ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
GRADUATE SCHOOL OF SOCIAL WORK

HIV/AIDS KNOWLEDGE, ATTITUDES AND PRACTICES AMONG PERSONS WITH SENSORY DISABILITIES IN ADDIS ABABA: THE CASE OF ENAB AND ENAD

SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTER'S DEGREE IN SOCIAL WORK (MSW)

BY

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MAY 2007

ADDIS ABABA
ETHIOPIA

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By

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May 2007

Addis Ababa
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Acknowledgement

I would like to acknowledge my advisor Charlla Allen (Ph.D.) for her comment and continuous encouragement that made the completion of this study possible. I also thank the staffs of ENAD and ENAB where the study was conducted. My special appreciation goes to all respondents who kindly volunteered to be part of the study. Mama and Grandma I won't forget your devotion for me since my childhood. Last but not least, I appreciate all my friends for their moral support throughout my study.

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Acronyms

AACAHB - Addis Ababa City Administration Health Bureau

AAHPCO-Addis Ababa City Government HIV/AIDS Prevention and Control Office

AIDS- Acquired Immunodeficiency Syndrome

ARRM- AIDS Risk Reduction Model

BCC- Behavioral Change Communication

BSS- Behavioral Surveillance Survey

CSA- Central Statistics Authority

DPA- Disabled People's Association

ECA- Economic Commission for Africa

EDHS- Ethiopian Demographic and Health Survey

ENAB- Ethiopian National Association for the Blind

ENAD- Ethiopian National Association of the Deaf

EFPD-Ethiopian Federation of Persons with disabilities

FDRE-Federal Democratic Republic of Ethiopia

HAPCO- HIV/AIDS Prevention and Control Office

HIV- Human Immunodeficiency Virus

IEC- Information, Education and Communication

JICA- Japan International Cooperation Agency

MOH – Ministry of Health

SPSS- Statistical Package for social Science

UN- United Nations

UNAIDS- Joint United Nations Program on AIDS

UNDP- United Nations Development Program

Abstract

A cross-sectional study was conducted to explore the HIV/AIDS knowledge, attitudes and practices of persons with sensory disabilities. A total of 96 non-randomly selected respondents were interviewed through questionnaire. Using a descriptive statistics data analysis was done. The overall result demonstrates lack of comprehensive prevention knowledge (46.6 %) as well as comprehensive knowledge about HIV transmission without misconception (11.5%). Sex, age, being married or unmarried did not result similar patterns of differences in comprehensive knowledge. However, similar result patterns were found with level of education and what type of disability. Poor attitudes and practices towards protection from HIV/AIDS were also documented. Despite a very high level of belief in the severity of the AIDS disease (88.5%), those who perceived themselves of being at risk of HIV/AIDS was very low (22.9%). Consistent condom use was not common and only 58.3% of the respondents knew how to use a condom correctly. Only forty-three percent (43.8%) respondents believed in the effectiveness of consistent and correct use of condoms to prevent HIV. In general, the survey result indicates the need for intervention programs to save the lives of the visually and hearing impaired from this deadly disease (HIV/AIDS).

Chapter One

Introduction

HIV/AIDS has become an obstacle for development efforts in African countries by aggravating the already existing poverty, reversing human development achievement, worsening gender inequalities, hindering government efforts to provide essential services and reducing the productive labor force (United Nations Development Program (UNDP), 2001; Economic Commission for Africa (ECA), 2003). The 2006 report on the global AIDS epidemic shows that in 2005, worldwide 2.8 million people have died due to AIDS, 4.1 million people have become newly infected, and a total of 38.6 million people are living with HIV/AIDS (Joint United Nations Program on AIDS (UNAIDS), 2006). According to the report there were favorable trends in many countries, including in Sub-Sahara Africa. However, compared to other regions of the world, Sub-Saharan Africa has remained the most affected region, where 64 % of the total population is living with HIV/AIDS and 66% of the newly infected live. More than 71 % of those who have died due to AIDS reside in this region.

In Ethiopia in 2005, an estimated 1.32 million people were living with HIV/AIDS. Of these 730,000 (55%) were women. The national adult HIV prevalence was also estimated to be 3.5%, (10.5% in urban areas and 1.9% in rural area) (HIV/AIDS Prevention and Control Office (HAPCO) & Ministry of Health (MOH), 2006). It should be noted that the epidemic is still affecting more women (4%) than men (3%). Furthermore, in 2005, a total number of 137,500 new AIDS cases, along with 128,900 newly HIV infections (53.2% for women), 134,500 AIDS deaths (54.5% for women) and 744,100 AIDS orphans (aged 0-17) were reported. In the same year the epidemic had also accounted for 34% and 66.3% of all adult (aged 15-49) deaths in the nation and in urban areas, respectively (HAPCO & MOH, 2006). In

general, trend analysis in the report shows stabilized HIV/AIDS prevalence, particularly in urban areas.

Addis Ababa has reported to have one of the highest concentrations of HIV/AIDS cases with 12.4 % a rate of prevalence. Despite many efforts to curb the problem, the number of HIV infections, new AIDS cases and AIDS deaths in the city show an increasing trend in recent years (MOH, 2004).

As indicated above, both the global and the national trends have sparked promising scenarios. Unfortunately, these reports tell us nothing about the status of persons with disabilities in general, and persons with sensory disabilities in particular. We know very little about this population of society in relation to HIV/AIDS (Groce, 2003; World Bank & Yale University, 2004) and even though the prevalence has stabilized it would be wrong to conclude that the change applies to all populations of society (Family Health International, 2000).

In line with the above statement, it is noted that people with disabilities are also exposed to HIV risk factors as equal to or at higher rates than their non-disabled counterparts. This necessitates the need for disability specific HIV/AIDS related interventions. Little is known or has been done at the global/regional (Africa) level with regard to HIV/AIDS and those who have disabilities (World Bank & Yale University, 2004). By analyzing the invisible position of persons with disabilities as vulnerable groups, in the 2001 United Nations (UN) Declaration on the Commitment of HIV/AIDS, Yousafizu and Edwards (2004) underscore the importance of addressing their needs by local HIV/AIDS programs as part of the overall aim of mitigating and reducing the HIV epidemic.

Cognizant of the seriousness of the HIV/AIDS problem, the National HIV/AIDS Policy calls for information, education and communication (IEC) programs to inform the population about HIV risk factors and encourage people to adopt protective behavior (Federal Democratic Republic of Ethiopia (FDRE), 1998). However, there is no documented description of the knowledge about HIV/AIDS transmission, prevention and risk factors among persons with sensory disabilities that facilitate designing and implementing appropriate (target specific) strategies and interventions. Thus, so as to address this gap in the literature, this research paper presents a systematic analysis of knowledge, attitudes and practices among the hearing and visually impaired.

Problem Statement

Different factors interact in a complex manner to acquire and spread HIV infection, which make the control and prevention of the epidemic difficult (Yayeh Negash, Betemariam Gebre, Daniel Benti & Mebratu Bejiga, 2003)[1]. The UN (2001) Declaration of Commitment on HIV/AIDS states poverty and illiteracy as the major contributing factors for the spread of HIV/AIDS in developing countries. In a similar tone, Aklilu and Haialom (2003) identify poverty as a major deriving force behind HIV/AIDS in Ethiopia.

The socio-economic statuses (being poor, uneducated, stigmatized and marginalized) of persons with disabilities within society present a unique challenge for them to access basic social services including HIV/AIDS related messages. As a result, they are exposed to all known risk factors of the HIV/AIDS infection (Groce & Trasi, 2004; World Bank & Yale University, 2004). The hearing and visually impaired also face significant disadvantages in most societies. Too often, they are not considered as a target group for HIV prevention

[1] In accordance with Ethiopian custom, the first name or given name is substituted for the surname and the father's name is spelled out in full.

education and AIDS outreach efforts because there is a misconception that they are not sexually active and exposed to risk HIV infection (D'Aubin, 2003; World Bank & Yale University, 2004). In many African countries, organizations that work in the area of HIV/AIDS and even organizations of persons with disabilities fail to recognize that people with disabilities are at risk of HIV/AIDS. These organizations do not consider this population in HIV/AIDS programs (Secretariat of the African Decade for Disabled Persons and Handicap International, n.a). However, realities show that compounded with their disabilities, poverty and illiteracy, HIV/AIDS is assaulting persons with disabilities like the non-disabled population (World Bank & Yale University, 2004; Yousafzi, & Edwards, 2004).

Studies made in Uganda and Rwanda revealed that persons with disabilities are also exposed to all known risk factors of HIV/AIDS. They tend to have many sexual partners, be involve in unstable relationships, are likely to be victims of sexual abuse and rape, have a low awareness and knowledge of HIV/AIDS, engage in unprotected sex, suffer from poverty, lack persons with disabilities targeted programs and access to HIV/AIDS related services and face discrimination and stigma (Yousafzi, & Edwards, 2004; Malindwa, 2003).

The situation of persons with disabilities in Ethiopia is not different. The existing negative values and misconceptions towards persons with disabilities have excluded them from the mainstream of society and provision of public services and special programs. This has resulted in making people with disabilities one of the poorest of the poor population in the nation (Tirusew Teferra, 2005; Kassahun Yebeltal, 2005). Similar to other African countries, lack of information on the number and status of this segment of the population is also one of the major problems in Ethiopia (Tirussew Teferra, Savolainen, H., Agedew Redie, & Daneil Desta, 1995; JICA, 2002). Tirusew Teferra (2005, p. 2) clearly indicates the seriousness of the

problem saying available data on the situation of persons with disabilities in Ethiopia is "fragmented, incomplete and sometimes misleading." This reality presents a challenge in designing and implementing persons with disabilities targeted programs based on empirical evidence. For instance, the National Baseline Survey on Disabilities (Tirussew Teferra, Savolainen, H., Agedew Redie, & Daneil Desta, 1995), which was conducted for the first time in Ethiopia, while mentioning socio-economic and psychological problems, failed to mention the problem of HIV/AIDS among persons with disabilities. On the other hand, a workshop report, by Ethiopian Federation of Persons with disabilities (EFPD) (2005) on Disability and HIV/AIDS, has reflected the high susceptibility of this population for HIV infection risk factors.

Population mobility, poverty and gender relationships are mentioned as factors at the macro level. Individual sexual behavior, the numbers of sexual partners, use of protection during sexual intercourse are taken as factors at the micro level in determining HIV infection (Fontanet & Piot 1997 cited in Bernardi, 2002). Unprotected sex with multiple sexual partners is the major means of HIV infections nationally and locally, in Addis Ababa (Addis Ababa City Administration Health Bureau (AACAHB), 1999; MOH, 2004). It is understood that there is a direct link between individual behavior and individual sexual practices that influence HIV infection (UNAIDS, 2000). Individual behavior can also be shaped by available target specific HIV/AIDS education. However, studies indicate that, particularly, HIV/AIDS related information is less accessible for persons with visual and hearing impairments because radio and television messages miss the deaf, while television and billboard messages don't reach the blind (Yousafzi, & Edwards, 2004; Malindwa, 2003; World Bank & Yale University, 2004).

This implies, it is not only necessary but also mandatory to have target specific HIV/AIDS intervention programs for sensory disabled populations.

Currently, preventing the spread of HIV/AIDS through IEC and behavioral change communication (BCC) remains as the top intervention strategy. More recently, to facilitate the response to the questions of what, who, how and when, while undertaking BCC interventions, the National HIV/AIDS Communication Framework has been developed (HAPCO, 2002). Given the existing HIV/AIDS prevention and control efforts, designing and implementing appropriate BCC strategies require understanding of the existing knowledge, attitudes and practices of the target population. Furthermore, getting specific information in this regard minimizes inefficient use of resources in fighting against the HIV epidemic (Family Health International, 2000;Yayeha Negash, Betemariam Gebere, Daniel Benti & Meberatu Bejiga, 2003). It also helps concerned organizations to see the threat of HIV among the segments of the population where it is not visible (Family Health International, 2000).

Objective of the Study

The overall objective of this research is to explore HIV/AIDS knowledge, attitudes and sexual practices among persons with sensory disabilities based on selected socio-demographic characteristics and to indicate the stage of the studied group in the behavioral change process.

Research Questions

To address the above mentioned objective the study tried to address the following research questions:

1. Does knowledge, and sexual practices of the studied population differ according to type of disability, age, biological sex, education level and marital status?

2. What is the attitude of survey respondents towards acquiring the AIDS virus (perceived susceptibility) and effectiveness of condom use to prevent HIV (perceived benefit)?
3. Are there risky sexual practices that may expose the studied population to HIV infection?

Operational Definitions

Attitude: attitude is an opinion or general feeling about something (Microsoft Encarta, 2007). In this study attitude is defined as a belief towards HIV disclosure (perceived risk of getting HIV) and belief towards the effectiveness (perceived benefit) of condom use in preventing HIV.

Disability: a condition caused by an accident, trauma, genetics or disease that may limit a person's mobility, hearing, vision, speech or cognitive function (Disabled People's Association (DPA), 2003).

Person with Disabilities: persons who are unable to see, hear or speak or is suffering from injuries that limit them due to natural or man made causes (Negarit Gazeta, 1994 cited in JICA, 2002).

Persons with Sensory Disabilities: those people who are visually handicapped, deaf or hard of hearing (DPA, 2003).

Knowledge: a clear awareness of a fact or a situation (Hornby, 1995). In this study it is defined as a clear and certain understanding of HIV/AIDS mode of transmission and prevention as well as condom use.

Comprehensive knowledge on HIV prevention: Respondents are considered having comprehensive knowledge on HIV prevention if they know abstinence, having a one

uninfected and healthy sexual partner, using condoms correctly and consistently during sex can prevent HIV and through antiretroviral treatment HIV transmission can be prevented from a pregnant woman to a unborn child. This indicator measures the extent to which those messages have reached persons with sensory disabilities.

Comprehensive Knowledge on HIV Transmission: knowledge on HIV transmissions without misconception. Respondents are considered having comprehensive knowledge on HIV transmission if they reject the following questions: can a person acquire HIV from mosquito bites? can a person acquire HIV by sharing a meal with someone who has HIV?, can a person acquire HIV by eating uncooked egg lied by a chicken that swallowed a condom?, can a person acquire HIV by eating raw meat *(*raw *kitiffo*) prepared by a HIV infected person? Can a person acquire HIV by touching the saliva or sweat of a person with HIV or AIDS? can a person avoid HIV transmission by drinking hard liquor and eating hot pepper? and know that a person can get HIV if injected with a needle that has been used by some one who is infected, know that that a healthy looking person can have HIV and know that a HIV infected pregnant woman can transmit the virus to her an unborn child. These indicators measure the progress made in reducing misconceptions among the studied group.

Regular partner: spouse(s) or live-in sexual partner(s) in the last 12 months prior to the survey.

Non-regular partner: Neither spouse(s) nor live-in sexual partner(s) in the last 12 months prior to the survey, including partner(s) with whom sex with payment was made.

Sexual practice: sexual intercourse with a member of the opposite sex.

Risky sexual practice: unprotected sexual intercourse (sex without condom use consistently) with non-regular partner(s) (Family Health International, 2000; CSA, 2005).

Condom: a sheath or covering which fits over a man's penis and which is closed at one end (Microsoft Encarta, 2007).

Ever married: a respondent who is living with a regular partner or separated/divorced/ widowed (formerly in marriage).

Chapter Two

Literature Review

Knowledge and Misconceptions about HIV/AIDS

Evidences from Uganda tell us that a well designed and contextualized behavior change in communication is an effective strategy in reducing HIV/AIDS infection (Green, Halperin, Nantulya & Hogle, 2006). In Ethiopia in response to the HIV/AIDS epidemic, different actors have implemented various programs geared towards behavioral change interventions using a variety of communication channels and approaches. However, many of such interventions have not yielded the intended outcomes (HAPCO, 2002). Studies that were conducted in the area of HIV/AIDS related knowledge, attitudes and practices also conform this reality. In the next sections, attempts are made to highlight some of the findings of different researches.

Available surveys on HIV/AIDS knowledge, attitudes and practices conducted in Ethiopia, show that unlike a high level of awareness about HIV/AIDS, many people lack adequate know-how about HIV preventions and transmission as well as have misconceptions. Besides, the studies make it clear that the disparity between knowledge and practice is also considerable. If we try to look at the situation at a national level, the recent Ethiopian Demographic Health Survey (EDHS) report discloses a high level of awareness among both sexes aged 15-49 (90% for women and 97% for men). However, relatively lower percentages of both sexes believe that there is a way to avoid HIV/AIDS (81% for women and 93% for men), and only 37% of women and 57% of men are aware that using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of getting the AIDS virus. Whereas, only 40 % of women and 64 % of men know that using a condom during sexual

intercourse can reduce the risk of HIV infection (Central Statistics Authority (CSA), 2005). Similarly, the preliminary findings of the round two Behavioral Surveillance Survey (BSS) reveals that despite the high level of awareness about HIV/AIDS (more than 98 %), only about 55 % knew all the three methods of HIV prevention (abstinence, faithfulness and use of condoms--the ABC principles) (HAPCO & MOH, 2005). A study conducted in Gambella town discloses that among the total 359 interviewed individuals, only 0.9% knew about mother to child transmission (Yayeh Negash, Betemariam Gebre, Daniel Benti, & Mebratu Bejiga, 2003); despite the fact that about 10% of new HIV infections in Ethiopia accounts for mother-to-child transmission (MOH, 2004).

The prevalence of misconceptions about HIV transmission is also very common. For example, according to the EDHS report, among the total respondents only 27% of women and 42% of men reject the two most common misconceptions in Ethiopia (AIDS virus can be transmitted by mosquito bites and a person can be infected if he/she shares food or utensils with an infected person) (CSA, 2005). Similarly, the preliminary findings of the second round BSS (HAPCO & MOH, 2005) show that local misconceptions, like eating uncooked eggs produced by a chicken that has swallowed a condom could transmit HIV, and eating raw meat prepared by an HIV-infected person could transmit the virus, still remain high, among more than 40% of all studied groups, except the in-school youth, 10%.

The assessment of comprehensive knowledge of HIV/AIDS prevention and transmission results of the EDHS, and the second round BSS also depict a lack of comprehensive knowledge of HIV/AIDS prevention and transmission among the majority of the population. According to the findings of these surveys, it is less than 20% of the

respondents that knew all three preventive methods, with no misconceptions (HAPCO & MOH, 2005; CSA, 2005).

Small surveys that have been conducted in different settings also disclose the presence of misconceptions among different sections of the population. For instance, Beyene Petros, Solomon Belayneh and Yared Mekonnen (1997) interviewed 1,214 students of Addis Ababa University and find out that in spite of a high level of knowledge about HIV/AIDS, 43% of the students considered vaccination as one of the modes of HIV transmission. In a similar study, conducted at Jimma University, out of 500 interviewed students, 58.1% did not know that persistent use of condoms prevents HIV/AIDS, and 16% were not aware that a seemingly healthy looking person can transmit HIV (Tefera Belachew, Challi Jira, & Yoseph Mamo, 2004). The results of these surveys tell us the presence of widespread misconceptions about HIV/AIDS among those who are said to have better access to education and HIV/AIDS related information.

Like the non-disabled persons, people with disabilities also exhibit misconceptions about HIV/AIDS. A study conducted among 341 persons with disabilities in Malawi discloses that, in spite of good knowledge about HIV transmission and prevention, misconceptions such as HIV can be transmitted through the sharing of clothes or eating with someone who has the AIDS virus, and using condoms during sex, as well as mosquito bites was significant (Munthali, Mvula & Ali, 2004). A survey result from Rwanda shows that though awareness about HIV/AIDS is almost universal, only 6% of both males and females cite HIV testing as the only means through which people can know their HIV status (Malindwa, 2003). All in all, the above reviewed research results attest to the fact that, regardless of high level of

HIV/AIDS awareness, there is still low comprehensive knowledge of HIV/AIDS prevention and transmission.

Sexual Practices

Given the fact that the most prevailing mode of HIV transmission is heterosexual behavior, which accounts for more than 87% of new HIV infections in Ethiopia (MOH, 2004) avoiding risk behaviors by limiting the number of sexual partners, delaying individual sexual debuts and having protected sex is crucial in the prevention and control of the HIV/AIDS pandemic (CSA, 2005). As the HAPCO & MOH (2006) AIDS in Ethiopia report points out, in addition to a high level of urban HIV/AIDS prevalence at 10.5%; the behavioral indicators such as condom use are not at desired levels. In line with this, the 2005 EDHS findings demonstrate that among those who had had sexual intercourse (in the past 12 months before the survey) 0.9% of women and 4% of men had two or more sexual partners. A larger proportion, 3% of women and 9% of men were involved in higher risk sexual intercourse. The same report also discloses that among those who were practicing higher risk sex, only 24 % of women and 52% of men used condoms during the last time they had sex. Among sexually active youth, who engaged in high-risk sexual activity, only 25% of women and just under half of men used condoms in their last higher risk sexual encounter (CSA, 2005). Additionally, both the first and the second BSS findings also demonstrate inconsistent use of condoms by a significant proportion of respondents who have had multiple partners; though they knew that condoms would protect them from HIV infection (HAPCO, 2002 & HAPCO & MOH, 2005).

Small-scale surveys conducted targeting specific groups demonstrate the discrepancy between knowledge and practice. For instance, a study conducted at Jimma University shows

that regardless of a high level of knowledge, out of 166 (33.1%) students who had sexual intercourse, 18.9% had multiple sexual partners. Further, more than one-third of the students who were involved in high risk sexual practices (sex with multiple partners and with prostitutes) failed to use condoms consistently (Tefera Belachew, Challi Jira, and Yoseph Mamo, 2004). A similar study conducted among Addis Ababa University students also disclosed that among those sexually active respondents, 315 (30%) admitted having one or more lovers and the highest proportion, 802 (66%), never used condoms at all (Beyene Petros, Solomon Belayneh & Yared Mekonnen 1997).

Studies conducted in Rwanda, Malawi and Zimbabwe divulge the presence of high awareness about condoms among persons with disabilities (Mulindwa, 2003; Munthali, Mvula & Ali, 2004; Patrick & Matonhodze, 2004). However, these studies also demonstrate the discrepancy between knowledge and the use of condoms. In Rwanda, for example, regardless of universal knowledge about condoms, 94% of males and 90% of females who ever used condoms was very low, 39% for males and 26% for females (Mulindwa, 2003). In Malawi although 81.7% knew what a condom was, 42% did not know how to use a condom and out of the total respondents who reported to have sex (76%), only 27.2% tried to use condoms (Munthali, Mvula & Ali, 2004). Surprisingly, the research finding from Zimbabwe documented that all the respondents (who participated in focus group discussions) had never seen a female condom and few had seen the male condom (Patrick & Matonhodze, 2004). Furthermore, the findings of all the studies emphasize regardless of adequate knowledge about HIV transmission and prevention methods, the practicalities of using a condom by the visually handicapped raised as a major challenge. This is due to the fact that proper use of a condom necessitates reading of the expiration date, which the visually impaired could not do by

themselves (Mulindwa, 2003; Munthali, Mvula & Ali, 2004; Patrick & Matonhodze, 2004, Yousafzi & Edwards, 2004).

The timing and the circumstances under which the first sexual activity occurs also have significant implications in exposing individuals to HIV risk factors. In most Sub-Saharan countries, individuals especially the youth are exposed to HIV/AIDS, as they fail to use a condom during their first sexual relationship. The situation is more severe for women due to their weaker power to negotiate safer sex (PRB, 2001) as they are not the gatekeepers of actually utilizing the more popular male condom.

According to the EDHS (CSA, 2005) findings, among youth aged 15-24, 16% of young women and 2% of young men had first sex by the age 15. Thirty-five percent (35%) of young women and 9% of young men had first sex by the age 18. Of these only 1% of females and 17% of men used condoms during their first sexual encounter. According to a study conducted by Zelalem Fekadu (2001) female adolescents in Addis Ababa initiate sexual activities as early as 11 years of age and the mean age at first condom use is 17 years of age. The gap between the age at sex-debut and first condom use speaks to the sexual risk tendency situation.

While looking at studies conducted among persons with disabilities, a study from Rwanda reveals that out of 371 interviewed 85% of persons with disabilities have started practicing sex. Females on average start sexual intercourse at the age of 16, two years earlier than men and 42% of females were forced to have sex (Mulindwa, 2003). Another study discloses that in Malawi among 341 individuals interviewed, 76 % have had sex and a first sexual intercourse encounter was between the ages of 15 to 20 years. Of those who had sex, 17.1% had been forced to have sexual intercourse against their will (Munthali, Mvula & Ali,

2004). In both the aforementioned studies, it should also be noted that a lack of perceived risk, fear of losing a partner if refused to have sex without condom, attitudes about condoms and sex, gendered power relations and the economic context of sexuality as well as the circumstance under which the disabled people were forced to have sex have been mentioned as reasons not to use condoms during sexual intercourse.

Attitude towards Getting HIV (Risk Perception)

Different psychosocial literatures on health related behavior emphasize the perception of being at risk of HIV/AIDS infection as one of the necessary conditions for preventive behavior to be adopted (Barnardi, 2002; Catania, Kegeles & Coates, 1990). Indicating the relationship between knowledge, attitudes and practices, Zenabu Abera (1999) pointed out that intervention in curbing the spread of HIV/AIDS could be achieved when individuals acquire knowledge and then create the desired attitude, which finally leads to behaviors modification or health seeking behavior. Which means, low risk perception of can lead to unprotected sexual practice through reduced or non-consistent condom use (Bernardi, 2002, Catania, Kegeles & Coates, 1990).

In Ethiopia the prevalence of low risk perception has been observed from different research results. For instance, both the first and the second BSS, show the prevalence of low risk perception in almost all surveyed groups of the population, especially among those respondents who had unprotected sex with non-regular partners (HAPCO, 2002; HAPCO & MOH, 2005). Moreover, of the total sexually active Addis Ababa University students, 474 (39%) considered themselves as a high risk group and 219 (18%) believed that AIDS is not their problem (Beyene Petros, Solomon Belayneh & Yared Mekonnen , 1997). Seven years latter, Tefera Belachew, Challi Jira, and Yoseph Mamo, (2004) conducted a similar study at

Jimma University and find out that that 56.3% of the students who were involved in unprotected sex with casual partners do not recognize that they are at risk of HIV infection, despite the fact that their knowledge of HIV/AIDS transmission and prevention was high.

A finding from the survey in Rwanda demonstrates that among persons with disabilities who engage in high-risk sexual practice, only 55% of females and 44% of men consider themselves at risk of contracting HIV (Mulindwa, 2003). In Zimbabwe mostly disabled men perceived themselves to be at lower risk to HIV infection (Patrick & Matonhodze, 2004).

Thus, the above reviewed research attests that sexual related practices as well as attitude towards HIV disclosure has not changed as desired. We still lack the knowledge to say confidentially something about persons with sensory disabilities.

AIDS Risk Reduction Model (ARRM) and Conceptual Framework

In HIV/AIDS prevention literature there are many behavioral change models that are used to analyze how individual behavior change occurs. Among others the Health Belief Model; AIDS Risk Reduction Model; Stages of Change; and Theory of Reasoned Action are the four major cited models or theories (Family Health International, 1999). Moon (2002) points out that knowledge, attitudes and practices in relation to HIV/AIDS are used to identify where the populations in questions are in terms of changing behavior and what interventions are needed. Among the available theories/models of behavior change, ARRM has been developed by Catania, Kegeles and Coates, (1990), and is chosen for this research. This model incorporates components from other behavior change theories. ARRM was specifically developed to look at individuals' behavior change efforts in relation to the sexual transmission

of HIV/AIDS, which is the main reason for the spread of HIV/AIDS in Ethiopia (MOH, 2004).

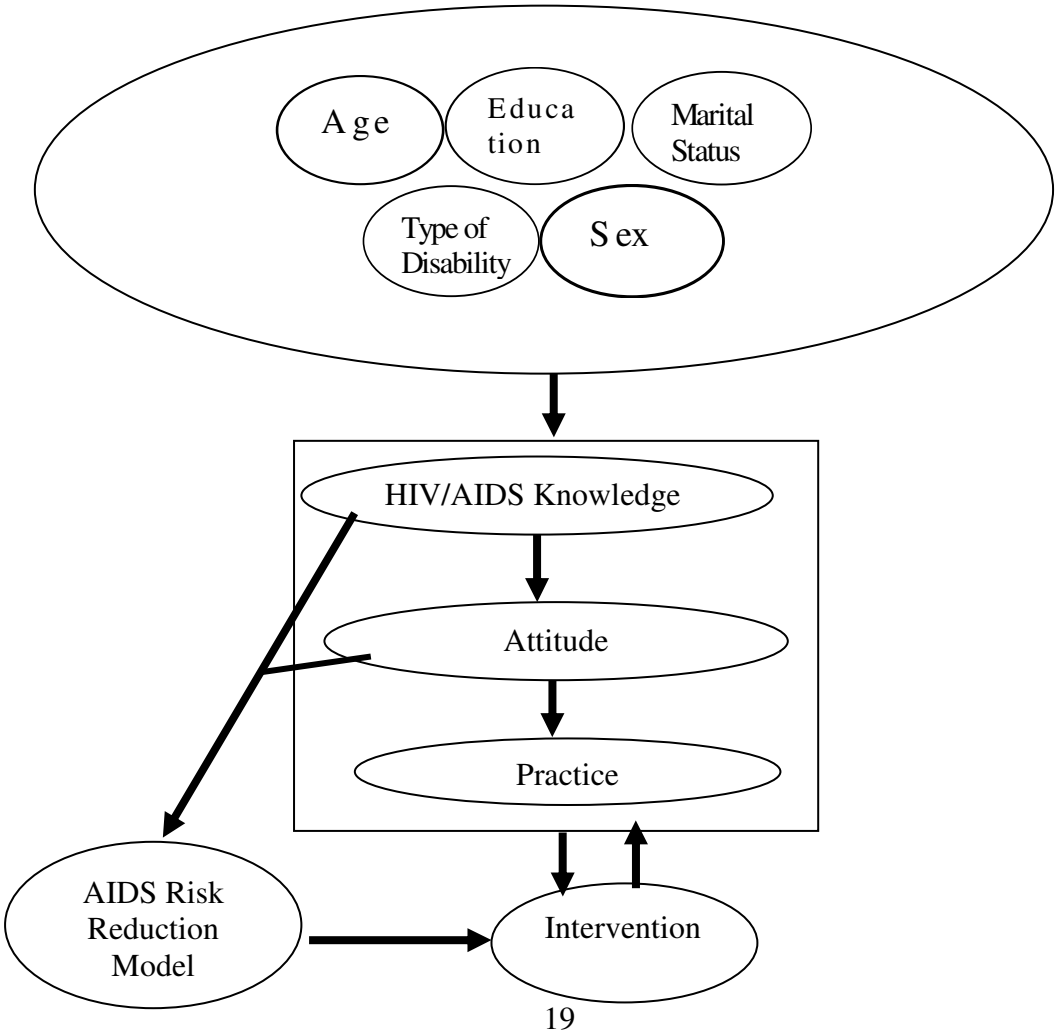
There are three stages in ARRM: 1) problem perception, 2) commitment to change, and 3) taking action. For each stage the model hypothesized factors that influence individuals' efforts for successful completion. The first stage of problem perception is recognizing the problem, using three factors. These are knowledge of HIV transmission methods, the belief that one is susceptible, and the belief that AIDS is undesirable. Social norms and networks may also influence the individual by disapproving high-risk behaviors and approving safe alternatives (Catania, Kegeles & Coates, 1990).

In the second stage individuals make a commitment to change. The hypothesized factors that influence individuals include perceived psychological and social costs, as well as benefits to make a decision about commitment. These costs and benefits reflect three areas: knowledge of health utility (response efficacy), and enjoyment of sex, actual success in reducing the risk of HIV, and the ability to perform the action (self-efficacy). Social factors (group norms and social support) are also believed to influence an individual's cost and benefit to make a decision about commitment as well as self-efficacy beliefs (Ibid).

In the final stage, individuals will take action to make the behavior change. There are three phases in this stage: looking for information, finding solutions (obtaining remedies), and carrying out the solutions. Depending on the individual phases, these behaviors may happen concurrently or some phases may be skipped. These three phases can occur through social networks and problem-solving choices (self-help, informal help, and/or formal or professional help). Prior experiences with problems and solutions; level of self-esteem; resource requirements of acquiring help; ability to communicate verbally with sexual partner and

sexual partner's beliefs and behaviors also influence the successful accomplishment of this stage (Ibid).

According to ARRM, there are also internal and external motivators that influence the individual movement from one stage to another. For instance, adversive emotional states and distress over HIV/AIDS may increase the perceived seriousness of the problem. External cues/motivators such as public education messages that detail risk behavior and the image of people dying from AIDS may help a person to examine his/her behavior and readiness for change (Family Health International, 1999; Catania, Kegeles & Coates, 1990). Based on the reviewed literature for this particular research the following conceptual framework has been developed.



As indicated in the conceptual framework the socio-demographic characteristics of the study population, which serve as explanatory variables in HIV/AIDS, related surveys (Family Health International, 2000) are linked with the outcome variables knowledge, attitudes and practices. Then, by analyzing the level of knowledge and attitudes of the target population under the framework of the ARRM the position of the target population in the behavior change process can be determined. Finally, based on the findings appropriate recommendations will be forwarded.

Chapter Three

Research Methodology

Design

A cross-sectional study design was used to explore the knowledge, attitudes and practices of persons with sensory disabilities in Addis Ababa to produce quantitative data in response to the major research questions, by employing a survey method of data collection. First, a review of literature was made to develop data collection instruments. In the second stage, to secure relevant information about the target population, contact with the Ethiopian National Association for the Blind (ENAB) and the Ethiopian National Association of the Deaf (ENAD) was made.

Using a non-random sampling technique, a total of 96 survey participants from ENAB and ENAD were selected. Subjects of the study were asked to participate anonymously in a survey style questionnaire, in a one-to-one interview format with the investigator and five enumerators (two men and three women). All the first-hand data was collected in Amharic. Each respondent was told the purpose of the study, confidentiality of all information and his/her right to terminate if there was a feeling of discomfort. Finally, each questionnaire was coded; the collected data was cleared and entered into the Statistical Package for Social Science (SPSS) windows version 12.0 for analysis.

Sampling

The overall guiding principle of the study sample was governed by the nature of the target population. As subjects of the study were not living in specific location, there was no so far stipulated figure that can serve as a reliable sampling frame to draw a random sample. Consequently, purposive quota sampling technique was used to select respondents in a non

random manner. As access to subjects of the study was not easy, informal contacts between the investigator and staffs of two major national associations, ENAB and ENAD, where the target populations found in large number was made. In addition to pervious informal contacts between the investigator and staffs of two national associations, permission to collect data in the premises of the two associations was secured through an official letter from Addis Ababa University, Graduate School of Social Work.

The first attempt to draw a representative sample from membership lists of the two associations using appropriate sampling formula was aborted owing to three reasons. First, the associations did not have updated membership list. Second, both associations have thousands of members who fall under the age criterion used in this study. Third, the finance allocated by the Graduate School of Social Work to carry out this study was insufficient to accommodate larger number of respondents in the sample. Accordingly, by considering the available resources at hand to conduct the research (finance and time to complete the study), an appropriate time when the target populations were found in large number in the premises of the two associations identified. It was learned that people with visual impairments gather and chat in ENAB premise from Monday to Friday from 4:00 pm to 6:00 pm and on Saturday from 9:30 am to 3:00 pm. Individuals with hearing impairments were also found in large number in the premise of ENAD on Tuesday, Friday and Saturday from 3:00 pm to 5:00 pm as they come to entertain from recreational programs organized by the association.

To select respondents, individuals who appeared to fit the age criterion (15-49 years of ages) were approached and asked if they would participate in a short interview about HIV/AIDS. This age criterion was used with the assumption that most of the time those who are within this age group are sexually active and highly engage in heterosexual activity, which

is the main reason for HIV transmission among sexually active Ethiopian population (MOH, 2004). A total of 96 non random selected volunteer respondents were included in the sample. In order to ensure equal representation of both sexes and persons with visual impairment and persons with hearing impairments in the study sample, a quota sampling technique was applied. Accordingly, 48 men and women, each (24 in each category of sensory disability) were included in the sample.

Data Collection

Instrument Development

To collect quantitative data using the survey method, a structured and pre-coded questionnaire was used. Most of the questionnaire items were adopted from the Behavioral Surveillance Survey questionnaire prepared for adult populations between 15-48 years of age (Family Health International, 2000), and a questionnaire obtained from Center for Disease Control and Prevention (CDC). In addition, related literature of the research problem area was used to identify local misconceptions about HIV transmission (Zenabu Abera, 1999;BSS, 2002; CSA, 2005). The questionnaire, which was obtained from the CDC with both Amharic and English languages, facilitated the development of the Amharic version of the questionnaire. A volunteer who has good command of English and Amharic languages also helped in developing the final version.

The questionnaire was categorized into four sections to capture the socio-demographic data of the respondents that are assumed to associate with the outcome variables; knowledge on HIV prevention and transmission, risk perception, individual sexual practices, as well as knowledge about condom and perceived benefits of condoms (see appendix 1).

Procedures used to adapt the Instrument and Data Collection

Prior to collecting the data six sensory disabled individuals (three visually impaired and three hearing impaired) volunteers were interviewed to make sure that participants could easily understand the items of the survey during the main data collection period. After administering the questionnaire, participants were asked feedback and unclear items were modified to minimize items ambiguity and limitation of response categories.

For data collection, five enumerators, all graduates of high school were recruited. Two of them had the ability to communicate in sign language. The reason to use enumerators was: first, preparation of the questionnaire with Braille for visually impaired was not possible; second, females were not willing to participate in the survey when asked by the investigator, who was a male; and thirdly, the only way to communicate with hearing impaired individuals was sign language. Enumerators were provided a half-day training on objectives of the survey, on items included in the survey questionnaire, as well as editing errors on completed questionnaires. Enumerators were also told they must obtain the full consent of the respondent before filling out the questionnaire.

Each respondent was told the purpose of the study, confidentiality of all information was assured, and his/her right to terminate if there was a feeling of discomfort was presented. No names or any identification of respondents were written on the questionnaires to ensure confidentiality. In the process of data collection five interviewees withdrew from the interview and replaced with other voluntary respondents. Data was collected from March 14-25, 2007.

Measurement

Knowledge on HIV Prevention and Transmission as well as Condom

For general knowledge on HIV/AIDS a total of 15 questions [two questions addressed awareness (Q.201 and Q.202), nine questions addressed simple understanding of transmission routes of HIV and associated misconceptions (Q.204, Q.205, Q.206, Q.207, Q.208, Q.209, Q.210, Q.213 and Q.214) and four questions (Q.203, Q.211, Q.212 and Q.215) addressed knowledge of HIV prevention] were asked. Individuals who knew all the prevention questions were considered as having high comprehensive HIV prevention knowledge. Similarly, respondents who knew all of the nine items that addressed the transmission route were regarded as having very high comprehensive knowledge on HIV/AIDS transmission.

Respondents' knowledge about condoms was also assessed through four questions (Q401, Q.402, Q.403 and Q.404) that evaluate respondents' awareness about condom, where to get a condom and ability to use condoms correctly.

Attitudes

In order to determine the level of respondents' risk perception, two interrelated questions were included in the survey questionnaire (Q.216 and Q.217). Q. 216 examines respondents' belief towards the severity of the AIDS disease and Q.217 examines their perceived susceptibility to HIV. Further, a single question (Q. 405) was used to examine respondents' feeling of the perceived benefit (attitude) towards the effectiveness of condoms to prevent HIV.

Sexual Practice

Nine questions that indicate sexual practice/sexual history of respondents were included in the survey questionnaire. Q.301-304 used as indicators whether the respondent

ever had sex or not, age at first sex, circumstance of first sexual encounter and whether she/he used a condom during first sex. The remaining items Q305-309 measure the respondents' sexual experiences in the last 12 months prior to the survey. Items include whether the respondent had sex in the past 12 months, how many regular or non-regular partner(s) he/she had and the frequency of condom use.

Data Analysis

Data analysis was descriptive in nature outlining the proportions of answers to question items, by selected socio-demographic characteristics of the respondents. In the analysis, descriptive statistics such as the mean, median, and mode, frequencies, proportions, average and odds ratio (OR) were used. In the bivariate analysis association between a given outcome variable and a given background characteristic of respondents, was assessed using the chi square (X^2) test. P values less than 0.05 were used to decide whether observed differences in proportions were statistically significant or not. The collected data was cleared and entered into SPSS windows version 12.0 for analysis. Before data entry, each questionnaire was coded and cleared. By entering the data twice, error identification and corrections were made.

Ethical Concerns

In the processes of the study, a number of measures have been taken to observe basic ethical standards. As the population was persons with disabilities, while developing the data collection instrument, as well as, when interviewing survey respondents', necessary pre-cautions were taken to avoid the use of derogatory words. As previously stated, each respondent was told the purpose of the study, explained about confidentiality of all

information and his/her right to terminate if there was a feeling of discomfort. No names were written on the questionnaires to ensure confidentiality.

Contribution of the Study

The prime objective of this research is to assess HIV/AIDS knowledge, attitudes and sexual practices among persons with sensory disabilities. Thus, the findings of this research can serve as valuable input to plan sound and effective intervention because it has provided timely information and identified the level of comprehensive knowledge on HIV prevention and transmission among the studied population. Their risk perception and risky behaviors that increase their vulnerability to HIV/AIDS are also identified. Further, the study could serve as a springboard by providing baseline information to other interested researchers to take an issue and investigate further.

Chapter Four

Results of Data Analysis

Socio-Demographic Characteristics of Respondents

This section first looks at key characteristics of the studied population that help to explain the knowledge, attitude and sexual practices. Accordingly, data on respondents' biological sex, type of disability, religious background, highest completed level of education, occupation and marital status were collected and analyzed.

As can be seen from table 4.1 a total of 96 individuals have participated in the survey. Out of this number, persons with visual and hearing impairments constituted equal proportion of 48 (50%) each. Similarly, the proportion of females was equal to men, 48 (50%) each. Further, in each category of sensory disability (visual impairment and hearing impairment) both sexes had had equal representation, at 24 (50%) each.

Table: 4.1 Respondents' Biological Sex and Type of Disability

			Type of Disability		
			Visual Impairment	Hearing Impairment	Total
Biological sex	Male	Count	24	24	48
		%	50.0%	50.0%	100.0%
	Female	Count	24	24	48
		%	50.0%	50.0%	100.0%
	Total	Count	48	48	96
		%	50.0%	50.0%	100.0%

Respondents were asked to indicate their religious preference during the survey and were classified into two major categories of religion, namely Christian and Islam. Out of the total number of respondents, the majority 88 (91.7%) were from a Christian background. The remaining 8 (8.3%) were followers of Islam. Looking at the distribution in terms of respondents' biological sex, while 43 (89.6%) men and 45 (93.8%) females were from a

Christian background, the remaining 5 (10.4%) men and 3 (6.3%) females identified themselves as Muslims. Table 4.2 presents the result.

Table: 4.2 Respondents' Biological Sex by Religious Background

			Religious Background		
			Christian	Muslim	Total
Respondent's biological sex	Male	Count	43	5	48
		%	89.6%	10.4%	100.0%
	Female	Count	45	3	48
		%	93.8%	6.3%	100.0%
Total		Count	88	8	96
		%	91.7%	8.3%	100.0%

With regard to age, the age of the respondents ranges from 15 to 48, with the mean of 26.59 (standard deviation=7.232), the median 25, and the mode 23. Respondents were further grouped into five age categories. The first category was comprised of individuals between 15-19 years of age. The second category was for those between the ages of 20-24. The third category was comprised of individuals in the age range of 25-29. The fourth category was comprised of respondents between the ages of 30-34, and finally those who were 35 years and above were grouped together.

Accordingly, as indicated in table 4.3, out of the total surveyed population 9 (9.4%) [3 (6.3%) men and 6(12.5%) females] were in the category of 15-19 years of age, 38 (39.6%) [15 (31.3%) men and 23 (47.9%) females] were in the category of 20-24 years of age, 23 (24%) [10 (20.8%) men and 13 (27.1%) females] were in the category of 25-29 years of age, 12 (12.5%) [9 (18.8%) men and 3 (6.3%) females] were in the category of 30-34 years of age, and 14 (14.6%) [11(22.9%) men and 3 (6.3%) females] were in the category of 35-48 years of age.

Table: 4.3 Respondents' Biological Sex and Age Group

			Age Group					Total
			15-19	20-24	25-29	30-34	35-48	
Biological sex	Male	Count	3	15	10	9	11	48
		%	6.3%	31.3%	20.8%	18.8%	22.9%	100.0%
	Female	Count	6	23	13	3	3	48
		%	12.5%	47.9%	27.1%	6.3%	6.3%	100.0%
Total		Count	9	38	23	12	14	96
		%	9.4%	39.6%	24.0%	12.5%	14.6%	100.0%

As indicated in the FDRE (2006) report, HIV prevalence was more pronounced in the younger age group of 15-30 years and the highest HIV prevalence was also said to occur among adults aged 15-24. Looking at the age distribution of the studied group 70 (73%) respondents were found with in the age group of 15-29 that can be considered as high risk.

Respondents were also asked to identify the highest completed level of education and categorized accordingly. Out of the total respondents 22 (22.9%)[9 (18.8%) men and 13 (27.1%) females] were below the primary second cycle (Grade 8), 50 (52.1%) [23 (47.9%) men and 27 (56.3%) females] reported their highest completed level of education as being the secondary cycle (high school) and 24 (25%) [16 (33.3%) men and 8 (16.7%) female] had a college/university level of education. From the data it is possible to observe that, more than half of the respondents were recipients of a high school level of education. Further, men were more likely than females to complete a higher level of education. Results of the analyses are presented in the next table.

Table: 4.4 Respondents' Biological Sex and Highest Completed Level of Education

			Highest Education Level Completed			Total
			Below Primary Second Cycle (Grade 8)	High School (grade 9-12)	College/University	
Sex	Male	Count	9	23	16	48
		%	18.8%	47.9%	33.3%	100.0%

	Female	Count	13	27	8	48
		%	27.1%	56.3%	16.7%	100.0%
Total		Count	22	50	24	96
		%	22.9%	52.1%	25.0%	100.0%

Table 4.5 depicts the occupational distribution of the respondents. The majority, 40 (40.7%) [16 (33.6%) men and 24 (50%) females] were students, followed by salary-employed 24 (25%) [13 (27.1%) men and 11(22.9%) females]. Those who were unemployed were 17 (17.7%) [9 (18.8%) men and 8 (16.7%) women]. Those identified as self-employed were 15 (15.6%) [10 (20.8%) men and 5 (10.4%) women].

Table:4.5 Types of Occupation by Biological Sex

			Respondent's Occupation				Total
			Salary employed	Unemp loyed	Self employed	Studen t	
sex	Male	Count	13	9	10	16	48
		%	27.1%	18.8%	20.8%	33.3%	100.0%
	Female	Count	11	8	5	24	48
		%	22.9%	16.7%	10.4%	50.0%	100.0%
Total		Count	24	17	15	40	96
		%	25.0%	17.7%	15.6%	41.7%	100.0%

One of the socio-demographic variables included in the questionnaire asked the respondents about their current marital status. Of the total studied population, 78 (81.3%) [39 (81.3%) men and 39 (81.3%) females] were never married, 18 (18.8%) [9(18.8%) men and 9 (18.8%)] female were ever married. The results of the analyses are indicated in table 4.6.

Table: 4.6 Biological Sex and Marital Status

			Marital Status		Total
			Never Married	Ever Married	
sex	Male	Count	39	9	48
		%	81.3%	18.8%	100.0%
	Female	Count	39	9	48
		%	81.3%	18.8%	100.0%
Total		Count	78	18	96
		%	81.3%	18.8%	100.0%

HIV/AIDS Knowledge

Awareness about HIV/AIDS

Two survey questions were included in the questionnaire to assess the HIV/AIDS awareness of survey participants. The first one asked respondents whether they heard about HIV or AIDS and the second question probed whether they knew some one infected with HIV or died of AIDS. Although all respondents 96 (100%) reported that they have heard about HIV/AIDS a lesser proportion of 80 (83.3%) knew someone with HIV or someone who had died of AIDS. Disaggregated by biological sex a higher proportion of 42 (87.5%) men knew someone with HIV or someone who had died of AIDS as compared to 38 (79.2%) female respondents. Similarly, slightly a higher proportion of persons with visual impairment 42 (87.5%) respondents compared to 38 (79.2%) respondents with hearing impairments had reported knowing someone who had HIV or someone who had died of AIDS. The analyses results are depicted in table 4.7

Table: 4.7. Awareness about HIV/AIDS

			Heard about HIV/AIDS			Know someone with HIV or died of AIDS		
			No	Yes	Total	No	Yes	Total
sex	Male	Count	0	48	48	6	42	48
		%	.0%	100.0%	100.0%	12.5%	87.5%	100.0%
	Female	Count	0	48	48	10	38	48
		%	.0%	100.0%	100.0%	20.8%	79.2%	100.0%
Total		Count	.0	96	96	16	80	96
		%	.0%	100.0%	100.0%	16.7%	83.3%	100.0%
Type of Disability	Visual Impairment	Count	0	48	48	6	42	48
		%	.0%	100.0%	100.0%	12.5%	87.5%	100.0%
	Hearing Impairment	Count	0	48	48	10	38	48
		%	.0%	100.0%	100.0%	20.8%	79.2%	100.0%
Total		Count	.0	96	96	16	80	96
		%	.0%	100.0%	100.0%	16.7%	83.3%	100.0%

Looking at the level of awareness by other type of respondents' characteristics data analysis revealed 14 (63.6%) of respondents below primary cycle educationally, 44 (88%) of secondary cycle and 22 (91.7%) of college/university levels of education knew some one infected with HIV or someone who had died of AIDS. The observed difference in proportions was statistically significant (X^2=8.129, N=96, 2df[2], p=. 017). (See Appendix 2 Table: 1)

In terms of marital status 63 (80.8%) of the unmarried and 17 (94.4%) of the ever-married respondents knew someone with HIV or someone who had died of AIDS. On the other hand, 15 (19.2%) of the never married and 1 (5.6%) of ever married respondents, reported not knowing someone with HIV or someone who had died of AIDS. (See Appendix 2 Table: 1). Considering the association with age category, a higher proportion of 13 (92.9%) respondents in the age category of 35-48, followed by 20 (87%) respondents in the age group of 25-29, and 32 (84.3%) respondents in age group of 20-24, with 7 (77.8%) in the age group of 15-19 and 8 (66.7%) respondents in the age category of 30-34 had reported knowing someone infected with HIV or someone who has died of AIDS. (See Appendix 2 Table: 1)

Knowledge about HIV Transmission and Prevention

Having adequate knowledge about HIV/AIDS is one of the important factors in adopting safe behavior (HAPCO, 2003). The study explored the level of knowledge regarding HIV transmission and prevention among persons with sensory disabilities. For general knowledge on HIV transmission and prevention a total of 13 questions (nine questions that addressed simple understanding of transmission routes of HIV and four questions that addressed general knowledge on HIV prevention) were asked. Knowledge of HIV prevention methods and the absence of misconceptions about HIV transmission are the two major indicators presented in this subsection.

[2] Degrees of freedom

Comprehensive Knowledge on HIV Prevention

HIV/AIDS prevention messages focus on four important aspects of behaviors; abstinence, staying faithful to one uninfected and healthy partner, use of condoms and reducing the risk of mother to child transmission through antiretroviral therapy (CSA, 2005). To explore the level of knowledge with regard to the above major prevention methods specific questions were prompted. Out of the total 96 respondents, only 39 (46.6%) have comprehensive knowledge on the four prevention methods. A larger proportion of 57 (59.4%) respondents failed to have comprehensive knowledge (at least in one of the four prevention methods). Disaggregated by biological sex, female respondents scored a slightly higher proportion at 22 (45.8%) as compared to 17 (35.4%) male respondents. Men were 1.19 times less likely than females to know all the prevention methods (OR=1.192, N=96, 95%CI[3], .854, 1.665). The proportion at 23 (47.9%) persons with visual impairments was also higher as compared to the proportion of 16 (33.3%) for persons with hearing impairments. Visually impaired were 1.84 times more likely than hearing impaired to know all the prevention methods (OR=1.84, N=96, 95%CI, .806, 4.199). Table 4.8 provides the analyses results.

Table: 4.8 Proportions for Knowledge on HIV Prevention by Sex and Type of Disability

			Miss at Least One	Know All	Total
Sex	Male	Count	31	17	48
		%	64.6%	35.4%	100.0%
	Female	Count	26	22	48
		%	54.2%	45.8%	100.0%
Total			57	39	96
			59.4%	40.6%	100.0%
Type of Disability	Visual Impairment	Count	25	23	48
		%	52.1%	47.9%	100.0%
	Hearing Impairment	Count	32	16	48
		%	66.7%	33.3%	100.0%
Total			57	39	96
			59.4%	40.6%	100.0%

[3] Confidence interval

Among the four prevention method questions, while 36 (75%) of the respondents with visual impairments knew about the possibility of reducing vertical HIV transmission (mother to child) through antiretroviral therapy, only 24 (50%) of the respondents with hearing impairments had the same knowledge. The difference in proportions was statistically significant (X^2=6.400, N=96, 1 df, p=. 011). This difference may attribute to access of HIV messages by the visually impaired individuals through the most common means of communication Radio.

Taking education as an explanatory variable, the association between education and comprehensive knowledge on HIV prevention methods demonstrate that as the education level increases knowledge is also more likely to increase. Respondents reported to have had college/university levels of education, 12 (50%) had the highest level of knowledge followed by 21 (42%) of the respondents from the secondary cycle and 6 (27.3%) of the respondents below primary second cycle levels. (Appendix 2 Table: 2 present the analyses result).

Among the four HIV prevention method questions there was a statistical difference in the proportions. For an item that probed respondents about whether having one uninfected and healthy partner can prevent HIV, 20 (100%) of respondents with higher education, 44 (88%) of the respondents with high school education and 14 (63.6%) of those below primary second cycle knew that by having one uninfected and healthy partner one can prevent HIV (X^2=12.744, N=96, 2 df, p=. 002).

Considering the relationship with marital status, 30 (38.5%) of the never married and 9 (50%) of the ever married respondents knew the four prevention methods (abstinence, staying faithful to one uninfected and healthy partner, consistent use of condoms and reducing the risk of mother to child transmission through antiretroviral therapy). Whereas, 48 (61.5%) of the

never married respondents and 9 (50%) of the ever married respondents failed to know at least one of the above mentioned HIV prevention methods. The result suggests that among the studied population, those who were unmarried seem to have a lower comprehensive knowledge compared with the ever married sub-group. (Appendix 2 Table: 2 present the analyses result).

Looking at the relationship with age category, less than half of the proportions of all age groups, 3 (33.3%) respondents in the age category of 15-19, 18 (47.4%) respondents in the age category of 20-24, 8 (34.8%) respondents in the age category of 25-29, 4 (33.3%) respondents in the age category of 30-34 and 6 (42.9%) respondents in the age category of 35-48 knew all the four HIV prevention questions. No significant difference in comprehensive knowledge according to age was observed. However, adults in the age group of 20-24 and 35 and above seemed to have better comprehensive knowledge on prevention with marginal differences in proportions. (Appendix: 2 Table: 2 presents the analyses result).

Comprehensive Knowledge on HIV Transmission

Comprehensive knowledge on transmission is defined as knowing all HIV transmission methods without misconceptions. The survey included nine questions that explored the prevalence of common misconceptions about HIV transmission. Respondents were asked whether they thought it was possible that a person can get HIV from mosquito bites, by sharing a meal with someone who has HIV, by injection with a needle that has been used by someone else, by eating an uncooked egg produced by a chicken that swallowed a condom, by eating raw meat (raw *kitiffo*) prepared by a HIV infected person, and by touching the saliva or sweat of a person with HIV or AIDS. They were also asked whether it was possible that drinking hard liquor and eating hot pepper can prevent HIV transmission, if a

healthy looking person can have HIV, and if HIV infected pregnant women can transmit the virus to her unborn child. In the following paragraphs the prevalence of comprehensive HIV transmission knowledge among the surveyed population is presented.

The results in general demonstrate that there is a lack of comprehensive knowledge among people with sensory disabilities about the way in which HIV can and cannot be transmitted. While the majority 85 (88.5%) of the respondents lack comprehensive knowledge on HIV transmission, only 11 (11.5%) of the respondents have a comprehensive knowledge on HIV transmission. Unlike what was observed in the comprehensive knowledge on HIV prevention methods, a slightly higher proportion 7(14.6%) of the men knew all transmission questions as compared to 4 (8.3%) of females. The analysis result shows a large proportion of men at 41 (85.4%) and 44 (91.7%) of women had at least one wrong understanding about the modes of HIV transmission. Male respondents were 2 times more likely than female respondents to know all the transmission methods without misconceptions (OR=1.88, N=96, 95%CI, .512, 6. 892). Forty-two (87.5%) respondents with visual impairments and 43 (89.6%) of respondents with hearing impairments did not have comprehensive knowledge on the mode of HIV transmission. On the other hand, a very small proportion, 6 (12.5%) of the respondents with visual impairments and 5 (10.4%) of the respondents with hearing impairments knew all the transmission questions without misconceptions. Hearing impaired respondents were 1.2 times less likely than the visually impaired to know all of the transmission questions without misconceptions (OR=1.23, N=96, 95%CI, .348, 4.334). The following table presents the analyses results.

Table: 4.9. Proportions for Comprehensive Knowledge on HIV Transmission by Biological Sex and Type of Disability

			HIV Transmission		
			Miss at Least One	Know All	Total
Sex	Male	Count	41	7	48
		%	85.4%	14.6%	100.0%
	Female	Count	44	4	48
		%	91.7%	8.3%	100.0%
Type of Disability	Visual Impairment	Count	42	6	48
		%	87.5%	12.5%	100.0%
	Hearing Impairment	Count	43	5	48
		%	89.6%	10.4%	100.0%

Among the questions on HIV transmissions, 35 (72.9%) of men and 24 (50%) of the women rejected the question "can a person get HIV by eating raw meat (raw *Kitiffo*) prepared by HIV infected individual?" 13 (27.1%) men and 24 (50%) women failed to reject such a misconception. The difference in proportions was statistically significant (X^2=5.321, N=96, 1 df, p=. 021). Similarly, a statistically significant difference in proportions was observed in four transmission questions based on disability type. For all questions respondents with hearing impairments scored less proportions compared to respondents with visual impairments. While 46 (95.8%) of the visually impaired respondents knew that injection with a needle used by someone infected could transmit HIV, a lesser proportion of 39 (81.3%) respondents with hearing impairments knew this. The difference in observed proportions was statistically significant (X^2=5.031, N=96, 1 df, p=. 025).

A very large proportion of 46 (95.8%) visually impaired persons and 40 (83.3%) of the hearing impaired individuals also knew that drinking hard liquor and eating hot pepper could not prevent HIV transmission. Two (4.2%) of the visually impaired and 8 (16.7%) of the hearing impaired failed to know that drinking hard liquor and eating hot pepper could not

prevent HIV transmission. The difference in proportions was statistically significant (X^2=4.019, N=96, 1 df, p=. 045). A very large proportion of 47 (97.9%) respondents with visual impairments and a lesser proportion of 17 (35.4%) respondents with hearing impairments also knew that a healthy looking person can have the AIDS virus. The difference in proportions was statistically significant (X^2=42.188, N=96, 1 df, p=. 000). Similarly, a lesser proportion of 19 (36.6%) the hearing impaired knew that a pregnant woman could transmit the virus to an unborn child compared to 39 (81.3%) persons with hearing impairments. The observed difference in proportions was statistically significant (X^2=17.423, N=96, 1 df, p=. 000).

Considering the relationship with educational background, all 22 (100%) of respondents with a lower level of education, failed to have comprehensive knowledge on modes of HIV transmission compared to respondents with a higher level of education. Seven (14%) of the respondents with a high school educational level and 4 (16.7%) respondents with college/university levels of education had comprehensive knowledge with marginal difference in proportions. (Appendix: 2 table: 3 presents results of the analyses).

Among the questions that assessed misconceptions on the route of HIV transmission, a marginally higher proportion, 21 (87.5%) of the respondents with a higher education than 43 (86%) of high school educational level reject the question " can a person get HIV by mosquito bite?" On the other hand, a larger proportion of 9 (40.9%) respondents below the primary education and a small proportion of 7 (14%) and 3 (12.5%) of the respondents with a high school or slightly higher education failed to reject such misconception. The observed difference in proportions was statistically significant (X^2=8.041, N=96, 2 df, p=. 018).

Twenty-four (100%) of respondents with higher education, 28 (56%) of the respondents with high school education and 12 (14.5%) of the respondents whose educational level was below grade 8 knew that a healthy looking person could have the AIDS virus. Ten (45.5%) of the respondents with a lower level of education (below grade 8) and 22 (44%) of the respondents with a high school level education failed to know a healthy looking person could have HIV. The difference in proportions was statistically significant (X^2=16.015, N=96, 2 df, p=. 000).

Looking at the level of comprehensive knowledge on HIV transmission based on marital status, of the total respondents only 11(14.1%) of the never married category had comprehensive knowledge on HIV transmission. The remaining 67 (85.9%) never married respondents and 19 (100%) ever-married respondents failed to have comprehensive knowledge about HIV transmission without misconceptions (Appendix: 2 table: 3 presents results of the analyses).

Among the questions that address misconceptions on HIV transmission, 53 (67.9%) never married and 6 (33.3%) ever married respondents responded to the question "Can a person get HIV by eating raw meat (raw *Kitiffo*) prepared by an HIV infected individual?" by saying “no”. On the other hand, 25 (32.1%) of the never married and 12 (66.3%) of the ever-married respondents failed to know this. The difference in the observed proportions was significant (X^2=7.398, N=96, 1 df, p=. 007).

The difference in knowledge on HIV transmission by age group was not significant. Small proportions of 1 (11.1%) respondent in the age category of 15-19, 3 (7.9%) respondents in the age category of 20-24, 4 (17.4%) respondents in the age category of 25-29, 2 (16.7%) respondents in the age category of 30-34 and 1 (7.1%) respondents in the age category of 35-

48 had comprehensive knowledge about HIV transmission without the misconception. (Appendix: 2 table: 3 presents results of the analyses).

Among the questions that assessed comprehensive HIV transmission knowledge, 9 (100%) respondents in the age category 15-19, 23 (60.5%) respondents in the age category of 20-24, 11 (47.8%) respondents in the age category of 25-29, 9 (75%) respondents in the age category of 30-34 and 12 (85.7%) respondents in the age group of 35-48, knew that a healthy looking person can have HIV. The observed difference in proportions was statistically significant (X^2=11.479, N=96, 4 df, p=. 022).

Risk Perception

In order to adopt a desired behavior individuals need to perceive the severity of the problem (in this case HIV/AIDS) and consider it as an undesirable. They should also perceive themselves at risk of acquiring the AIDS virus. Thus, self-perception of getting HIV indicates how the individual is approaching the intended attitudinal development towards adopting health-seeking behavior (Catania, Kegeles & Coates, 1990).

In order to assess the perceived severity of HIV/AIDS, respondents were asked the question "Do you believe that HIV/AIDS is the most undesirable disease that has no cure?" Accordingly, 85 (88.5%) said "yes", 6 (6.3%) said "no" and 5 (5.2%) said, "do not know". A univariate analysis is shown in the next table.

Table: 4.10. Frequency Distribution for Believing AIDS as the most Undesirable Disease that has no Cure

	Believes AIDS is Undesirable and has no cure	
	Count	%
No	6	6.3%
Yes	85	88.5%
Don't know	5	5.2%
Total	96	100.0%

Disaggregated by socio-demographic characteristics of the respondents, 44 (91.7%) of males and 41 (85.4%) of women consider HIV/AIDS as the most undesirable disease that has no cure. A small proportion of 2 (4.2%) men and 4 (8.3%) women thought the opposite. The remaining 2 (4.2%) male respondents and 3 (6.3%) female respondents opted for the "do not know" option. The result is indicated in table 4.11.

Table: 4.11. Proportions for Believing AIDS as the Most Undesirable Disease that Has no Cure by Biological Sex

			Believes AIDS is the Most Undesirable Disease and has no cure			Total
			No	Yes	Don't know	
Sex	Male	Count	2	44	2	48
		%	4.2%	91.7%	4.2%	100.0%
	Female	Count	4	41	3	48
		%	8.3%	85.4%	6.3%	100.0%
Total		Count	6	85	5	96
		%	6.3%	88.5%	5.2%	100.0%

Looking at this by types of sensory disability, 43 (89.6%) of the respondents with visual impairments and 42 (87.5%) of the respondents with hearing impairments said that, AIDS is the most undesirable disease and has no cure. Three (6.3%) of the respondents with visual and hearing impairments thought the otherwise. Two (4.2%) of the respondents with visual impairments and 3 (6.3%) of the respondents with hearing impairments chose the "do not know" option. The result is indicated in table 4.12.

Table: 4.12. Proportions for Believing AIDS as the Most Undesirable Disease that has no Cure by Type of disability

			Believes AIDS is the Most Undesirable Disease and has no cure			Total
			No	Yes	Don't know	
Type of Disability	Visual Impairment	Count	3	43	2	48
		%	6.3%	89.6%	4.2%	100.0%
	Hearing Impairment	Count	3	42	3	48
		%	6.3%	87.5%	6.3%	100.0%
Total		Count	6	85	5	96
		%	6.3%	88.5%	5.2%	100.0%

In terms of education, 20 (90.9%) of the respondents below primary second cycle, 45 (90%) of the respondents with high school education, and 20 (83%) of the respondents with college/university education, regard AIDS as an undesirable disease that has no cure. On the other hand, a slightly higher proportion of respondents with higher education 3 (12.5%) compared to 2 (4%) respondents with secondary education, and 1 (4.5%) respondent below primary second cycle education thought the otherwise. (The analysis result is presented in appendix 2 table: 4.).

Looking at the relationship with marital status, almost equal proportions 69 (88.5%) of the never married respondents and 16 (88.9) of the ever-married respondents believed that AIDS is the most undesirable disease that has no cure. Six (7.7%) of never married respondents reject the question by saying "no". (The analysis result is presented in appendix 2 table: 5.).

In terms of age category, a very large proportion of respondents 9 (100%) in the age category of 15-19, 33 (86.8%) in the age category of 20-24, 21 (91.3%) in the age category of 25-29, 11 (91.7%) in the age category of 30-34 and 11 (78.6%) in the age category of 35-48 agree with the statement that AIDS is the most undesirable disease that has no cure. Three (7.9%) respondents in the age category of 20-24, 1 (4.3%) respondent in the age category of 25-29, 1 (8.3%) respondent in the age category of 30-34 and 1 (7.1%) respondent in the age category of 35-48 did not agree with the statement. (The analysis result is presented in appendix 2 table: 4).

Respondents were also asked whether they perceived themselves at risk of acquiring HIV (perceived susceptibility). On the whole, out of the total respondents 51 (53.1%) respondents perceived a no/low chance of getting HIV, and only 22 (22.9%) respondents

thought that they were at a moderate/high chance of acquiring the AIDS virus. The remaining 23 (23.%) respondents could not put themselves in the above two groups. Disaggregated by biological sex an almost similar proportion of 25 (52.1%) males and 26 (54.2%) females, perceived they were at a moderate/high chance of acquiring the AIDS virus. Equal proportions of both sexes 11 (22.9%) men and 11 (22.9 %) females also thought that they had a no/low chance of getting HIV. The result of the analysis is presented in the following table.

Table: 4.13. Respondents' Biological Sex By Risk Perception

			Risk perception			Total
			No /Low	High/Moderate	Don't Know	
Sex	Male	Count	25	11	12	48
		%	52.1%	22.9%	25.0%	100.0%
	Female	Count	26	11	11	48
		%	54.2%	22.9%	22.9%	100.0%
Total		Count	51	22	23	96
		%	53.1%	22.9%	24.0%	100.0%

From a total of 96 respondents surveyed 25 (52.1%) respondents with visual impairments and 26 (54.2%) respondents with hearing impairments saw themselves at a no/low chance of getting HIV. A higher proportion of 20 (41.7%) respondents with visual impairments compared to 2 (4.2%) respondents with hearing impairments perceived themselves at a moderate/high chance of acquiring the AIDS virus. The observed difference in proportions was statistically significant (x^2 =27.312, N=96, 2 df, p= .000). The analysis result is indicated in table 4.14.

Table: 4.14. Type of Disability and Risk perception

			Risk perception			Total
			No /Low	High/Moderate	Don't Know	
Type of Disability	Visual Impairment	Count	25	20	3	48
		%	52.1%	41.7%	6.3%	100.0%
	Hearing Impairment	Count	26	2	20	48
		%	54.2%	4.2%	41.7%	100.0%
Total		Count	51	22	23	96
		%	53.1%	22.9%	24.0%	100.0%

The association between education and risk perception revealed that 9 (40.9%) respondents below a primary school educational level, 29 (58%) respondents of secondary level of education, along with 13 (54.2%) respondents with a higher education perceived that they were at no/low risk of getting HIV. On the other hand, 10 (41.7%) respondents with a college/university level of education, followed by 4 (18.2%) respondents below a grade 8 level of education and 8 (16%) respondents with a high school education perceived themselves as having a moderate/high chance of acquiring the AIDS virus (x^2 =12.437, N=96, 4 df, p=. 014) (The analysis result is presented in appendix 2 table: 5.).

Considering the relationship with marital status, 10 (55.6%) of the ever married respondents and 41 (52.6%) of the never married respondents perceived that they were at no/low risk of getting HIV. On the other hand, 18 (23.1%) of the never married respondents and 4 (22.2%) of the ever married respondents perceived themselves as having a moderate/high chance of acquiring the AIDS virus (The analysis result is presented in appendix 2 table: 5.).

The association between personal risk perception and respondents' age category depicted that 7 (77.8%) respondents in the age category of 15-19, followed by 13 (56.5%) respondents in the age category of 25-29, 6 (50%) respondents in the age category of 30-34, 7 (50%) respondents in the age category of 35-48 and 18 (47.4%) respondents in the age category of 20-24 perceived that they were at no/low risk of getting HIV. On the other hand, 5 (35.7%) respondents in the age category of 35-48, followed by 11 (28.9%) respondents in the age category of 20-24, 3 (25%) respondents in the age category of 30-34, 1(11.1%) respondents in the age category of 15-19 and 2 (8.7%) respondents in the age category of 25-

29 perceived themselves as having a moderate/high chance of acquiring the AIDS virus (The analysis result is presented in appendix 2 table: 5.).

Sexual Practice

First Sexual Initiation

The study result, as depicted in table 4.15, divulged that the great majority of persons with sensory disabilities 75 (78.1%) were sexually active and 21 (21.9%) of the respondents reported never had sex. The proportion of 38 (79.2%) males who reported having sexual intercourse was not significantly different from female respondents 37 (77.1%). For both sexes the first sexual intercourse encounters were experienced between the ages of 14 and 29 with mean age being 20.07 and the median age 20.

Table: 4.15. Ever had Sex by Biological Sex

			Ever had Sex		Total
			No	Yes	
Sex	Male	Count	10	38	48
		%	20.8%	79.2%	100.0%
	Female	Count	11	37	48
		%	22.9%	77.1%	100.0%
Total		Count	21	75	96
		%	21.9%	78.1%	100.0%

For men with sensory disabilities, the first sexual debut was experienced between the ages of 15-29 (mean age 20.53 and median age 20) and females encountered similar experiences between 14-29 years of the age (mean age 19.29 and median age 19). Women with sensory disabilities had their first sexual debut one year earlier (median age at 19 years) than their male counterparts (median age at 20 years). Further, the result disclosed that 30 (40%) respondents had initiated sexual intercourse between the ages of 14-18. Disaggregated by sex a slightly higher proportion of females [16 (43.2%)] than males [14 (38.8%)] had initiated first sexual debut between the ages of 14-18.

The survey also probed the circumstance under which the first sexual intercourse occurred. For the majority of respondents 73 (97.3%) experienced first sexual intercourse encounters with desire. However, only 2 (2.7%) of female respondents reported having sex without their choice; being raped/forced. Table 4.16 shows the result of the analysis.

Table: 4.16 First Sex Circumstance by Biological Sex

			First Sex Circumstance		Total
			With Desire	Forced/raped	
sex	Male	Count	38	0	38
		%	100.0%	.0%	100.0%
	Female	Count	35	2	37
		%	94.6%	5.4%	100.0%
Total		Count	73	2	75
		%	97.3%	2.7%	100.0%

To assess the extent of condom use during the first sexual debut, respondents were also asked whether they had used condoms for the first time they had sex. As indicated in table 4.17, of those who ever had sex only 19 (25.3%) respondents used condom. Disaggregated by biological sex 9 (23.7%) males and 10 (27%) females reported using a condom during their first sexual intercourse encounters. Females were 1.19 times more likely than men to use a condom in their first sexual debut (OR=1.193, 95% CI, .296, 2.375). Looking at the relationship with type of sensory disabilities, the analysis result in table 4.17 also demonstrated that there is no big difference in proportions of using condoms during first sexual encounters between the two groups. Ten (25.6%) of respondents with visual impairments and 9 (25%) of respondents with hearing impairments used condoms during their first sexual encounters.

Table: 4.17 Condom Use at First Sex by Biological Sex and Type of Disability

			Condom use at First Sex		Total
			No	Yes	
Sex	Male	Count	29	9	38
		%	76.3%	23.7%	100.0%
	Female	Count	27	10	37
		%	73.0%	27.0%	100.0%
Total		Count	56	19	75
		%	74.7%	25.3%	100.0%
Type of Disability	Visual Impairment	Count	29	10	39
		%	74.4%	25.6%	100.0%
	Hearing Impairment	Count	27	9	36
		%	75.0%	25.0%	100.0%
Total		Count	56	19	75
		%	74.7%	25.3%	100.0%

Sexual Practice in the Past 12 Months

Of those who ever had sexual intercourse, 59 (78.7%) [30 (78.9%) men and 29 (78.4%) women] respondents had sexual intercourse in the past 12 months. Disaggregated by type of sensory disability, there was a marginal difference in proportions; 31 (79.5%) visually impaired and 28 (77.8%) hearing impaired reported having had sexual intercourse. The following table depicts the results of the analyses.

Table: 4.18. Proportion for Having Had Sex in the past 12 months by Biological Sex and Types of Disability

			Had sex in the past 12 months		
			N0	Yes	Total
Sex	Male	Count	8	30	38
		%	21.1%	78.9%	100.0%
	Female	Count	8	29	37
		%	21.6%	78.4%	100.0%
Type of Disability	Visual Impairment	Count	8	31	39
		%	20.5%	79.5%	100.0%
	Hearing Impairment	Count	8	28	36
		%	22.2%	77.8%	100.0%

Number and Type of Sexual Partners

Table 4.19 presents indicators about respondents' type and number of sexual partners, which represents higher risk sexual intercourse among respondents in the past 12 months before the survey. Of those respondents who reported having had sexual intercourse in the past 12 months 16 (94.1%) respondents had one regular sexual partner and 1 (5.9%) respondent had two regular sexual partners. On the other hand, 27 (62.8%) respondents [all never married] had sexual intercourse with one non regular partner and 16 (37.2%) respondents [15 (35.7%) never married] had sexual intercourse with more than one non-regular partners. The data has indicated that among the ever-married only one (5.9%) respondent with a hearing impairment reported having had extra marital relationship.

Table: 4.19. Frequency distribution for Number of Regular and Non-Regular Sex Partner(s) in the Past 12 Months

Number of Sexual Partner(s)	Regular partners		Non Regular Partners	
	Count	%	Count	%
One partner	16	94.1%	27	62.8%
More than One Partner	1	5.9%	16	37.2%
Total	17	100.0%	43*	100.0%

*Includes one ever-married respondent.

Disaggregated by biological sex higher proportions of ever married females 9 (100%) had sexual intercourse with a single regular partner as compared to 7 (87.5%) ever married male respondents. Following the same pattern, proportionately more females 15 (75%) respondents reported to have one non-regular partner compared to male respondents 12 (52.2%). Furthermore, 11 (47.8%) of male respondents had sexual relationships with more than one non-regular partner (ranging from 2-6) at a higher proportion than 5 (25%) of female respondents. Over all the analyses indicate that never married respondents and men were more likely to engage in high-risk sexual behavior with respect to having more than one

partner in the past 12 months before the survey. The analysis result is indicated in the following table.

Table: 4.20 Respondents' Biological Sex by Number of Regular and Non-Regular Sex Partner(s) in the Past 12 Months

Number of Sexual Partner(s)		Respondents' Biological Sex			
		Male		Female	
		Regular partners	Non Regular Partners	Regular partners	Non Regular Partners
One partner	Count	7	12	9	15
	%	87.5%	52.2%	100.0%	75.0%
More than	Count	1	11		5
One Partner	%	12.5%	47.8%		25.0%
Total	Count	8	23	9	20
	%	100.0%	100.0%	100.0%	100.0%

Results of analyses in table 4.21 show that 17 (77.3%) respondents with visual impairments and 10 (47.6%) respondents with hearing impairments reported having one non-regular sexual partner. Five (22.7%) respondents with visual impairment and 11 (52.4%) respondents with hearing impairments reported having two or more non-regular sexual partners. It seems that compared to the visually impaired, respondents with hearing impairments had two or more sexual partners in the past 12 months before the survey.

In general, this finding discloses that albeit both groups were involved in high-risk sexual activity with respect to having multiple sexual partners, respondents with hearing impairments were more likely than respondents with visual impairments to be involved in risky behavior.

Table:4.21. Total Number of Regular and Non- Regular Sex partners in the past 12 months by Type of Disability

Number of sexual Partner(s)		Type of Disability			
		Visual Impairment		Hearing Impairment	
		Regular partners	Non Regular Partners	Regular partners	Non Regular Partners
One partner	Count	9	17	7	10
	%	100.0%	77.3%	87.5%	47.6%
More than	Count		5	1	11
One Partner	%		22.7%	12.5%	52.4%
Total	Count	9	22	8	21
	%	100.0%	100.0%	100.0%	100.0%

Use of Condoms in the Past 12 Months

In our society where the prevalence of HIV/AIDS is mainly attributed to heterosexual practice, condom use is an important tool to curtail the spread of HIV/AIDS. Effective protection requires use of condoms consistently among those who are at high risk (engaged in sexual intercourse with non–regular partner) (CSA, 2005). Accordingly, respondents who were sexually active were asked what the frequency of their condom use was in the past 12 months before the survey. The analysis revealed that among the ever-married, condom use on a consistent basis was not common or frequent. While a high proportion of respondents 14 (82.4%) reported never having used a condom, 2 (11.8%) respondents said that they used a condom sometimes and 1 (5.9%) respondent who had an extramarital relationship reported consistent condom use in the past 12 months before the survey. Since the objective is to identify respondents who practice high-risk sexual behavior, the analysis in the next section will focus upon respondents who had a non-regular partner in the past 12 months before the survey.

As presented in table 4.22, of 43 respondents who reported having sexual intercourse with non regular partners, 12 (27.9%) respondents used condoms every time, 6 (14%)

respondents used a condom almost every time, 13 (30.2%) respondents sometimes used condoms and 12 (27.9%) respondents had never used condoms in any sexual encounter. In addition, a higher proportion of females 7 (35%) than 5 (21.7%) male respondents never used condoms. A slightly higher proportion of 8 (40%) female respondents used condoms sometimes more than male respondents 5 (21.7%). Higher proportion of 5 (21.7%) male respondents than 1 (5%) female respondent reported using condom almost every time. High proportion of 8 (34.8%) male respondents used condoms consistently, while having sex with non-regular partners in the past 12 months prior to the survey, compared to 4 (20%) female respondents. These findings suggest that males were more likely than female respondents to use condoms consistently with non-regular partners in the past 12 months before the survey.

Table: 4.22. Frequency of Condom Use With Non-Regular Partner(s) In The Past12 Months By Biological Sex

			Frequency of condom use				
			Never	Sometimes	Almost every time	Every time	Total
Sex	Male	Count	5	5	5	8	23
		%	21.7%	21.7%	21.7%	34.8%	100%
	Female	Count	7	8	1	4	20
		%	35.0%	40.0%	5.0%	20.0%	100%
Total		Count	12	13	6	12	43
		%	27.9%	30.2%	14.0%	27.9%	100%

Considering the relationship with types of sensory disabilities a higher proportion of respondents with hearing impairments 7 (33.3%) used condoms every time they were having sex with a non-regular partner, compared to 5 (22.7%) respondents with visual impairments. Three (13.6%) respondents with visual impairments and 3 (14.3%) respondents with hearing impairments reported using condoms almost every time. In addition, 6 (27.3%) respondents with visual impairments and 7 (33.3%) respondents with hearing impairments used condoms sometimes. A higher proportion of 8 (36.4%) respondents with visual impairments never used

condoms, they were having sex with a non-regular partner, compared to 4 (19%) of respondents with hearing impairments. Table 4.23 presents results of the analysis.

Table: 4.23. Frequency of Condom Use with Non-Regular Partner (s) in the Past12 Months by Type of Disability

			Frequency of condom use				Total
			Never	Some times	Almost every time	Every time	
Type of Disability	Visual Impairment	Count	8	6	3	5	22
		%	36.4%	27.3%	13.6%	22.7%	100.0%
	Hearing Impairment	Count	4	7	3	7	21
		%	19.0%	33.3%	14.3%	33.3%	100.0%
Total		Count	12	13	6	12	43
		%	27.9%	30.2%	14.0%	27.9%	100.0%

Knowledge about Condom

Condom use remains one of the major means of preventing HIV/AIDS. According to the FDRE (2006) report, more than sixty-seven million condoms have been distributed in Ethiopia during the year 2004/05. The questions pertaining to knowledge asked in this study were about male condoms because it is the most available and widely used condom in the nation (FDRE, 2006). Thus, to explore the knowledge of respondents in relation to condoms and its use, different questions were included in the survey.

Respondents were asked whether they knew what a condom was and if they knew someone or a place as source to obtain condoms; as well as how to use a condom correctly. All (100%) respondents reported that they knew what a condom was. However, only 56 (58.3%) of respondents actually reported knowing how to use it correctly. Frequency distributions are shown in the next table.

Table: 4.24. Frequency Distribution of Knowledge on What Condom is and How to Use condom Correctly

	Know what condom is		Know how to use condom correctly	
	Count	%	Count	%
NO			40	41.7%
Yes	96	100.0%	56	58.3%
Total	96	100.0%	96	100.0%

Disaggregated by biological sex a higher proportion of men 34 (70.8%) reported knowing how to use condoms correctly compared to female respondents 22 (45.8%). The difference in observed proportions was statistically significant (X^2=6.171, N=96, 1 df, p=. 013). Men were 3 times more likely than females to know correct use of condoms (OR=2.87, 95%CI, 1.236, 6.665) Table 4.25 depicts the analysis result.

Table: 4.25 Proportions for Knowledge about Correct Condom Use by Biological Sex

			Know how to use condom correctly		
			NO	Yes	Total
Sex	Male	Count	14	34	48
		%	29.2%	70.8%	100.0%
	Female	Count	26	22	48
		%	54.2%	45.8%	100.0%
Total		Count	40	56	96
		%	41.7%	58.3%	100.0%

As can be seen from table 4.26, among persons with visual impairments 25 (52.1%) respondents knew how to use condoms correctly, and 23 (47.9%) respondents reported otherwise. Furthermore, 31 (64.6%) of respondents with hearing impairments knew how to use condom correctly, and 17 (35.4%) respondents with hearing impairments reported lack of knowledge on how to use a condom correctly.

Table: 4.26. Proportions for Knowledge about Correct Condom Use by Type of Disability

			Know how to use condom correctly		Total
			NO	Yes	
Type of Disability	Visual Impairment	Count	23	25	48
		%	47.9%	52.1%	100.0%
	Hearing Impairment	Count	17	31	48
		%	35.4%	64.6%	100.0%
Total		Count	40	56	96
		%	41.7%	58.3%	100.0%

Respondents were asked if they knew any place or a person where they could get condoms. With the exception of 2 (2.1%) females, almost all respondents 94 (97.9%) knew where and from whom to obtain condoms. Table 4.27 shows the result of the analysis.

Table: 4.27 Proportions for Knowledge about Condom Sources

			Knows where and from whom to get condom		
			No	Yes	Total
Sex	Male	Count	0	48	48
		%	.0%	100.0%	100.0%
	Female	Count	2	46	48
		%	4.2%	95.8%	100.0%
		Count	2	94	96
Total		%	2.1%	97.9%	100.0%

Attitude towards Effectiveness of Condom

According to ARRM (Catania, Kegeles & Coates, 1990), most people choose to engage in behaviors that they believe will result in the greatest overall personal benefit. When considering sexual behavior, the perceived effectiveness of the behavior (use of condom) in reducing negative health consequences (HIV/AIDS), determines an individual's commitment towards health-seeking behavior. Hence, to determine the level of a respondents' perception towards the effectiveness of condoms they were asked whether they believe that consistent and correct use of condoms every time enables them to avoid the AIDS virus.

Accordingly, as indicated in table 4.28, less than half of the proportion of respondents 42 (43.8%) believed that consistent and correct use of condoms every time is completely effective to prevent HIV. Twenty-nine (30.2%) respondents considered consistent and correct use of condom every time is moderately effective in preventing HIV. A smaller proportion of 2 (2.1%) respondents believed that it is not at all effective. On the other hand, a substantial proportion of respondents [23 (24%)] found the question difficult to answer. The result of the analysis demonstrates that a very large proportion of respondents failed to believe in the effectiveness of condom use in preventing HIV transmission.

Table: 4.28. Frequency Distribution for Believe in Effectiveness of condom to prevent HIV

	Believes consistent and correct condom use every time can prevent HIV	
	Count	%
Not at all effective	2	2.1%
Moderately effective	29	30.2%
Completely effective	42	43.8%
Difficult to answer	23	24.0%
Total	96	100.0%

Considering the relationship with the biological sex of respondents, 24 (50%) male respondents and 18 (37.5%) female respondents, believed that consistent and correct condom use every time is completely effective to prevent HIV. While a substantial proportion of 22 (45.8%) female respondents believed that consistent and correct use of a condom is moderately effective to prevent HIV, 7 (14.6%) of male respondents had a similar belief. Putting both sexes on the same plate, 2 (4.2%) of male respondents and none of the female respondents believed that consistent and correct use of condoms is not at all effective to prevent HIV. Fifteen (31.3%) of the male respondents and 8 (16.7%) of the female respondents found the question difficult to answer. Results are displayed on the next table.

Table: 4.29 Proportions for Effectiveness of Condom by Biological Sex

			Believes consistent and correct condom use every time can prevent HIV				Total
			Not at all effective	Moderately effective	Completely effective	Difficult to answer	
Sex	Male	Count	2	7	24	15	48
		%	4.2%	14.6%	50.0%	31.3%	100.0%
	Female	Count	0	22	18	8	48
		%	.0%	45.8%	37.5%	16.7%	100.0%
Total		Count	2	29	42	23	96
		%	2.1%	30.2%	43.8%	24.0%	100.0%

In terms of type of sensory disabilities, 25 (52.1%) of respondents with visual impairments and 17 (35.4%) of respondents with hearing impairments believed that a consistent and correct use of a condom every time is completely effective to prevent HIV. Nonetheless, 1 (2.1%) of both respondents with visual and hearing impairments believed that consistent and correct use of condoms is not at all effective to prevent HIV. 18 (37.5%) of the respondents with visual impairment and 11 (22.9%) of persons with hearing impairments believed that consistent and correct use of condom every time is moderately effective. Whereas, 4 (8.3%) of the visually impaired respondents and 19 (39.6%) of the hearing impaired respondents found the question difficult to answer. The following table shows the analyses result.

Table: 4.30 Proportions for Effectiveness of Condom by Type of Disability

			Believes consistent and correct condom use every time can prevent HIV				Total
			Not at all effective	Moderately effective	Completely effective	Difficult to answer	
Type of Disability	Visual Impairment	Count	1	18	25	4	48
		%	2.1%	37.5%	52.1%	8.3%	100.0%
	Hearing Impairment	Count	1	11	17	19	48
		%	2.1%	22.9%	35.4%	39.6%	100.0%
Total		Count	2	29	42	23	96
		%	2.1%	30.2%	43.8%	24.0%	100.0%

Chapter Five

With appreciation of all limitations mentioned latter, in this section, an attempt has been made to present the summary of findings as well as discuss major findings and pinpoint recommendations for program interventions. In addition, limitations of the study, conclusion and the findings' implication for social work practice as well as recommended areas for further research are presented.

Summary of Major Findings

A cross-sectional study design was used to explore the knowledge, attitudes and practices of persons with sensory disabilities in Addis Ababa. Using a non-random sampling technique, a total of 96 survey participants were selected and participated anonymously in a survey style questionnaire, using a one-to-one interview format. The relationship between knowledge, attitudes, practices and selected background characteristics was examined. The following major findings were revealed.

Less than half of the population (46 %) (45.8% females vs. 35.4% men; 47.9% of the visually impaired vs. 33.3% of the hearing impaired; 50% of the ever married vs. 38.5% of the unmarried) of respondents knew all of the four prevention methods. Only 11.5% (14.6% men vs. 8.3% females, 12.5 % of the visually impaired vs. 10.4% of the hearing impaired and only 14.1% of the unmarried) of respondents had comprehensive knowledge on HIV transmission without misconceptions. Respondents' comprehensive knowledge on HIV transmission and prevention did not show similar results based on respondents' background characteristics, except by type of disability and level of education. Comprehensive knowledge on HIV prevention and transmission has increased with an increase in the level of education. No pattern of clear direction in proportions according to age was observed. Adults in the age

categories of 20 to 24 and 35 to 48 have better comprehensive knowledge on HIV prevention compared to other age groups. However, the same respondents also exhibited lower comprehensive knowledge on HIV transmission.

Despite a very high level of the belief in the severity of the AIDS disease 88.5%, respondents had a low perception of being at risk of HIV/AIDS. Perceived susceptibility was only 22.9% (22.9% of both sexes, 41.7% of the visually impaired vs. 4.2% of the hearing impaired). No clear pattern of direction in proportions with respect to age was observed. However, with an increase in education there was an increase in perceived susceptibility.

The majority of respondents (78.1%) had experienced sexual behavior. Forty percent had sexual initiation between 14 and18 years of age. Of those who had ever experienced sex 78.7% (78.9% of men, 78.4% of females, 79.5% of the visually impaired and 77.8% of the hearing impaired) were sexually active in the past 12 months. A high prevalence of pre-marital sex among the studied group was observed (75.4%). The survey also disclosed that never married, persons with hearing impairments and male respondents were more likely to have two or more non regular partners.

Consistent condom use was not common. Twenty five percent of the respondents used condoms during their first sexual debut and only 27.9% used condoms consistently with non-regular partners in the past 12 months before the survey. There was difference in condom use consistently pertaining to biological sex and what type of disability (20% women vs. 34.4% men and 33.3% hearing impaired vs. 22.7% visually impaired). No pattern of consistent condom use was revealed based on the category of age; however, respondents in the age group of 35 to 48 were the least users of condoms every time. Unlike what has been seen with

knowledge and perceived susceptibility, as education level increased the frequency of consistent condom use, with non-regular partners, has decreased.

Despite a heightened universal awareness about condom, only 58.3% (70.8% men vs. 45.8% females; 64.6% hearing impaired vs. 52.1% visually impaired and 60.3% unmarried vs. 50% ever married) of respondents knew how to use a condom correctly. With an increase in the level of education knowledge about correct use of condom has also increased. No pattern of knowledge pertaining to the correct use of condoms increased with age; however, those in the age category of 30 to 34 years old were more likely to know how to correctly use a condom. Those in the age category 15 to 19 years old were less likely to know how correctly use a condom. Furthermore, it should be noted that there was a low level of perceived benefit with regard to the effectiveness of condoms to prevent HIV infection. Only 43.8% (50% men vs. 37.8% females, 52.1% visually impaired vs. 35.4% hearing impaired and 55.6% ever married vs. 41% never married) believed that consistent and correct use of condoms is completely effective to prevent HIV. Unlike age, the level of perception towards complete effectiveness of condom use to prevent HIV has increased with an increase in the level of education.

All in all, the presence of misconceptions about HIV transmission and lack of comprehensive knowledge on prevention methods together with low level of consistent condom use, perceived susceptibility to HIV/AIDS as well as perceived benefit towards the effectiveness of condom to prevent HIV necessitates intervention programs.

Discussion

Measures of comprehensive knowledge give a better picture of the level of understanding about HIV/AIDS among the studied group (BSS, 2002; Family Health International, 2000). Unfortunately, the overall result of the survey demonstrates a lack of comprehensive preventive knowledge among survey participants. Only less than half (46 %) of the respondents knew all the four prevention methods. Forty-five percent (45.8%) of the females had a higher comprehensive knowledge on prevention than 35.4% of the men. Respondents with visual impairments (47.9%) also demonstrated better knowledge about prevention of HIV as compared to respondents with hearing impairments (33.3%). Comprehensive knowledge on HIV/AIDS prevention has increased with an increase in the level of education. This is consistent with the finding of EDHS 2005, which depicts respondents with a higher level of schooling, as being more likely than those with lower level schooling to be aware of various preventive methods. Compared to the ever-married category (50%) the never married category (38.5%), had a lower comprehensive knowledge base pertaining to prevention. This is not a good indicator because the never married are the individuals who engage in risky sexual practice at 72.1%. No pattern or clear direction according to the category of age was observed pertaining to knowledge on HIV prevention. However, adults in the age categories of 20 to 24 and 35 to 48 have a better comprehensive knowledge of HIV prevention as compared to other age groups.

This finding is inconsistent with other research findings that discover younger respondents had better knowledge on HIV/AIDS compared to older respondents (Tefera Belachew, Challi Jira, & Yoseph Mamo, 2004), and older respondents had better knowledge

on HIV/AIDS compared to the youth below 30 years of age (Beyene Petros, Solomon Belayneh &Yared Mekonnen, 1997).

A reduction in the misconceptions that act as an incentive to behavior change may actually be a better reflection of the success of HIV prevention campaign than an incremental shift in the level of correct knowledge (Family Health International, 2000). In light of this, the survey revealed a lack of comprehensive knowledge about the way in which HIV can and cannot be transmitted. Only 11.5% (14.6% men vs. 8.3% females, 12.5 % visually impaired vs. 10.4% hearing impaired and only 14.1% of never married) of the respondents correctly identified all HIV transmission questions without misconceptions. Education level and comprehensive HIV transmission knowledge seemed to be positively associated. All respondents with a lower level of education (below primary second cycle) did not have comprehensive knowledge of HIV transmission compared to those with high school (14%) and college/university levels (16.7%) of educational attainment. Hence, in order to reduce or avoid hindrances in the behavior change process intervention programs should focus up on dealing with misconceptions.

According to ARRM (Catania, Kegeles & Coates, 1990) internal and external cues or motivators such as knowing someone with HIV or someone who has died of AIDS and comprehending public HIV messages are among the factors that influence individual behavior in the change process. All (100%) survey respondents had heard about HIV/AIDS, and eighty (83.3%) of them (87.5% men and 79.2% females) knew someone with HIV or who died of AIDS. Knowing about someone with HIV or who died of AIDS conforms the magnitude of the HIV/AIDS problem. Furthermore, this very high level of awareness about HIV/AIDS could be taken as a facilitator in the behavior change process as it has an impact on all stages

(problem perception, commitment and action). On the other hand, the lack of comprehensive knowledge on HIV transmission and prevention can also be viewed as a barrier.

The possible explanation for the over all low level of comprehensive knowledge about HIV prevention and transmission could be that the current efforts being done by governmental and non-governmental organizations to deliver HIV/AIDS messages to this population of society, are not effective. Another possible explanation to consider based on research conducted in other countries (Mulindwa, 2003; Munthali, Mvula & Ali, 2004; Patrick & Matonhodze, 2004;Yousafzi & Edwards, 2004; World Bank & Yale university, 2004) is that individuals with sensory disabilities in our community may be the most disadvantaged group to access HIV/AIDS messages. Although this study could not proof or disproof these two assumptions, the overall result of the study seems to demand evaluation of current HIV/AIDS messages delivering schemes to persons with sensory disabilities. All in all, the low level of comprehensive knowledge concerning HIV transmission and prevention among the studied population is an alarm to organizations that work in the area of HIV/AIDS prevention, to give more attention to increase the knowledge among persons with disabilities.

According to ARRM (Catania ,Kegeles & Coates ,1990) believing that having AIDS is undesirable, knowledge about HIV transmission as well as perceiving oneself at risk of getting HIV are the three factors that influence the first stage of behavior change (problem perception). In this study results revealed that a very large proportion of 88.5% respondents (91.7% of men, 85.4% of women, 89.6% of the visually impaired and 87.5% of the hearing impaired) believed in the severity of HIV/AIDS. However, their perception of being at risk of HIV/AIDS (perceived susceptibility) was less. Only a small proportion of 22.9% (22.9% of both sexes, 41.7% visually impaired vs. 4.2% hearing impaired) the respondents thought that

they were at a moderate/high risk of acquiring HIV/AIDS. This result tells us about the importance of giving emphasis to influence the attitudes of the sensory disabled individuals towards acquiring HIV/AIDS.

With regard to sexual practice, the study disclosed that the majority of respondents 78.1% (79.2% men and 77.1% women) had sexual experiences. This finding not only negates the widely held wrong assumption that considers persons with disabilities as sexually inactive (World Bank & Yale University, 2004) but it also demonstrates their vulnerability to HIV infection. Women with sensory disabilities had first sexual debuts one year earlier (median age 19 years) than their male counterparts (median age 20 years). Compared to the general adult population, women with sensory disabilities experienced their first sexual intercourse almost three years later than the median age of women in the general population (16 years) and men with sensory disabilities one year earlier than the men, (21 years) (CSA, 2005). However, substantial proportion of respondents at 40% had sexual initiation between 14 to 18 years of age.

Hence, the finding seems to suggest the importance of giving due attention to those who are younger about HIV/AIDS interventions, as described by Zelalem Fekadu (2001) and PRB, (2001). It is evident that most of the time early initiations of sexual activities are unsafe and is related to having many sexual partners before marriage. This can be supported by the fact that a very low proportion of 25.3% respondents used condoms during their first sexual debuts, albeit majority of them 97.3% had their first sexual intercourse experience reportedly by choice.

Among respondents who had sexual intercourse in the past 12 months, 72.9% had sex with non-regular partners, which is higher compared to 44% prevalence of sexual intercourse

with non-regular partners among adult population in Addis Ababa (CSA, 2005). The findings revealed the existence of a high prevalence of pre-marital sex among the studied group. This survey also disclosed that those who were never married, respondents with hearing impairments and male respondents were most likely to have two or more non-regular partners. This result goes along with the 2005 EDHS finding that disclosed the prevalence of high-risk sexual intercourse (sex with non regular partners) among the never married adult population (CSA, 2005). It has also supported the global report on HIV/AIDS and Disability that clearly points out the possible vulnerability of individuals with disabilities to HIV/AIDS risk factors, as equal as or higher than their non-disabled counterparts (World Bank & Yale University, 2004).

Where heterosexual practice is said to contribute for more than 87% of annual HIV infections in Ethiopia (MOH, 2004), practicing safe sex by using a condom consistently with a non-regular partner is imperative. As demonstrated by the study, the prevalence of consistent condom use with non-regular partners was only 27.9% (20% women vs. 34.4% men and 33.3% hearing impaired vs. 22.7% visually impaired). According to the operational definition used in this study, a substantial proportion of respondents were practicing high-risk sex behavior. However, men and individuals with hearing impairments were less likely of practicing unsafe sex, and would be most likely to use a condom consistently. Here, the observed difference between men and women may relate to the existing gender and sexual relationship, as a female's ability to practice safe sex might be influenced by her ability to communicate and negotiate with her partner (Family Heath International, 1999; Zenabu Abera, 1999; HAPCO, 2002). This is an area for further research, especially since the woman

is not the gatekeeper of this behavior (fitting the condom physically to the body and keeping it on during intercourse).

Education is mentioned as a vital tool for individuals with disabilities to understand HIV messages and translating them into individual behavior change (Groce, 2003). However, the present study did not find this to be consistent with the results. Thirty three percent (33.3%) of respondents below primary cycle used condom consistently compared to 27.3% respondents with a high school education and 22.2% of respondents with a college/university education. The finding was also inconsistent with the 2005 EDHS report, which has revealed that the highest condom use was among non-regular partners with secondary and higher education (CSA, 2005).

On the other hand, the study result goes along with other research findings (BSS, 2002; Mulindwa, 2003; Munthali, Mvula & Ali, 2004; CSA, 2005), which demonstrate lack of linear relationship between knowledge about HIV/AIDS prevention and transmission and sexual practice. Such discrepancy is also observed among individuals with a higher level of education (Tefera Belachew, Challi Jira, & Yoseph Mamo, 2004; Beyene Petros, Solomon Belayneh &Yared Mekonnen, 1997). As indicated in the limitation part of this paper, the study did not address "why" a certain behavior is observed among the studied population. However, according to the model used in this study, such discrepancy could be observed owning to the fact that we compare individual level of knowledge about HIV/AIDS transmission and prevention (which is important to influence the first stage--problem perception) with sexual practice (the third stage--enactment). In other words, the model claims that together with having adequate knowledge, determination to use a condom consistently (commitment to adopt a recommended healthy behavior) is central to practice safe sex. Thus so as to solve the

paradox pertaining to the discrepancy between knowledge and practice all possible factors that may have influence on individual behavior needs to be investigated.

All in all, given the fact that more than 87% of annual HIV infection in Ethiopia is due to unprotected sex (MOH, 2004), it is possible to infer from this finding that a majority of the respondents who had had sexual intercourse with non-regular partners were practicing high-risk sex. According to literature, as presented in the literature review part, (Catania ,Kegeles & Coates ,1990;BSS, 2002; HAPCO, 2002; Mulindwa, 2003; Munthali, Mvula & Ali, 2004; Patrick & Matonhodze, 2004) there are different social and individual reasons (barriers) that may contribute to low level of condom use. Identifying and dealing with these barriers will result in decreasing high-risk sex by increasing the frequency of condom use.

In addition to serving as an indicator for HIV/AIDS related knowledge (BSS, 2002), knowing what a condom is, from where to get it and how to use it correctly can be taken as factors that increase self-efficacy towards use of a condom by an individual (Catania ,Kegeles & Coates ,1990). In this regard, the study result demonstrated that despite a universal awareness of condoms a little more than half of the respondents 58.3% (70.8% men vs. 45.8% females, 64.6% of the hearing impaired vs. 52.1% of the visually impaired and 60.3% of the never married vs.50% of the ever married) knew how to use it correctly. The observed difference between visually impaired and hearing impaired may attribute to the ability to observe condom use demonstrations by the latter group.

The associated positive belief of benefits of condom can influence individuals to use a condom in every sexual encounter (Catania ,Kegeles & Coates ,1990). In light of this, failure to believe in the effectiveness of condom use in preventing HIV transmission by a significant proportion 56.2% of the respondents indicates the low level of perceived benefit associated

with condom use to prevent HIV among the studied population. Since the attitudinal belief system is a factor, which will influence the individual use of condoms, the result of the study have an indicative point that suggests future direction of practice as well as further research (why there is a low level of belief in the effectiveness of condom among the studies population). The level of perception towards the effectiveness of a condom to prevent HIV has also increased with an increase in education level. The possible explanation to this co-relation could be that the interface between education and experience might have a positive impact in instigating such perception.

Hence, looking at the survey results it is possible to say that regardless of age, educational level, biological sex, type of disability or marital status, survey respondents are in the first stage of the change process (problem perception). Reportedly, their knowledge about HIV transmission was very low and secondly, a very large proportion of them failed to perceive themselves at risk of getting HIV/AIDS although a large proportion of respondents consider AIDS as the most undesirable disease that has no cure. Accordingly in order to curb the spread of HIV/AIDS among persons with sensory disabilities interventions that focus upon messages on how HIV can be transmitted and prevented are needed. In addition, influencing the attitude of respondents towards acquiring HIV/AIDS and the effectiveness of a condom to prevent HIV is crucial.

Limitations of the Study

Discussing sexual issues and sexual behavior in our society is not common. As pointed out by Beyene Petros, Solomon Belayneh and Yared Mekonnen (1997) and Family Heath International (2000) the social desirability response bias influences information withdrawal behavior. The presence of such a problem was not only assumed prior to the survey but also

practically seen during the data collection period and during informal discussions (some respondents honestly expressed their feeling saying that telling the truth about their sexual behavior was not easy). Hence, this study could suffer from the limitation that questions on sexual practices might not have been honestly responded to by all respondents. On top of this, the interaction between interviewees and interviewers could influence the response given by the respondent. The reason for this could be that respondents might know what was looked for and provide answers that were not what they believe or practice.

Another limitation of the study is the sample used in the study. Owning to the characteristic of the population, respondents were purposively drawn from ENAB and ENAD. As a result, the sampling technique used in this study did not ensure a representative sample of persons with sensory disabilities. Therefore, generalization of results beyond those who participated in the study is impossible. In order to make a generalization to similar studies with a representative larger sample size needs to be done.

Furthermore, the study treated the visually impaired and hearing-impaired adults similarly as both groups are families of persons with sensory disabilities. However, each group could have differences and specific issues to be addressed. As a result, each group needs to be studied separately disaggregated by biological sex.

Unavailability of related literature among similar populations is another limitation that has made the substantiation and comparison of the finding with similar groups of population difficult. Finally, qualitative data are critically as important to grasp why a particular behavior exists among the studied population and to understand the context in which persons with sensory disabilities live. Hence, it is imperative to note that this study suffers from such limitation.

Area for Further Research

Non-western societies tend to view the self as a product of the family and the community (HAPCO, 2002). Consequently, any attempt to influence individual behavior will be effective only if the underlining social factors that shape individuals' behaviors become subject to change. In addition, personal risk perception is influenced by knowledge about HIV is spread, by the individual's perceived control capacity to take preventive measures against HIV, and the perceptions held by other members of personal network (Social network). This study solely focuses upon individuals' decisions and perceptions disregarding other social factors. Therefore, to design the most effective HIV/AIDS intervention strategy social contexts that have influence to shape the attitudes as well as the behavior of persons with sensory disabilities needs to be researched and identified.

Implications for Social Work Practice and Conclusion

The results of the study reveal that social work practice programs must include prevention of HIV/AIDS by using appropriate means of communication to the sensory disabled populations. Being an infant profession in Ethiopia social work faces many challenges. However, by looking for new ways to implement successful interventions that have never been tried in this country, it will accomplish one of the principles for which it stands “empowering the poor, marginalized and disfranchised people of the society."

In this study the composite indicators on HIV prevention and transmission have disclosed the presence of a low level of knowledge among the studied population. Therefore, the delivery of HIV messages pertaining to HIV transmission and prevention, by using appropriate modes of communication channels by organizations such as ENAD and ENAB is indispensable. The study also revealed statistically significant differences in proportions of

some knowledge related questions. Accordingly, HIV/AIDS intervention programs should focus upon messages pertaining to vertical (mother to child) HIV transmission, the possibility of reducing mother-to child transmission through antiretroviral therapy, and having one uninfected and healthy partner. Also, to enable the prevention of HIV infection, the message pertaining to observing a healthy looking person does not conclude that they are not a carrier of the virus and using the needle, which has been used by an infected person, can transmit the AIDS virus. Furthermore, reduction of misconceptions such as eating raw meat (raw *kitfo*) prepared by a HIV infected person and the impossibility of avoiding HIV transmission by drinking a hard liquor or eating a hot pepper needs to be major components in delivering HIV related messages to sensory disabled individuals.

The low level of risk perception, which is one of the prerequisites for behavior change demands social work interventions to increase the level of being at risk, especially among persons with hearing impairments. In order to accomplish this task programs need to design strategies to influence the attitudes of individuals with sensory disabilities towards acquiring the AIDS virus.

The majority of respondents were sexually active and a quarter of them reported having multiple partners. Premarital sex was prevalent. It is obvious that abstinence (delaying first sexual encounters and second maintaining virginity) is the best and the only way to eliminate the risk of HIV. Thus, provision of education for the unmarried, especially, for the youth to abstain from sex before marriage needs to be one of the components of intervention programs. This activity can be supported by inclusion of societal norms that encourage delaying sex before marriage, in the education component. Such interventions will encourage individuals, especially those who had never experience sex, to maintain their safe behavior. In addition,

intervention programs should promote changes in behavior related to fidelity in marriage, monogamous relationship and reducing the number of sexual partners among sexually active individuals with sensory disabilities.

To achieve the protective effect of condoms, people with disabilities must use them correctly and consistently at every sexual encounter with non-regular partners. However, the study result discerned a failure to use a condom and inconsistent use of condoms with non-regular partners. Hence, interventions should exert efforts to deliver full and accurate information about the dangers associated with unprotected sexual intercourse and the benefit of consistent condom use to prevent HIV. Lack of the ability to use condoms correctly and a low level of perception towards the effectiveness of condoms to prevent the AIDS virus among the studied population demand the promotion of condoms along with provision of education about the benefits of practicing safe sex by using condoms consistently. In addition, educating the sensory disabled on how to use a condom (on the mechanics of using a condom) is imperative. This is particularly important for individuals with visual impairments and women.

While identifying sources of how to obtain condoms, informal sources such as family, friends and sexual partners were the least mentioned. This may imply their limited role in the prevention of HIV/AIDS, and lack of discussion among family members, friends and even between sexual partners. In addition, the sample of the study was drawn from two major associations that have a history of more than three decades, working with hearing and visually impaired indivduals; however, respondents were less likely to mention non-governmental organizations/associations as sources of condoms. Thus, intervention programs need to design

strategies to promote informal discussions among family members, friends and sexual partners that are interacting with persons who have sensory disabilities.

In conclusion, the findings have revealed the presence of misconceptions about HIV transmission, as well as a lack of comprehensive knowledge on HIV prevention methods among the studied group. A low level of consistent condom use, a low level of perceived susceptibility to HIV/AIDS, and a low level of perceived benefit towards the effectiveness of condoms to prevent HIV among persons with sensory disabilities was discerned. These behaviors indicate more actions are needed to save the lives of the visually and hearing impaired from this deadly disease (HIV/AIDS).

Therefore, organizations such as ENAB and ENAD by incorporating the above mentioned recommendations to deliver services, the knowledge and attitude of people with disabilities will be enhanced, and the culture of safe sexual behavior will be more fully implemented and less exposure to the pandemic of HIV/AIDS. Continued research to explore health and sexual activity among this population will enable the profession of social work to be proactive toward solutions to improve the quality of life for those individuals who are sexually active and have a sensory disability.

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Appendixes

Appendix 1

ADDIS ABABA UNIVERSITY
GRADUATE SCHOOL OF SOCIAL WORK

HIV/AIDS Knowledge, Attitude and Practice Questionnaire for Persons with Sensory Disabilities, Adult Target Group Aged 15-49

Introduction: This questionnaire is prepared to collect information on HIV/AIDS knowledge, attitude and practice among persons with sensory disabilities for research purpose. Some questions of the questionnaire ask very personal questions that some people find difficult to answer. However, your honest and genuine answers to these questions will have a great value to the research outcome. Your answers are completely confidential. Your name will not be written and will never be used in connection with any of the information you provide. I would greatly appreciate your help in responding to this questionnaire.

1: Socio-Demographic Characteristics

No.	Questions	Coding categories		Skip to
Q 101	Sex	Male Female	1 2	
Q 102	Form of Disability	Visual Impairment Hearing Impairment	1 2	
Q 103	How old are you?	Age in completed years DON'T KNOW NO RESPONSE	[__|__] 88 99	
Q104	What religion are you? **READ OUT** ***CIRCLE ONE***	Christian Muslim No Religion Others Specify_____ Don't Know No Response	1 2 3 4 88 99	
Q105	Have you ever attended school?	YES NO (Illiterate) NO RESPONSE	1 2 99	→ **Q107**
Q106	What is the highest level of education you completed? ***CIRCLE ONE***	Read and write Primary 1st Cycle (Grade 1-4) Primary 2nd Cycle (Grade 5-8) Secondary 1st Cycle (Grade 9-10) Secondary 2nd Cycle (Grade 11-12) College/University NO RESPONSE	1 2 3 4 5 6 99	
Q107	What is your occupation?	Salaried employed Unemployed Self-employed Student Other specify _____ NO RESPONSE	1 2 3 4 6 99	

Q108	What is your marital status?	Never married 1 Married 2 Divorced/separated/widowed 3 NO RESPONSE 99	

Section 2: HIV/AIDS Knowledge and Attitudes

No.	Questions	Coding categories	Skip to
Q 201	Have you ever heard of HIV or the disease called AIDS?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q301
Q 202	Do you know any one who is infected with HIV or who has died of AIDS?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 203	Can people protect themselves from the HIV virus by using a condom correctly every time they have sex?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 204	Can a person get the HIV virus from mosquito bites?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 205	Can a person get the HIV virus by sharing a meal with someone who is infected?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 206	Can a person get the HIV virus by getting injections with a needle that was already used by someone infected?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 207	Can a person get HIV from eating uncooked egg from a chicken that has swallowed a condom?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 208	Can a person get HIV from eating raw meat *(raw Kitiffo)* prepared by a person infected by HIV?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 209	Do you think drinking hard liquor and eating hot pepper prevents HIV transmission?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 210	Can a person get HIV if he or she touches the saliva or sweat of a person with HIV or AIDS	YES 1 NO 2 DON'T KNOW 88	

		NO RESPONSE 99	
Q 211	Can people protect themselves from the HIV virus by having one uninfected faithful sex partner?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 212	Can people protect themselves from the HIV virus by abstaining from sexual intercourse?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 213	Do you think that a healthy-looking person can be infected with HIV, the virus that causes AIDS?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 214	Can a pregnant woman infected with HIV transmit the virus to her unborn child?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 215	Can a pregnant woman infected with HIV decrease the chance of transmitting the virus to the unborn child by taking antiretroviral drug?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q 216	Do you believe that AIDS is the most undesirable disease that has no cure?	YES 1 NO 2 NO RESPONSE 99	
Q217	What are your chances of getting infected with HIV?	No chance 1 Low 2 Moderate 3 High 4 DON'T KNOW 88 NO RESPONSE 99	

Section 3 Sexual Practice:

No.	Questions	Coding categories	Skip to
Q301	Have you ***ever*** had sexual intercourse with opposite sex?	YES 1 NO 2 NO RESPONSE 99	**→Q401**
Q302	At what age did you first have sexual intercourse?	AGE IN YEARS [__|__] DON'T KNOW 88 NO RESPONSE 99	
Q303	What were the reasons for being involved in sexual intercourse?	Desired to have sex 1 Raped/forced 2 Other Specify_____ 3 DON'T KNOW 88 NO RESPONSE 99	

Q304	Did you use condom during your first sexual encounter?	YES 1 NO 2 DON"T KNOW 3 NO RESPONSE 99	
Q305	Have you had sexual intercourse in the last 12 months?	YES 1 NO 2 NO RESPONSE 99	→**Q401**
Q306	In the last 12 months how many spouse(s) or live-in sexual partners you have had?	**If there is no regular sexual partner(s) write '00' and go to question 308** **REGULAR** [__|__] DON'T KNOW 88 NO RESPONSE 99	
Q307	With what *frequency* did you and your regular partner (s) use condom during the past 12 months?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	
Q308	In the last 12 months how many sexual partner(s) that you are not married to and do not live with you have had? [Including partners whom you paid to have sex with]	**If there is no non-regular sexual partners write '00' and go to question 401** **NON-REGULAR** [__|__] DON'T KNOW 88 NO RESPONSE 99	
Q309	With what *frequency* did you and your non- regular partner(s) use a condom during the past 12 months?	EVERY TIME 1 ALMOST EVERY TIME 2 SOMETIMES 3 NEVER 4 DON'T KNOW 88 NO RESPONSE 99	

Section 4: Condoms

No.	Questions	Coding categories	Skip to
Q401	Do you know what a condom is?	YES 1 NO 2 NO RESPONSE 99	
Q402	Do you know of any place or person from which you can obtain condoms?	YES 1 NO 2 NO RESPONSE 99	→**Q404**

Q403	Which places or persons do you know where you can obtain male condoms? **PROBE** **CIRCLE 1 IF MENTIONED,**	Y N 1. Shop 1 2 2. Pharmacy 1 2 3.NGO/CSOs 1 2 4. Sexual partner 1 2 5.Health Center/Hospital 1 2 6.Family planning center 1 2 7. Anti-AIDS clubs 1 2 8. Bar/hotel 1 2 9. School 1 2 10. Friend 1 2 11. Family 1 2 12. Street vendors 1 2 13. Peer educators 1 2 14.Other specify _____ 1 2 99. NO RESPONSE 1 2	
Q.404	Do you know how to use a male condom appropriately?	YES 1 NO 2 NO RESPONSE 99	
Q.405	Some people use condoms to prevent HIV. How effective do you think condoms are in preventing HIV when they are used correctly every time someone has sex?	Not at all effective 1 Moderately effective 2 Completely/very effective 3 Difficult to respond 88 No response 99	

Thank you very much for taking time to answer these questions.

Appendix 2

Table: 1. Awareness about HIV/AIDS by Education Level, Marital Status and Age Group

			Heard about HIV/AIDS			Know someone with HIV or died of AIDS		
			No	Yes	Total	No	Yes	Total
Education Level	Below Primary Cycle	Count	0	22	22	8	14	22
		%	.0%	100.0%	100.0%	36.4%	63.6%	100.0%
	High School	Count	0	50	50	6	44	50
		%	.0%	100.0%	100.0%	12.0%	88.0%	100.0%
	College/University	Count	0	24	24	2	22	24
		%	.0%	100.0%	100.0%	8.3%	91.7%	100.0%
Total		Count	.0	96	96	16	80	96
		%	.0%	100.0%	100.0%	16.7%	83.3%	100.0%
Marital Status	Never Married	Count	0	78	78	15	63	78
		%	.0%	100.0%	100.0%	19.2%	80.8%	100.0%
	Ever Married	Count	0	18	18	1	17	18
		%	.0%	100.0%	100.0%	5.6%	94.4%	100.0%
Total		Count	.0	96	96	16	80	96
		%	.0%	100.0%	100.0%	16.7%	83.3	100.0%
Age Group	15-19	Count	0	9	9	2	7	9
		%	.0%	100.0%	100.0%	22.2%	77.8%	100.0%
	20-24	Count	0	38	38	6	32	38
		%	.0%	100.0%	100.0%	15.8%	84.2%	100.0%
	25-29	Count	0	23	23	3	20	23
		%	.0%	100.0%	100.0%	13.0%	87.0%	100.0%
	30-34	Count	0	12	12	4	8	12
		%	.0%	100.0%	100.0%	33.3%	66.7%	100.0%
	35 -48	Count	0	14	14	1	13	14
		%	.0%	100.0%	100.0%	7.1%	92.9%	100.0%
Total		Count	0	96	96	16	80	96
		%	.0%	100.0%	100.0%	16.7%	83.3%	100.0%

Table: 2. Proportion for Comprehensive Knowledge on HIV Prevention Methods by Level of Education, Marital Status and Age Group

			Prevention Methods		Total
			Miss at Least One	Know All	
Highest Education Level Completed	Below Primary Second Cycle	Count	16	6	22
		%	72.7%	27.3%	100.0%
	High School	Count	29	21	50
		%	58.0%	42.0%	100.0%
	College/University	Count	12	12	24

		%	50.0%	50.0%	100.0%
Total		Count	57	39	96
		%	59.4%	40.6%	100.0%
Marital Status	Never Married	Count	48	30	78
		%	61.5%	38.5%	100.0%
	Ever Married	Count	9	9	18
		%	50.0%	50.0%	100.0%
Total		Count	57	39	96
		%	59.4%	40.6%	100.0%
Age Group	15-19	Count	6	3	9
		%	66.7%	33.3%	100.0%
	20-24	Count	20	18	38
		%	52.6%	47.4%	100.0%
	25-29	Count	15	8	23
		%	65.2%	34.8%	100.0%
	30-34	Count	8	4	12
		%	66.7%	33.3%	100.0%
	35-48	Count	8	6	14
		%	57.1%	42.9%	100.0%
Total		Count	57	39	96
		%	59.4%	40.6%	100.0%

Table: 3. Proportions for Comprehensive Knowledge on HIV Transmission by Level of Education, Marital Status and Age Group

			HIV Transmission		Total
			Miss at Least One	Know All	
Education Level	Below Primary	Count	22	0	22
	Second Cycle	%	100.0%	.0%	100.0%
	High School	Count	43	7	50
		%	86.0%	14.0%	100.0%
	College/University	Count	20	4	24
		%	83.3%	16.7%	100.0%
Total		Count	85	11	96
		%	88.5%	11.5%	100.0%
Marital Status	Never Married	Count	67	11	78
		%	85.9%	14.1%	100.0%
	Ever Married	Count	18	0	18
		%	100.0%	.0%	100.0%
Total		Count	85	11	96
		%	88.5%	11.5%	100.0%
Age Group	15-19	Count	8	1	9
		%	88.9%	11.1%	100.0%
	20-24	Count	35	3	38

		%	92.1%	7.9%	100.0%
	25-29	Count	19	4	23
		%	82.6%	17.4%	100.0%
	30-34	Count	10	2	12
		%	83.3%	16.7%	100.0%
	35 -48	Count	13	1	14
		%	92.9%	7.1%	100.0%
Total		Count	85	11	96
		%	88.5%	11.5%	100.0%

Table: 4. Proportions for Believing AIDS as the Most Undesirable Disease that Has no Cure by Education Level, Marital Status and Age Group

			Believes AIDS is the Most Undesirable Disease and has no cure			Total
			No	Yes	Don't know	
Education Level	Below Second Cycle Primary	Count	1	20	1	22
		%	4.5%	90.9%	4.5%	100.0%
	High School	Count	2	45	3	50
		%	4.0%	90.0%	6.0%	100.0%
	College/University	Count	3	20	1	24
		%	12.5%	83.3%	4.2%	100.0%
Total		Count	6	85	5	96
		%	6.3%	88.5%	5.2%	100.0%
Marital Status	Never Married	Count	6	69	3	78
		%	7.7%	88.5%	3.8%	100.0%
	Ever Married	Count	0	16	2	18
		%	.0%	88.9%	11.1%	100.0%
Total		Count	6	85	5	96
		%	6.3%	88.5%	5.2%	100.0%
Age Group	15-19	Count	0	9	0	9
		%	.0%	100.0%	.0%	100.0%
	20-24	Count	3	33	2	38
		%	7.9%	86.8%	5.3%	100.0%
	25-29	Count	1	21	1	23
		%	4.3%	91.3%	4.3%	100.0%
	30-34	Count	1	11	0	12
		%	8.3%	91.7%	.0%	100.0%
	35 -48	Count	1	11	2	14
		%	7.1%	78.6%	14.3%	100.0%
Total		Count	6	85	5	96
		%	6.3%	88.5%	5.2%	100.0%

Table: 5 Risk Perception by Education Level, Marital Status and Age Group

			Risk perception			Total
			No/Low	High/Moderate	Don't Know	
Education Level	Below Primary	Count	9	4	9	22
	Second Cycle	%	40.9%	18.2%	40.9%	100.0%
	High School	Count	29	8	13	50
		%	58.0%	16.0%	26.0%	100.0%
	College/University	Count	13	10	1	24
		%	54.2%	41.7%	4.2%	100.0%
Total		Count	51	22	23	96
		%	53.1%	22.9%	24.0%	100.0%
Marital Status	Never Married	Count	41	18	19	78
		%	52.6%	23.1%	24.4%	100.0%
	Ever Married	Count	10	4	4	18
		%	55.6%	22.2%	22.2%	100.0%
Total		Count	51	22	23	96
		%	53.1%	22.9%	24.0%	100.0%
Age Group	15-19	Count	7	1	1	9
		%	77.8%	11.1%	11.1%	100.0%
	20-24	Count	18	11	9	38
		%	47.4%	28.9%	23.7%	100.0%
	25-29	Count	13	2	8	23
		%	56.5%	8.7%	34.8%	100.0%
	30-34	Count	6	3	3	12
		%	50.0%	25.0%	25.0%	100.0%
	35-48	Count	7	5	2	14
		%	50.0%	35.7%	14.3%	100.0%
Total		Count	51	22	23	96
		%	53.1%	22.9%	24.0%	100.0%

Table: 6. Proportion for Having Had Sex in the Past 12 months by education level, Marital Status and Age Group

			Had sex in the past 12 months		Total
			N0	Yes	
Education Level	Below Primary Second	Count	1	16	17
	Cycle	%	5.9%	94.1%	100.0%
	High School	Count	9	27	36
		%	25.0%	75.0%	100.0%
	College/University	Count	6	16	22
		%	27.3%	72.7%	100.0%
Total		Count	16	59	75
		%	21.3%	78.7%	100.0%

Age Group	15-19	Count	1	3	4
		%	25.0%	75.0%	100.0%
	20-24	Count	6	21	27
		%	22.2%	77.8%	100.0%
	25-29	Count	6	15	21
		%	28.6%	71.4%	100.0%
	30-34	Count	3	7	10
		%	30.0%	70.0%	100.0%
	35 -48	Count	0	13	13
		%	.0%	100.0%	100.0%
Total		Count	16	59	75
		%	21.3%	78.7%	100.0%
Marital Status	Never Married	Count	14	43	57
		%	24.6%	75.4%	100.0%
	Ever Married	Count	2	16	18
		%	11.1%	88.9%	100.0%
Total		Count	16	59	75
		%	21.3%	78.7%	100.0%

Table: 7. Proportions for Number of Non Regular Partners in the past 12 Months by Education Level and Age Group

			Number of Non Regular Partners		Total
			One partner	More than One partner	
Education Level	Below Primary	Count	7	5	12
	Second Cycle	%	58.3%	41.7%	100.0%
	High School	Count	12	10	22
		%	54.5%	45.5%	100.0%
	College/University	Count	8	1	9
		%	88.9%	11.1%	100.0%
Total		Count	27	16	43
		%	62.8%	37.2%	100.0%
Age Group	15-19	Count	2	1	3
		%	66.7%	33.3%	100.0%
	20-24	Count	13	7	20
		%	65.0%	35.0%	100.0%
	25-29	Count	6	3	9
		%	66.7%	33.3%	100.0%
	30-34	Count	2	2	4
		%	50.0%	50.0%	100.0%
	35 -48	Count	4	3	7
		%	57.1%	42.9%	100.0%
Total		Count	27	16	43
		%	62.8%	37.2%	100.0%

Table: 8. Frequency Of Condom Use With Non-Regular Partner(s) In The Past12 Months By Education Level and Age Group

			Frequency of condom use				Total
			Never	Some times	Almost every time	Every time	
Education Level	Below Primary	Count	3	3	2	4	12
	Second Cycle	%	25.0%	25.0%	16.7%	33.3%	100.0%
	High School	Count	6	7	3	6	22
		%	27.3%	31.8%	13.6%	27.3%	100.0%
	College/University	Count	3	3	1	2	9
		%	33.3%	33.3%	11.1%	22.2%	100.0%
Total		Count	12	13	6	12	43
		%	27.9%	30.2%	14.0%	27.9%	100.0%
Age Group	15-19	Count	1	1	0	1	3
		%	33.3%	33.3%	.0%	33.3%	100.0%
	20-24	Count	4	8	3	5	20
		%	20.0%	40.0%	15.0%	25.0%	100.0%
	25-29	Count	2	2	1	4	9
		%	22.2%	22.2%	11.1%	44.4%	100.0%
	30-34	Count	1	2	0	1	4
		%	25.0%	50.0%	.0%	25.0%	100.0%
	35-48	Count	4	0	2	1	7
		%	57.1%	.0%	28.6%	14.3%	100.0%
Total		Count	12	13	6	12	43
		%	27.9%	30.2%	14.0%	27.9%	100.0%

Table: 9. Proportions for Knowledge about Correct Condom Use by Education Level, Marital Status and Age Group

			Know how to use condom correctly		Total
			NO	Yes	
Education Level	Below Primary	Count	13	9	22
	Second Cycle	%	59.1%	40.9%	100.0%
	High School	Count	20	30	50
		%	40.0%	60.0%	100.0%
	College/University	Count	7	17	24
		%	29.2%	70.8%	100.0%
Total		Count	40	56	96
		%	41.7%	58.3%	100.0%
Marital Status	Never Married	Count	31	47	78
		%	39.7%	60.3%	100.0%
	Ever Married	Count	9	9	18
		%	50.0%	50.0%	100.0%

Total		Count	40	56	96
		%	41.7%	58.3%	100.0%
Age Group	15-19	Count	7	2	9
		%	77.8%	22.2%	100.0%
	20-24	Count	13	25	38
		%	34.2%	65.8%	100.0%
	25-29	Count	11	12	23
		%	47.8%	52.2%	100.0%
	30-34	Count	3	9	12
		%	25.0%	75.0%	100.0%
	35 -48	Count	6	8	14
		%	42.9%	57.1%	100.0%
Total		Count	40	56	96
		%	41.7%	58.3%	100.0%

Table: 10. Identified Condom Sources

Sources	Count	%
Shop	70	74.5
Pharmacy	78	83.0
NGO/CSOs	11	11.7
Sexual partner	4	4.3
Health Center/Hospital	44	46.8
Family planning center	16	17.0
Anti-AIDS clubs	16	17.0
Bar/hotel	16	17.0
School	1	1.1
Friend	8	8.5
Family	1	1.1
Street vendors	6	6.4
Peer educators	4	4.3
Total responses	275	292.6*

* Due to multiple responses percentages do not add up to 100

Table: 11. Proportions for Effectiveness of Condom by Level of Education, Marital Status and Age Group

			Believes consistent and correct condom use every time can prevent HIV				Total
			Not at all effective	Moderately effective	Completely effective	Difficult to answer	
Education Level	Below Primary	Count	1	5	7	9	22
	Second Cycle	%	4.5%	22.7%	31.8%	40.9%	100.0%

	High School	Count	0	17	20	13	50
		%	.0%	34.0%	40.0%	26.0%	100.0%
	College/University	Count	1	7	15	1	24
		%	4.2%	29.2%	62.5%	4.2%	100.0%
Total		Count	2	29	42	23	96
			2.1%	30.2%	43.8%	24%	100.0%
Marital Status	Never Married	Count	1	26	32	19	78
		%	1.3%	33.3%	41.0%	24.4%	100.0%
	Ever Married	Count	1	3	10	4	18
		%	5.6%	16.7%	55.6%	22.2%	100.0%
Total		Count	2	29	42	23	96
		%	2.1%	30.2%	43.8%	24.0%	100.0%
Age Group	15-19	Count	0	5	3	1	9
		%	.0%	55.6%	33.3%	11.1%	100.0%
	20-24	Count	1	15	16	6	38
		%	2.6%	39.5%	42.1%	15.8%	100.0%
	25-29	Count	0	5	8	10	23
		%	.0%	21.7%	34.8%	43.5%	100.0%
	30-34	Count	0	2	7	3	12
		%	.0%	16.7%	58.3%	25.0%	100.0%
	35-48	Count	1	2	8	3	14
		%	7.1%	14.3%	57.1%	21.4%	100.0%
Total		Count	2	29	42	23	96
		%	2.1%	30.2%	43.8%	24.0%	100.0%

አዲስ አበባ ዩኒቨርሲቲ
ሶሻል ወርክ ድህረ ምረቃ ት/ቤት

<u>መግቢያ፡</u>–ይህ መጠይቅ መስማትና ማየት የተሳናቸው ሰዎች ስለኤች.አይ.ቪ/ኤድስ ያላቸውን እውቀት ዝንባሌና ተግባራዊ ልምድ ለማጥናት እንዲያስችል መረጃ ለማሰባሰብ የተዘጋጀ ነው። መጠይቁ በአንዳንድ ሰዎች ሊመለስ አስቸጋሪ ሊሆኑ ስለሚችሉና ግላዊ የሆኑ ጥያቄዎችን ያካተተ ነው። ነገር ግን እርስዎ የሚሰጡት እውነተኛና ሀቀኛ ምላሾች ለጥናቱ ወጤት ከፍተኛ ዋጋ አላቸው። የሚሰጡት ምላሾች ሁሉ በጥብቅ ምስጢርነት የሚያዙ ናቸው። ስምዎ አይጻፍም እንይሁም ከማናቸውም መረጃ ጋር ተያይዞ አይቀርብም። ስለሆነም ለዚህ መጠይቅ ለሚሰጡት ምላሾች ሁሉ ከልብ አመሰግናለሁ።

ክፍል 1 አጠቃላይ የግለሰብ መረጃ

ተ.ቁ	መጠይቅ	መልስ		ወደ ጥያቄ እለፍ
ጥ101	ጸታ	ወንድ	1	
		ሴት	2	
ጥ102	የአካል ጉዳት አይነት	ማየት የተሳነው/ናት	1	
		መስማት የተሣነው/ናት	2	
ጥ103	እድሜዎ ስንት ነው	እድሜ ዓመት	/...../...../	
		አላውቅም	88	
		መልስ የለም	99	
ጥ104	ሀይማኖትዎ ምንድን ነው?	ክርስትያን	1	
		እስልምና	2	
		ሀይማኖት የለኝም	3	
		ሌላ ይገለጽ _____	4	
		አላውቅም	88	
		መልስ የለም	99	
ጥ105	መደበኛ ትምህርት ተምረው ያውቃሉ	አዎን	1	
		አልተማርኩም	2	→ ጥ107
		መልስ የለም	99	
ጥ106	ያጠናቀቁት ከፍተኛ የትምህርት ደረጃ ምን ያህል ነው?	ማንበብና መጻፍ	1	
		አንደኛ ደረጃ የመጀመሪያ ሳይክል /ከ1ኛ–4ኛ ክፍል/	2	
		አንደኛ ደረጃ ሁለተኛ ሳይክል /ከ5ኛ – 8ኛ ክፍል/	3	
		ሁለተኛ ደረጃ የመጀመሪያ ሳይክል /ከ9ኛ – 10ኛ ክፍል/	4	
		ሁለተኛ ደረጃ ሁለተኛ ሳይከል /11ኛ – 12ኛ ክፍል/	5	
		ኮሌጅ/ዩኒቨርሲቲ	6	
		መልስ የለም	99	

ጥ107	ስራዎ ምንድን ነው?	የደመወዝ ቅጥር ሰራተኛ 1 ስራ የለኝም 2 የግል ሰራተኛ 3 ተማሪ 4 ሌላ ይገለፅ _____5 መልስ የለም 99	
ጥ108	የጋብቻ ሁኔታ	ያላገባ/ች/ 1 ያገባ/ች 2 የተፋታ/ች የተለየ/ች የሞተበት/ባት 3 መልስ የለም 99	

ክፍል 2 ስለ ኤድስ በሽታ እውቀት/አስተያየት እና አመለካከትን በተመለከተ

ተ.ቁ	መጠይቅ	መልስ	ወደ ጥያቄ እለፍ
ጥ201	ኤድስ የተባለ በሽታ ወይም ኤች አይ ቪ እንዳለ ሠምተዋል?	አዎን ሰምቻለሁ 1 የለም አልሰማሁም 2 መልስ የለም 99	
ጥ202	በኤች አይ ቪ የተያዘ ወይም የሞተ ሰው ያውቃሉ?	አዎን አውቃለሁ 1 የለም አላውቅም 2 አላውቅም/እርግጠኛ አይደለሁም 88 መልስ የለም 99	
ጥ203	ሰዎች በግብረ ሥጋ ግንኙነት ወቅት ኮንዶም ሁል ጊዜና በአግባቡ በመጠቀም ራሣቸውን ከኤች አይ ቪ መከላከል ይችላሉ?	አዎን ይችላሉ 1 የለም አይችሉም 2 አላውቅም 88 መልስ የለም 99	
ጥ204	ሰዎች በወባ ትንኝ ንክሻ ኤች አይ ቪ ሊይዛቸው የችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ205	ሰዎች በኤድስ ቫይረስ ከተያዘ ሰው ጋር ምግብ ቢመገቡ በሽታው ሊይዛቸው ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ206	ሌላ ሰው በተወጋበትና ባልተቀቀለ መርፌ በመጠቀም አንድ ሰው በኤድስ ቫይረስ ሊያዝ ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	

ጥ207	ኮንዶም የዋጠች ዶሮ የጣለችውን ያልተቀቀለ/ያልበሰለ እንቁላላ በመብላት በኤች አይ ቪ ሊይዝ ይችላል?	አዎን ይችላል 1 የለም አይያዝም 2 አላውቅም 88 መልስ የለም 99	
ጥ208	ሰዎች ኤች አይ ቪ የተየዘ ሰው ያዘጋጀውን ጥሬ ስጋ ወይም ክትፎ በመብላት በኤች አይ ቪ ሊይዛቸው ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ209	ሀይለኛ የአልኮል መጠጦችን መጠጣት ወይም የሚያቃጥል በርበሬ መብላት ከኤች አይ ቪ/ኤድስ መከላከል ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ210	ሰዎች ኤች አይ ቪ/ኤድስ የያዘውን ሰው ምራቅ ወይም ላብ ቢነኩ ቫይረሱ ሊይዛቸው ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ211	ሰዎች በአንድ ታማኝና ጤነኛ የግብረ ሥጋ ግንኙነት ጓደኛ በመወሰን ራሣቸውን ከኤች አይ ቪ መከላከል ይችላሉ?	አዎን ይችላል 1 የለም አይቻልም 2 አላውቅም 88 መልስ የለም 99	
ጥ212	ሰዎች ከግብረ ሥጋ ግንኙነት ተአቅቦ በማድረግ ራሣቸውን ከኤች አይ ቪ ከመያዝ መከላከል ይችላሉ?	አዎን ይችላል 1 የለም አይቻልም 2 አላውቅም 88 መልስ የለም 99	
ጥ213	አንድ ጤነኛ የሚመስል ሰው በኤች አይ ቪ አምጪ ሕዋስ የተያዘ ሊሆን ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ214	ኤች አይ ቪ ከእርጉዝ ሴት ወዳልተወለደ ህፃን ሊተላለፍ ይችላል?	አዎን ይችላል 1 የለም አይችልም 2 አላውቅም 88 መልስ የለም 99	
ጥ215	እርጉዝ ሴት ፀረ ኤች አይ ቪ መድሀኒት በመጠቀም ህፃኑ በቫይረሱ እንዳይያዝ ማድረግ ትችላለች?	አዎን ይችላል 1 የለም አይቻልም 2 አላውቅም 88 መልስ የለም 99	

ጥ216	ኤድስ አስፈሪና መድሀኒት የሌለው በሽታ ነው ብለው ያምናሉ?	አዎን አምናለሁ 1 አላምንም 2 አላውቅም 88 መልስ የለም 99	
ጥ217	በኤች አይ ቪ የመያዝ እድልዎ ምንያህል ነው ብለው ያምናሉ?	የመያዝ ዕድሉ የለም 1 ዝቅተኛ 2 መካከለኛ 3 ከፍተኛ 4 አላውቅም 88 መልስ የለም 99	

ክፍል 3 የግብረ ሥጋ ግንኙነት ልምድን በተመለከተ

ተ.ቁ	መጠይቅ	መልስ	ወደ ጥያቄ እለፍ
ጥ301	ከተቃራኒ ጾታ ጋር የግብረ ስጋ ግንኙነት አድርገው ያውቃሉ?	አዎን፣ አድርጌ አውቃለሁ 1 የለም አድርጌ አላውቅም 2 መልስ የለም 99	→ ጥ401
ጥ302	የግብረ ስጋ ግንኙነት የጀመሩበት ምክንያት ምንድን ነው?	በፍላጐት 1 ስለተደፈርኩ/በግዴታ 2 ሌላ ቢገለጽ _____ 3 አላውቅም/አላስታውስም 88 መልስ የለም 99	
ጥ303	ለመጀመሪያ ጊዜ የግብረ ሥጋ ግንኙነት በስንት አመት ጀመሩ?	እድሜ በአመት /...../...../ አላውቅም 88 መልስ የለም 99	
ጥ304	ለመጀመሪያ ጊዜ ግብረ ስጋ ግንኙነት ባደረጉበት ጊዜ ኮንዶም ተጠቅመዋል?	አዎን 1 የለም አልተጠቀምኩም 2 አላስታውስም/አላውቅም 88 መልስ የለም 99	
ጥ305	ባለፉት 12 ወራት ከተቃራኒ ጾታ ጋር የግብረ ሥጋ ግንኙነት አድርገው ነበርን?	አዎን አድርጌ ነበር 1 የለም አላደረግሁም 2 መልስ የለም 99	→ጥ 401
ጥ306	ባለፉት 12 ወራት ውስጥ የትዳር ጓደኛ ወይም አብረው የኖሯቸው የግብረ ሥጋ ግንኙነት ጓደኛ/ጓደኞች ብዛት ስንት ነው?	**ምንም ከሌለ 00 ይሞላና ወደ ጥያቄ 308 እለፍ** መደበኛ የግብረ ሥጋ ግንኙነት ጓደኛ በቁጥር /.... /..../ አላውቅም 88 መልስ የለም 99	

ጥ307	ባለፉት 12 ወራት ከመደበኛ የግብረ ሥጋ ግንኙነት ጓደኛዎ/ጓደኞችዎ/ ጋር በምን ያህል ድግግሞች ኮንዶም ተጠቅመዋል?	ሁልጊዜ 1 አብዛኛው ጊዜ 2 አንዳንድ ጊዜ 3 ምንም ጊዜ አልተጠቀምንም/በጭራሽ/ 4 አላውቅም/አላስታውስም 88 መልስ የለም 99	
ጥ308	ባለፉት 12 ወራት ውስጥ የትዳር ጓደኛዎ ያልሆኑ ወይም አብረው ያልኖሯቸው የግብረ ሥጋ ግንኙነት ጓደኛ/ጓደኞች ብዛት ስንት ነው? / በገንዘብ ክፍያ የፈጸሙት የግብረ ስጋ ግንኙነት ጓደኛ ይጨምራል/	**ምንም ከሌለ 00 ይሞላና ወደ ጥያቄ 401 እለፍ** *መደበኛ ያልሆነ የግብረ ሥጋ ግንኙነት ጓደኛ* በቁጥር /...../...../ አላውቅም 88 መልስ የለም 99	
ጥ309	ባለፉት 12 ወራት ውስጥ የትዳር ጓደኛዎ ካልሆኑ ወይም አብረው ካልኖሯቸው የግብረ ሥጋ ግንኙነት ከፈጸሟቸው ጓደኛ/ጓደኞች ጋር በግብረ ስጋ ግንኙነቶች ወቅት በምን ያህል ድግግሞሽ ኮንዶም ተጠቅመዋል?	ሁልጊዜ 1 አብዛኛው ጊዜ 2 አንዳንድ ጊዜ 3 ምንም ጊዜ አልተጠቀምንም/በጭራሽ/ 4 አላውቅም 88 መልስ የለም 99	

ክፍል 4 ኮንዶምን በተመለከተ

ተ.ቁ	መጠይቅ	መልስ			ወደ ጥያቄ እለፍ
ጥ401	ኮንዶም ምን እንደሆነ ያውቃሉ?	አዎን አውቃለሁ	1		
		የለም አላውቅም	2		
		መልስ የለም	99		
ጥ402	ኮንዶም የሚገኝበት ቦታ ወይም ከማን እንደሚያገኙ ያውቃሉ?	አዎን አውቃለሁ	1		
		የለም አላውቅም	2		→ጥ 404
		መልስ የለም	99		
ጥ403	ኮንዶምን የሚገኝበት ቦታ ወይም ግለሰብ ይጥቀሱ?		አዎን	የለም	
		1 ከሱቅ	1	2	
		2 ፋርማሲ	1	2	
		3ከግብረ ሰናይ ድርጅት/ ማህበራት	1	2	
	ከተጠቀሰ ቁጥር 1 አክብብ	4 ከግብረ ስጋ ግንኙነት ጓደኛ	1	2	
		5 ከጤና ጣቢያ/ሆስፒታል	1	2	
		6 ከቤተሰብ ምጣኔ ማዕከል	1	2	
		7 ከፀረ ኤድስ ክበብ/ማዕከል	1	2	
		8 ቡና ቤት/ሆቴል	1	2	
		9. ከትምህርት ቤት	1	2	
		10 ከጓደኛ	1	2	
		11 ከቤተሰብ	1	2	
		12 ከሸቀጣ ሸቀጥ አዟሪዎች	1	2	
		13. አቻ ለአቻ አስተማሪ	1	2	
		14 ሌላ ይገለፅ_____	1	2	
		99 መልስ የለም	1	2	
ጥ404	በትክክል ኮንዶም እንዴት መጠቀም እንደሚቻል ያውቃሉ?	አዎን አውቃለሁ	1		
		የለም አላውቅም	2		
		መልስ የለም	99		
ጥ405	አንዳንድ ሰዎች ኤች አይ ቪን ለመከላከል ኮንዶም ይጠቀማሉ በእርስዎ እምነትና አስተያየት ኮንዶምን በግብረ ስጋ ግንኙነት ወቅቶች ሁሉ ያለማቋረጥና በትክክል ከተጠቀሙ ኤች አይ ቪን ለመከላከል ምን ያህል ውጤታማ ነው ይላሉ?	በጭራሽ ውጤታማ አይደለም	1		
		በመጠኑ ውጤታማ ነው	2		
		በጣም ውጤታማ ነው	3		
		ለመመለስ ያስቸግራል	88		
		መልስ የለም	99		

ጊዜዎን ውስደው ጥያቄዎቹን በመመለስ ስለተባበሩ አመሰግናለሁ