

**Assessment of Voluntary Counseling and Testing  
Service Utilization among Youths: A Case of Gelemso  
High School**

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**By**

**Anteneh Gemechu**

**ID.NO. 109100758**

**Advisor**

**Assaye Legesse (Mr)**

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### **Declaration**

I hereby declare that dissertation entitled **Assessment of voluntary counseling and testing (VCT) utilization among youths: A case of Gelemso high school** submitted by me for the partial fulfillment of MSW to Indira Gandhi national Open University, (IGNOU) New Delhi is my own original work and has not been submitted earlier, either to IGNOU or to another institution for the fulfillment of the requirement for any other programme of study. I also declare that no chapter of this manuscript in whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

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**Certificate**

This is to certify that *Mr.* Anteneh Gemechu Student of MSW from Indira Gandhi National Open University, New Delhi was working under my supervision and guidance for his her project work for the course MSWP-001. His /her Project work entitled '**Assessment of Voluntary Counseling and Testing (VCT) Service Utilization among Youths: A Case of Gelemso High School**' which he/she is submitting, is his/her genuine and original work.

Place: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address of the supervisor:

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Phone No: \_\_\_\_\_



### **Dedication**

I would like to dedicate this thesis to my late grandmother Abebech Dinka (Emama). She passed away suddenly in February, 2013. My grandmother was my inspiration, a counselor and guide in my life. She taught me how to live, laugh and Care for others. 'Emama' I will never forget your care, support and kindness! More importantly, you instilled in me the importance of persistence, never giving up, setting high goals and the confidence to achieve them. May your soul rest in peace!

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The wise know that any success comes only through the support of many individuals, and that we stand on the shoulders of those who have come before us. Writing this thesis has only been possible because of the encouragement and assistance of a number of people.

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## **List of Abbreviations and Acronyms**

**AIDS:** Acquired Immunodeficiency Syndrome

**ANC:** Antenatal Care

**BCC:** Behavioral Change Communication

**BSS:** Behavior Surveillance Survey

**FP:** Family Planning

**FGAE:** Family Guidance Association of Ethiopia

**HAPCO:** HIV/AIDS Prevention and Control Office

**IEC:** Information, Education and Communication

**MOH:** Ministry of Health

**PMTCT:** Prevention of Mother-to- Child Transmission

**UNAIDS:** Joint United Nations Program on HIV/AIDS

**VCT:** Voluntary Counseling and Testing

**WHO:** World Health Organization

## Abstract

Voluntary counseling and testing (VCT) is an important tool for preventing infection and it allows young people to evaluate their behavior and the consequences thereof. Knowledge of HIV status is the gate way to behavioral change, treatment, care, support and has documented prevention benefits. Youth (15-24 years) are particularly vulnerable to HIV because of the strong influence of peer pressure and the development of their sexual and social identities which often leads to experimentation. As they are initiating sexual behavior, counseling for safe practice is vital. . However, current reach of HIV testing services is poor and the uptake is low largely.

This particular study aims to assess VCT service utilization among youths of Gelemso townhigh school. The study involved 378 youths from Gelemso High school. A two-stage sampling method was used to select study participants from the high school. The study employed structured questionnaire for data collection. The frequency and percentage was used for analyzing data collected from respondents.

The Findings indicated majority of Youths 94.17% (n=356) heard about VCT. Mass media was cited more frequently as source of information (55.33 % ( n=197). The majority of youths 74.43 % ( n=265) reported that they haven't had VCT whereas 25.56 % ( n=91) reported that they had VCT before. All respondents who heard of VCT agreed that VCT is important, and stated the reason to know self-59.26 % ( n=211) that is followed by to plan for future life 15.16 % ( n=54).

As a final point, the papers suggested some themes that may help improvement of VCT service utilizations among youths. The mass media have become a major source of information about HIV/AIDS and VCT; mass media professionals should have to capitalize on it and work for providing accurate and consistent information. It is also advisable to provide voluntary HIV counseling and testing services in schools and youth clubs to extend the VCT service to more by younger youth. The existing health institution preferably to provide youth-friendly VCT service and working during extra regular days and hours (weekends and late afternoon).

## 1. INTRODUCTION

### 1.1. Background

Worldwide, Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) poses an enormous challenge on the survival of mankind. The HIV pandemic remains the most serious of infectious disease challenges to public health. Promising developments have been seen in recent years in global efforts to address the AIDS epidemic, including increased access to effective treatment and prevention programmes. However, the number of people living with HIV and deaths due to AIDS continues to grow. Sub-Saharan Africa remains the most seriously affected region, with AIDS remaining the leading cause of death there. More than two thirds (68%) of all people HIV-positive live in this region where more than three quarters (76%) of all AIDS deaths in 2007 occurred (UNAIDS, 2007).

Nearly 12 million young people are living with HIV/AIDS; and more than 7,000 young people become infected with HIV every day. Young people have limited access to information and services, they are socially inexperienced and dependent on others, and they may be influenced by peer pressure in ways that increase their risks for HIV infection. In particular, young girls and young women are more biologically vulnerable to HIV infection than are mature women and men (WHO, 2006).

Ethiopia is one of the countries hard hit by the HIV/AIDS pandemic. Since the first two reported AIDS cases in 1986, the disease has spread at an alarming rate throughout the country. The point prevalence estimate in 2007 showed that, the number of people living with HIV/AIDS was 977,394 and of these 578,018 (59%) were females. The national adult HIV prevalence in the same year was estimated to be 2.1%, of which 7.7% was from urban and 0.9% from rural areas According to the 2006 report of AIDS in Ethiopia, people between 15-24years had the highest prevalence of HIV, 5.6%. (FMOH and etal, 2006)



HIV Counseling and Testing has been identified as the key entry point to prevention, care, treatment and support services, where people learn whether they are infected, and are helped to understand the implications of their HIV status and make informed choices for the future. Currently, most people remain unaware of their HIV status due to various reasons. However, with the development of affordable and effective medical care for people living with HIV, the demand for testing has rapidly increased, creating an urgent need to improve access and quality of the service.(FMOH, 2007)

Children and youth have unique vulnerability to HIV infection. Youth (15-24 years) are particularly vulnerable to HIV because of the strong influence of peer pressure and the development of their sexual and social identities which often leads to experimentation. As they are initiating sexual behavior, counseling for safe practice is vital. Adolescents should be counseled to delay their sexual debut and practice abstinence (FMOH, 2007)

The majority of young people in the age group 15-24 years may be at risk of HIV infection due to their engagement in unsafe sex. Young people may also be at risk for HIV infection from unsafe injection drug use, exposure to contaminated blood and blood products or unsterilized skin-piercing procedures. In Africa alone, an estimated 1.7 million young people are infected annually. Preventing HIV among young people is particularly critical in SSA, where in many countries young people comprise more than 30% of the population and general HIV prevalence rates often exceed 10% (Boswelland Baggaley, 2002).

Various studies have shown that acceptance of VCT is influenced by knowledge about HIV transmission and prevention, knowledge about VCT, positive attitudes towards HIV testing and self-perceived risk of HIV infection. A study on HIV voluntary counseling and testing service preference in rural Malawi among 868 women aged 15-34 and 648 men aged 20-44 revealed that knowledge about HIV/AIDS prevention, knowing someone with AIDS, knowing the location of a test site and perceived risk of HIV infection all had consistently significant association with VCT use for men and women (Johnson and et al., 2005).

Voluntary counseling and testing (VCT) has been recognized as one of the essential prevention interventions to control the HIV pandemic. Especially youth lived in Gelemso town are involved in risky behaviors, like chat chewing. However due emphasis has not been given to assess factors associated with the utilization VCT service among youth in the area. Therefore, the aim of this study was to assess factors that contribute to VCT service utilization among youth in Gelemso town, eastern Ethiopia. The findings of the study might be helpful to expand and improve the service of VCT and contributing to the HIV/AIDS prevention and control programs distinctively in the town and Ethiopia in general.

## **1.2 Statement of the Problem**

Ethiopia is one of the sub-Saharan countries highly affected by the HIV/AIDS pandemic. The adult prevalence of HIV infection in Ethiopia was estimated at 2.4% in which most of the burden occurring among the young age groups (FMoH, 2007).

Recent studies indicate that overall coverage of voluntary counseling and testing (VCT) are extremely poor in countries with very high HIV/AIDS burden. Only 5% of the people with HIV/AIDS are estimated to be aware of their status worldwide (WHO, 2004).

Access to VCT is a key for successfully implementing anti-retroviral treatment and avoiding re-infection and transmission through behavioral changes. Voluntary counseling and testing (VCT) also entry points for successful implementation of prevention, care and support services among both HIV negative and positive individuals. Effective knowledge of HIV status is critical to expanding access to HIV treatment, care and support timely and in offering people living with HIV an opportunity to receive information and tools to prevent transmission to others. However, VCT service is not available in most regions of Africa. For our things there is a scarcity of information regarding barriers to HIV testing in sub-Saharan Africa including Ethiopia (WHO, 2004).

Available studies in Ethiopia indicated that only 41% of the school-youth were aware of the existence of confidential HIV testing in their vicinity. The proportion of youth that had VCT was below 10%. In these studies, nearly half of the youth perceived themselves to be at low or no risk in spite of engagement in multiple sexual partnerships (MOH and HAPCO, 2005).

Studies done both in developed (CDC HIV and AIDS surveillance Report, 2004; Hall, Ruiguang, Rhodes et al. 2008:523) and developing countries (Mwandira 2008; Thupayagale –Tshweneagae 2010:34) recognizes adolescent friendly services such as voluntary HIV counseling and testing (VCT) as the best modern of educating adolescents about HIV and AIDS related risks. The majority of adolescents may be at risk of HIV infection due to their engagement in unsafe sex. Young people are also being at risk for HIV infection from unsafe injection drug use, exposure to contaminated blood product or unsterilized skin-piecing procedures. In Africa alone, an estimated 1.7 million young people are infected annually. Preventing HIV amongst adolescents is particularly critical in Sub Saharan Africa (SSA), where in many countries adolescents comprise more than 30% of the population and general HIV prevalence rates often exceed 10%. (Kabiru and et al., 2011, pp.3)

The prevalence of HIV and AIDS amongst adolescents in Ethiopia is 4.8%. Some studies, (Alemu, Abseno, Degu, Wondmikun&Amsalu 2004:85; Tegegn, Yazachew&Gelaw 2008: 244) attribute the high prevalence of HIV and AIDS amongst the youth to poor understanding of the sources of transmission, lack of relevant knowledge; attitudinal problems and unfriendly services for adolescents. HIV pandemic is a major threat to adolescents; understanding how to prevent transmission is the first step to avoid infection (United Nations 2010, pp.41–46). This is especially important for adolescents and the youth who, in 2008, accounted for 40% of new HIV infections worldwide (United Nations 2010, pp.41–46). Comprehensive and correct knowledge of HIV amongst this group is still unacceptably low in most countries. (United Nations 2010, pp. 41–46)

The purpose of this study will be to assess factors influencing VCT utilization of youths. And also the study will attempt to facilitate ways to change the attitude of youths in Gelemso. Specifically, the study sought to answer the following questions:

- What are factors inhibiting utilization of VCT among youths?
- What are factors facilitating utilization of VCT among youths?
- What is the willingness of utilizing VCT service among youths?
- What is the magnitude of VCT utilization among youths?
- What is knowledge and attitude towards HIV/AIDS and VCT among youths?

### **1.3 Objectives**

#### **1.3.1 General objective**

The general objective of the study is to assess voluntary counseling and testing (VCT) utilization among youths in Gelemso high school.

#### **1.3.2. Specific objectives:**

This study distinctly placed to:

- Identify factors inhibiting utilization of VCT among youths
- Identify factors facilitating utilization of VCT among youths
- Assess youth's willingness in utilizing VCT service at Gelemso VCT centers
- Determine magnitude of VCT utilization among youths.
- Examine knowledge and attitude towards HIV/AIDS and VCT among youths.
- Forward possible suggestions / recommendations for effectual VCT utilization

### **1.4 Scope of the Study**

The study will be delineated its scope to school youths of Gelemso town. The research did not include youths that are not in school. Therefore, the focus of this study is assessing factors contributing to VCT utilization among youths Gelemso High school.

### 1.5 Significance of the Study

Albeit, the concept of VCT is widely studied theme in the west, there is hardly any study done in Ethiopia. Therefore, this pioneer study will:

- Add up to the knowledge regarding VCT and help individuals to synthesize the attitude youths have towards VCT.
- Provide information about attitudes of high school students towards the utilization of VCT services.
- Assist policy makers in improving the VCT services for adolescents who make up the majority of people affected by the HIV and AIDS pandemic in the world, and especially in Ethiopia.
- Serve as a basis for a larger, more detailed study on what needs to be done to bridge the gap between knowledge, attitudes and the utilization of VCT services.

### 1.6 Definition of Operational Terms

**Adolescence:**refers to secondary school students, aged 15–19 years, in Gelemso, Ethiopia.

**Counseling:**refers to purposeful dialogue between a person and care provider aimed at enabling a person to cope with stress and make personal decisions about taking an HIV test.

**Discrimination:**refers to an expression of individual attitudes; a social process used to create and maintain social control to produce and reproduce social inequality; an action or treatment based on stigma and directed towards stigmatization.

**HIV Knowledge:**refers to respondents' understanding of abstinence, faithfulness to one uninfected partner, and consistent condom use as a means of preventing HIV transmission.

**Stigma:** – negative feeling toward people with HIV/AIDS, intention to avoid people living with HIV/AIDS from social relationship.

**Willingness:** readiness to undergo to VCT.

**VCT:** refers to a process by which an individual undergoes counseling to enable him or her to make informed choices about being tested for HIV.

### **1.7 Organization of the Thesis**

The study will be divided into five sections. The first section will introduce the topic and the background and nature of the problem. It presents a succinct overview factors affecting VCT among youths. The second section will present a review of literature. The second section will present a review of literature. In this chapter literature gathered from different sources like books, magazines, journals and internet will be presented. The third section will discuss the methodologies that will be used for the study. The fourth and fifth chapter will be presenting the results and findings. And the final section will present the conclusion and suggestion.

## **2. LITERATURE REVIEW**

### **2.1. Overview of HIV/AIDS**

Globally, the HIV/AIDS epidemic remains a major public health, social, economic and development challenge. According to global summary of AIDS epidemic 2007, 33.2 million people living with HIV worldwide, 2.5 million newly infected people with HIV and an estimated 2.1 million people died due to AIDS. Every day, over 6800 persons become infected with HIV and over 5700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services. Sub-Saharan Africa remains the most seriously affected region, with AIDS remaining the leading cause of death there. It is estimated that 1.7 million people were newly infected with HIV in 2007, bringing to 22.5 million the total number of people living with the virus. Unlike other regions, the majority of people living with HIV in sub-Saharan Africa (61%) are women (UNAIDS, 2007).

### **2.2. Overview of Voluntary Counseling and Testing**

There are different HIV prevention strategies. The most common strategies are Information, Education and communication (IEC) campaign, community mobilization, condom promotion and distribution, STI management, VCT, PMTCT, ART, school based HIV/AIDS education, etc. VCT is an effective strategy for facilitating behavior change for both clients that test negative and positive. VCT is a cost-effective intervention for behavioral change. In addition, VCT is an important entry point to other HIV/AIDS services, including prevention of mother to child transmission (PMTCT), prevention and management of HIV related illnesses, and social support. From a human rights perspective, VCT can play a role in addressing stigma and discrimination. Making VCT more accessible to enable people to know their status can help break the cycle of silence and the myths and misconceptions that fuel the epidemic and may assist in the normalization of having an HIV test (IPPF and UNFPA, 2004)



Voluntary counseling and testing (VCT) of HIV is the process whereby an individual or couple undergoes counseling to enable him/her/them to make an informed choice about being tested for HIV. This decision must be entirely the choice of the individual/s and he/she/they must be assured that the process will be confidential (FHI, 2002).

Voluntary counseling and testing (VCT) is much more than drawing and testing blood and offering a few counseling sessions. It is a vital point of entry to other HIV/AIDS services, including prevention and clinical management of HIV-related illnesses, tuberculosis (TB) control, psychosocial and legal support, and prevention of mother-to child transmission (PMTCT) of HIV. High-quality VCT enables and encourages people with HIV to access appropriate care and is an effective HIV-prevention strategy. VCT can also be an effective behavior-change intervention. VCT offers a holistic approach that can address HIV in the broader context of peoples' lives, including the context of poverty and its relationship to risk practice (Ibid).

Voluntary counseling and testing (VCT) is an important tool for preventing infection and it allows young people to evaluate their behavior and the consequences thereof. Knowledge of HIV status is the gate way to behavioral change, treatment, care, support and has documented prevention benefits. However, current reach of HIV testing services is poor and the uptake is low largely because of fears of stigma and discrimination (UNAIDS, 2004).

### **2.3. Principles of VCT services**

Pretest, post-test and ongoing counseling are part of the services provided at all VCT sites. Services are voluntary, and are used by clients who have already decided that they want to take HIV test. Confidentiality is an essential component of all the services, at the same time, openness towards partners and families about the status is promoted. Services are anonymous and results are never given over the telephone or disclosed to another person. Clients are identified only by numbers even if they are registered under their name. Counseling sessions are tailored to the individual or couples attending. Continuity of counseling is also emphasized, with the majority of clients seeing the same counselor for pretest, post- test and ongoing counseling(UNAIDS, 2002).

### **2.4. Significance of VCT**

VCT offers benefits to those who test positive *or* negative. VCT alleviates anxiety, increases clients' perception of their vulnerability to HIV, promotes behavior change, facilitates early referral for care and support including access to antiretroviral (ARV) therapy-and assists in reducing stigma in the community (FHI, 2002).

VCT provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment with counseling and referral for ongoing emotional support and medical care. People who have been tested sero-positive can benefit from earlier appropriate medical care and interventions to treat and/or prevent HIV- associated illnesses. Pregnant women who are aware of their sero-positive status can prevent transmission to their infants. Knowledge of HIV serostatus can also help people to make decisions to protect themselves and their sexual partners from infection. Studies have indicated that VCT may be a relatively cost- effective intervention in preventing HIV transmission in developing countries including low prevalence settings (WHO, 2001).

## **2.5 HIV and AIDS Epidemic in Ethiopia**

The HIV epidemic in Ethiopia is generally considered to be high, with increasing levels of economic hardship, expanding urbanization, increased mobility due to labour migration, a history of conflicts and civil disruption, and better educational and trading opportunities facilitating the spread. (The World Bank 2008:3, 23). Since the first two reported AIDS cases in 1986, the deaths have spread at an alarming rate throughout the country (FMOH/HAPCO 2007:8, 44). In fact, any attempt to analyze the epidemiology of HIV in Ethiopia is limited by the lack of sufficient longitudinal, cross-sectional and behavioral data. The country's HIV epidemic varies according to region, so HIV and AIDS programmes should not only be based on national-level statistics but should be more geographically focused, directed to those regions, districts or communities exhibiting high prevalence rates (The World Bank 2008:46). Conducting research and disaggregating data to the district level in order to identify population groups at higher risk are mandatory to expand services such as VHCT, treatment of sexually transmitted infections, antenatal and postnatal prevention of mother to child transmission (PMTCT), TB/HIV integration, and services targeted to specific populations, including youth, students, sex workers, migrants, refugees and other displaced populations, and the uniformed services (The World Bank 2008:49). In 2007, the national adult HIV prevalence was estimated to be 2.1%, of which 7.7% was from urban areas and 0.9% from rural areas (FMOH/HAPCO 2007, pp.8, 44). Similarly in 2010, adult HIV prevalence in Ethiopia was 2.1% (United Nations 2010a:pp.1-2).

Even though various efforts at preventing the spread of HIV have been carried out in the country, HIV infection is still on the increase in Sub-Saharan Africa, and AIDS is now recognized as the leading cause of adult morbidity and mortality in Ethiopia. Unprotected sex and the high frequency of casual partners are the cause for the fast progression of the epidemic (FMOH and HAPCO 2006, pp.1- 12).

In 2003, a study was conducted on urban and rural out-of-school youths and their thoughts about STD, HIV and AIDS and factors associated with these behaviors in the Ethiopian district of DeraWoreda. These results indicated that 8.6% of school youths in urban areas and 6.5% of school youths in rural areas had heard about AIDS but had incorrect conceptions about HIV prevention. Some of these misconceptions included drinking locally brewed liquor and eating hot peppers as means of HIV prevention (Alemu 2003, pp.50).

## **2.6 Adolescents and HIV and AIDS**

Young people aged between 10 and 24 years account for over 50% of all HIV infections occurring worldwide (UNAIDS 2010:10). Preventing HIV among young people is particularly urgent in sub-Saharan Africa where, in many countries, youths comprise over 30% of the population and general HIV prevalence rates are high (UNAIDS 2001:32). Several cultural, biological and environmental factors place young people; especially adolescents aged 10 to 19, at an increased risk. Young people often begin their sexual lives at an early age (UNAIDS 2001:33). HIV prevalence rates among youth reflect the realities of these risks. Altogether, HIV rates are high among youth with HIV infected females being disproportionately affected, with a ratio to infected males in excess of 4:1 in some populations (UNAIDS 2001,pp.33).

Young people between the ages of 15 and 24 years are the most threatened globally – they account for 45% of all new cases of HIV worldwide. Lack of knowledge and information often prevents adolescents from making well-informed decisions about their situation and prevents them from finding ways out of abusive or exploitative situations. Adolescents who are unaware of their rights or are unaware of the potential for exploitation and violence are at risk for abuse. They need information and knowledge to protect them (Adolescent Development and Participation Unit Program Division 2006, pp.19).

HIV prevalence was found to be particularly high among orphaned adolescents (Jerker & Nichola 2009:44). Higher rates of sexual behavior were found among orphans than among other children (Jerker & Nichola 2009:44). There are many reasons why orphans may be sexually more vulnerable than other children. Being orphaned has been associated with psychological stress including low perceived self-efficacy, feelings of lack of control over sexual health and riskier sexual behaviors. There is also more disaggregated data and a wealth of evidence that suggest relative poverty in the context of inequality and urbanization can increase riskier behaviors and raise the odds of contracting HIV – particularly for young people (Jerker & Nichola 2009, pp.44).

Education provides adolescents with skills; knowledge and an understanding of sexual risk, as well as sources of peer support and social capital. More comprehensive ways of teaching adolescents by providing different options and factual information have been shown to be effective in many cases (Thupayagale-Tshweneagae 2010, pp.260).

Negative influence by young people is one of the most visible forms of violence in society. Youth influence harms not only its victims but also their families, friends and communities (Adolescent

Development and Participation Unit Program Division 2006, pp.27). Violent young people also often engage in alcohol and substance abuse, drop out of school, drive recklessly, and practice unprotected sex (Adolescent Development and Participation Unit Program Division 2006, pp.27). A combination of these factors results in high rates of STIs and an increased risk of HIV infection. VHCT service is one of the first public health interventions to address adolescents' knowledge and attitude gaps on the transmission of HIV.

### **2.7 HIV and AIDS among Adolescents in Ethiopia**

Ethiopia is a nation of young people – over 65% of its population is under 25 years of age. It is also a nation whose youth have profound reproductive health needs. Among the many sexual and reproductive health problems faced by youth in Ethiopia are gender inequality, sexual coercion, early marriage, female genital mutilation, unplanned pregnancies, sexually transmitted infections (STIs), and AIDS (Youth Net Assessment Team 2004, pp. 2).

Young people in Ethiopia also disproportionately suffer from the country's unsustainable population growth. This rapid population increase strains the government's ability to provide health care to young people. Besides unsustainable population growth, the spectre of AIDS hangs heavily over Ethiopian youths. In 2006, HIV prevalence was 6.6% in the adult population and a large proportion of new HIV infections were in young people under 25 years of age (Youth Net Assessment Team 2004, pp. 2).

In Ethiopia, the highest HIV prevalence still occurs in the 15-24 years age group (Attawell 2004:3), this scenario is still true 8 years later (UNAIDS 2011:16). The same age group of women who are sexually active but never married contributed to the maximum concentration of HIV infection and

are expected to bring about a decrease in the population's life expectancy (The World Bank 2008:20). A variety of factors are placing young people at the center of HIV vulnerability. Young girls in Ethiopia are more vulnerable to HIV than boys because of their early age at sexual debut, early marriage, sexual abuse and violence such as rape and abduction (The World Bank 2008:17). The disparity in HIV infection between males and females signals the fact that gender affects not only the general level of HIV prevalence, but also the shape of the prevalence curve. (The World Bank 2008:23).

A study conducted in Fiche and MukeTuri High Schools, North Shoa Zone, Ethiopia, on high school adolescents was carried out to determine the effects of the use of pamphlets on knowledge and attitude towards VHCT. This randomized controlled intervention revealed that among respondents 11.6% had one sexual partner, 7.3% had more than one sexual partner and 18.9% had already had sex (Tolcha 2007:46). This result indicated that students were at risk of HIV infection because of the high-risk behaviors they were engaged in.

Young people are a critical focus for behavior-change programs, because people between 15 and 24 years old make up an estimated 6 to 9% of all HIV infections in Ethiopia (Attawell 2004:3). Risk prevention programming must be designed according to the cultural context of those particular young people (Family Health International 2004, pp.45-46).

## **2.8. Voluntary Counseling and Testing (VCT) Services in Ethiopia**

Ethiopia responded to the HIV/AIDS epidemic as early as 1985. The Federal Ministry of Health (FMOH) and the HIV/AIDS Prevention and Control Office (HAPCO) developed an HIV/AIDS

policy, different guidelines and strategic documents to create an environment conducive for the implementation of HIV prevention, care, treatment and support programs. As part of this effort, the first counseling and testing guidelines were published by the FMOH in 1996, the second edition in 2002 and the last, currently in use, in 2007(FMOH, 2007).

Since the national VCT guidelines were published in 2002, new information as well as evidence based best practices have become available to make counseling and testing more effective and accessible, creating a need to revise the existing guidelines to steer counseling and testing services to increase access and improve quality more effectively. This will be achieved by implementing various counseling and testing approaches and service delivery models that can appropriately address facility and human resource related needs while maximizing utilization of existing resources (FMOH, 2007).

The target groups for VCT in the strategic framework for the national response to HIV/AIDS in Ethiopia included all persons who seek HIV test regardless of any previous risky behavior. It was mentioned that special attention will be given to STI clinics, VCT attendees, FP clinics, ANC clinics, Red Cross Blood Banks, Youth facilities, sex partners of HIV infected persons, persons seeking repeated HIV testing and blood donors(MOH, 2001).

Over the last few years, the number of VCT centers and the number of counselor's has increased enormously as a result of efforts made to build the capacity of the institutions. The number of VCT centers recognized by the FMOH has reached 658 in 2005 and has continued to increase. During 2004/05, 41,387 clients got VCT services, while in 2005 the number of clients who received VCT



services rose to 367,006. About 200 laboratory technicians and counselors were trained by HAPCO in 2002/03, while 384 counselors were trained in 2003/04, and 75 Laboratory Technicians and 130 counselors were trained in 2005(HAPCO, 2006).

### **2.9. Knowledge and Attitude towards VCT in Ethiopia**

A study done in Gondar indicated that, the vast majority of the respondents (89.8%) were aware that one could check his/ her HIV status through blood test, and about 98% of respondents felt that VCT services are necessary(Alemu and etal, 2004).

In Jijjiga Town, majority of youth (98.5 %) had heard about VCT and mass media was the most frequently reported source of information, and 92% agreed that VCT is important to know serostatus of a person and 98% appealed to be tested. Government organizations were the most preferred sites for VCT 66.5%, followed by private institutions 29.7% and NGO's 7.9%. Willingness to pay for VCT services among Jijjiga youth was only 33.6%, most youth (74.3 %) preferred confidential VCT methods while 25.7% preferred anonymous VCT Model. Youth preferred hospital and youth-center for HIV testing, and wanted cautious, well-mannered, same sex and age or elder counselors.(Ibid)

Majority of youth in Jijjiga suggested VCT services to be free of charge. Most preferred physicians to be their counselors, and result to be delivered face to face. Regarding the expansion, the youth in Jijjiga Town recommended VCT for HIV to be available on outreach basis at youth-centers (Yimam, 2003).

In a study done in Gondar among high school students, majority of the students had adequate knowledge about HIV/AIDS and VCT while their perception of HIV risk and practice of protected sex is low. Over 82% of respondents approved screening for HIV as a prerequisite for marriage and 97.2% agreed to have a VCT service (Andargieand etal. 2007, pp.179-182).

## **2.10 VCT Utilization**

According to Ethiopia Demography and Health Survey (EDHS) 2005, among both women and men, the proportions ever tested are higher among those under age 30 than among those age 30 and older. Considering marital status, testing rates are highest among never-married women and men who have ever had sex and widowed, divorced and separated men. The highest testing rates are observed among urban residents, particularly Addis Ababa, Harari, and Dire Dawa, those with a secondary or higher education, and those in the highest wealth quintile (CSA, 2006).

A study done in Jijjiga Town in 2003, from those tested youth 90.9% were satisfied with the service provided. The reason for not satisfied with the VCT service were; in clarity of the counseling, lack of privacy, no warm reception, unavailability and no link to care and support, lack of confidentiality and expensiveness of fee. According to the providers report, VCT services in hospital and health center were utilized more by pregnant mothers. Being female, older youth, educated at least to secondary school and being sexually active had statistical significant association with VCT utilization (Yimam, 2003).

In a study done among 15-49 years age group in Harar, intention of having VCT in males was more likely in condom users and females who had no previous sexual contact. Males who had no previous sexual contact and have never been married were more likely to report intention of asking their partner to get VCT than their counterparts. In females, the intention of asking their partner to get VCT was more likely in those who had no previous sexual contact and the never married ones.

Females whose age is greater than 25 years were less likely to intend to ask their partner for VCT as compared to the age group 25 and younger (Mohamed and etal. 2000).

In a study done at Asossa, West Ethiopia, only 3.9% ever had an HIV test in the past from the respondents who had known the availability of VCT service. Never married had negative attitude towards HIV testing (Eshetu, 2004, pp.75-81).

In the Afar study (2002), North Ethiopia, the provision of VCT to married couples and pregnant women was accepted by 76.3% of the respondents. Among adult respondents, those in primary education were less likely to will for VCT as compared to secondary and above. Among out of school youth, being female and being Christian were positively associated willingness to take VCT services. Adequate knowledge of the preventive methods and transmission of HIV among out of school youths were positive predictors of willingness for VCT services. Adequate knowledge on preventive methods of HIV, history of previous marriage and shorter duration of stay among female sex workers were positive predictors of willingness for VCT (*Assefa, 2002*).

In a study done in South and North Gondar, 82% of respondents were willing to accept VCT services. The age range 15-19 years and availability of ART were found to be positively associated VCT acceptance. The majorities (74%) of the respondents were willing to pay for VCT services (*Admassu2006, pp.24-31*).

Ethiopia has high prevalence of HIV and the commonest mode of transmission is heterosexual, with the highest infection rates concentrated in aged 15–24 years in urban areas. Voluntary Counseling and Testing has been recognized as an effective and pivotal strategy by nations in general and considered as one of the essential prevention interventions to curb the HIV/AIDS pandemic.

An understanding of factors that lead sexually active people especially youth to accept HIV testing is essential to the success of VCT program and to improve use of service to facilitate HIV prevention effort in the country in general and in Gelemso town in particular. Therefore, this study was conducted to assess factor contributing to VCT service utilization among youth, which can be helpful in designing and implementing possible interventions.

## **2.11 Factors Inhibiting VCT Uptake**

### **2.11.1 Stigma and Discrimination**

The stigma and discrimination associated with HIV/AIDS have powerful psychological consequences for how people with HIV/AIDS come to see themselves, leading in some cases to depression, lack of self-worth and despair (UNAIDS 2002). Furthermore, stigma has been found to be the main obstacle in combating HIV/AIDS in the whole world (UNAIDS, 2002). Stigma and discrimination can also undermine prevention by making people afraid to find out whether or not they are infected, for fear of the reactions of others. In addition, fear of stigma and discrimination is known to discourage individuals from being tested for HIV and from disclosing their sero-positive status to sexual partners, family and friends (Weinhardt et al., 1999). Stigma and discrimination may also cause those at risk of HIV infection and some of those infected to continue practicing unsafe sex because they do not want to raise suspicion about their HIV positive status (UNAIDS, 2002).

### **2.11.2 Accessibility of VCT Services**

Accessibility has been found to limit VCT uptake in some places especially in the rural areas. Consequently, Kipitu (2005) noted that in studies done in Kenya, Tanzania, and Zimbabwe around 60% of adults wanted to know their HIV status, however, only 15% or less had access to VCT.

Hankins (2000) also observed that the acceptability of VCT by pregnant women in the developing countries has increased to 69%, however, the main obstacle in the poorest settings is inaccessibility which restricts many HIV positive women from making informed decisions about their HIV status, such as, termination of pregnancy or taking of antiretroviral prophylaxis to reduce transmission of HIV to their babies. Besides cultural and social barriers continue to be ignored and poorly understood in resource poor countries, such as India where VCT centers have been recently established primarily in urban settings (Rogers et al., 2006).

### **2.11.3 Fear of Abuse**

Studies have shown that fear of their male partners' violent reaction is a serious barrier to women's disclosure of positive test results (Boswell and Bagalley, 2002). The authors further reported that in a qualitative study conducted in Dares Salaam, Tanzania, and young HIV positive women were more likely to report partner violence than young HIV negative women. Furthermore, in Zambia it was thought to be shameful for a woman to have HIV (UNAIDS, 2000) and these women often experience violence from their partners. Research from the Positive Women's Network in India indicated that HIV infection often leads to emotional abuse and stigma within the home and community (PWN+, 2004). Moreover, studies have reported that women are often accused of infidelity or forced from their home as a result of testing positive (Nath, 1997).

### **2.11.4 Disclosure of HIV Status**

Studies show that HIV related stigma and discrimination are associated with not disclosing HIV status to sex partners, and non-disclosure is closely associated with HIV risk behaviors. In a study conducted in Cape Town in South Africa it was found that 42% of participants did not disclose their

HIV status to the people they had sex with (Simbayi et al., 2007). Furthermore, it was also found that participants who had not disclosed their HIV status to their sex partners were likely to have multiple sex partners, HIV negative partners, or partners of unknown HIV status (Simbayi et al., 2007).

Furthermore, it was found that not disclosing their HIV status to partners was also associated with other people having lost a job or a place to stay because of disclosing their HIV positive status (Simbayi et al., 2007).

In Baltimore, Rothenberg et al. (1995) found that among a sample of 136 health care providers serving HIV-infected women, 24% of providers had at least one female patient who experienced physical abuse after disclosing their HIV status to their partner. Similarly, in Kenya, among the women who disclosed their HIV status to their partners, some were chased out of their homes, while some were beaten (Temmerman et al., 1995; Gaillard et al., 2002). In Tanzania after disclosure of their positive results some HIV positive women said that their partner blamed them while others were abandoned by their partners (Maman et al., 2001). Women's barriers to HIV testing and positive status disclosure reflect the unequal and limited power that many women have to control their risk for infection (Maman et al., 2001). However, in some studies most VCT clients reported positive experiences with disclosure of their HIV status (USAID, 2003).

#### **2.11.5 Lack of Confidentiality**

Confidentiality is an important factor that may hinder utilization of VCT services. Before taking the HIV test people want to be assured of confidentiality. In South Africa, Njagi and Maharaj (2006) found that respondents felt that there was no privacy at the VCT facility especially in the waiting

room since people could hear what was said when people were making appointments to go for VCT. Lack of confidentiality of test results was highlighted as the main barrier for not taking the HIV test among pregnant woman attending antenatal clinic in Eastern Cape, South Africa (Peltzer et al., 2007). A study in rural southern India found that although the majority of pregnant women were willing to go for VCT and would seek medical interventions to prevent MTCT of HIV if they were detected to have HIV, most were concerned about the confidentiality of their results (Rogers et al., 2006).

In a study on the acceptability of VCT among Nigerian women attending antenatal clinics, Ekanem and Gbadegesin (2004) found that confidentiality was the major concern in undertaking the HIV test and most of the respondents would not want to undergo testing if results would be made available to their employers.

In rural Uganda all women were willing to take an HIV test during pregnancy, and to reveal their HIV status to maternity staff, however, they were anxious about confidentiality and feared rejection during delivery if their status was known (Pool et al., 2001). As such, the success of VCT in reaching women depends on utilization, trusting health services and empowering women to seek and access VCT services (Desai, 2005).

In South Africa, less trust in the health care system or fearing a breach of confidentiality and a lack of follow-up support after diagnosis was mentioned as the barriers for undertaking VCT (Van Dyk

and van Dyk, 2003). In rural Uganda participants favored VCT services and counselors were seen as competent but participants argued that they preferred counselors from a different community (Kipp et al., 2002). This shows that even though many people still regard counselors as efficient and competent there is still mistrust when it comes to confidentiality. People prefer counselors from a different community because they believe that they will not judge them or reveal their HIV status to other people.

#### **2.11.6 Fear of HIV Results**

Some people associate being HIV positive as a death sentence therefore the fear of getting positive results may prevent them from going for VCT. According to Pool et al. (2001), in Uganda women feared HIV positive test result due to the rumor that medical staffs were killing HIV positive people in order to reduce the HIV prevalence.

In a study done in South Africa, Njagi and Maharaj (2006) found that the majority of respondents did not go for VCT because of fear of a positive result. In Tanzania, 52% of women attending VCT did not disclose their HIV positive status because of fear of their partner's reaction (Maman et al., 2001).

In the study among mineworkers in South Africa, fears of being HIV positive, as well as concerns of colleagues' reactions were the most frequent responses for not testing for HIV/AIDS (Day et al., 2003). A study on the barriers to preventing HIV transmission from mother-to-child in the Eastern Cape, found that most pregnant women (92.4%) indicated that they have never had an HIV test because of fear of HIV positive results (Peltzer et al., 2007). In Ghana, the reason given by



participants for being unwilling to get tested was fear of positive results (Holmes et al., 2008). Fear of testing HIV positive has exacerbated lack of utilization of VCT service. However, people still need to be taught the importance of knowing one's status because the perceived benefit of VCT far outweighs the fear of testing positive.

## **2.12 Factors Facilitating VCT Uptake**

### **2.12.1 Desire to know one's HIV Status**

The major factors that would encourage women to go for VCT was being provided with HIV/AIDS information, wanting to know their HIV status and concern for the transmission of HIV from mother-to-child (Peltzer et al., 2007). In the study among university students in Durban, Njagi and Maharaj (2006) found that the desire to know one's status was the main reason for students seeking VCT services. The availability of ART has played a big role in increasing demand for VCT. In Haiti, people at first were not interested in VCT as they believed that it did not treat people however, after the introduction of ART, there was a 300% increase in VCT. (Milosevich, 2005)

Furthermore, the study observed that the introduction of AZT has led to a 90% increase in VCT rates among pregnant women in Haiti. According to Ekanem and Gbadegesin (2004) several studies have shown that those who knew about zidovudine (ZDV) therapy for pregnant women were more likely to have had an HIV test than those without such knowledge. In addition, researchers found that 20% of young people who undertook VCT in Kenya and Uganda reported that they were not sexually active but were simply seeking access to information (Boswell and Baggaley, 2002).

### **2.12.2 Perceived at Risk of HIV/AIDS**

There are many different factors that may influence utilization of VCT services. Women with HIV are more likely to go for testing than HIV negative women as positive women are likely to get sick or lose weight and therefore feel compelled to go for the test (Sherr et al., 2007). However, in

general, those who were at elevated risk through their sexual behavior, sexual networks, relationship status or condom use, were failing to access VCT (Sherr et al., 2007). Low perceived risk behavior is also another factor that influences the decision not to go for VCT. In their study among college students in Kwazulu-Natal, Njagi and Maharaj (2006) found that respondent did not utilize VCT services because they felt that they were not at risk of contracting HIV mainly because they were not currently sexually active, consistently used condom or never had sex.

Studies suggest that marriage is not a safe haven against the risk of HIV infection especially for girls who marry at young ages. Bruce and Clark (2003) argue that girls who married before the age of 18 are more at risk due to unprotected sexual exposure, which is often with older partners who, by virtue of their ages, have an elevated risk of being HIV positive. Furthermore, Bruce and Clark (2003) argued that in Uganda there is an increase in VCT uptake among couples who are about to get married and the desire for young girls to go for VCT increases if they are to get married.

Similarly, in Uganda the majority of people accepted VCT because they were planning to get married (27%) or because of a new relationship (84%), while some (35%) tested in order to plan for the future (Muller et al., 1992). The Kara Clinic in Zambia, for instance, reported an increase in number of youth seeking VCT before getting married or getting involved in a new relationship (McCauley, 2004).

### **2.12.3 Influence from Others**

Studies suggest that influence from spouse, peers and family is a major factor impacting on the decision to go for VCT. In South Africa it was found that peer influence among university students

was the motivating factor for others to attend VCT services (Njagi and Maharaj, 2006). Furthermore, studies done in other African countries have mentioned that recreational centers that have VCT facilities were also encouraging more young people to go for VCT. In the study conducted in Tanzania participants highlighted the importance of family, friends, peers and priests in encouraging HIV testing and disclosure of positive results (Maman et al., 2001). In Zambia, peer influence on VCT uptake was cited as a major contributing factor in increasing VCT uptake in youth centers in Zambia (Obarzaucher and Baggaley, 2002).

#### **2.12.4 Couple Counseling**

VCT for couples is a particularly powerful HIV prevention tool (Painter, 2001). Couple counseling and testing of HIV has been highlighted as reducing stigma and the fear of disclosing positive results to other partners. Disclosure has a number of important public health benefits, such as increasing social support for people who are sero-positive and reducing partner infection. Hence, in the community survey on VCT in Nakuru, Kenya the majority of respondents preferred couple testing (Irungu et al., 2008). In two antenatal clinics in Lusaka, Zambia, it was found that couple counseled women were more likely to accept HIV testing than women counseled alone (Semrau et al., 2005).

Furthermore, studies have shown that the change in risk behavior is particularly great for couples who know their HIV sero-status as they are able to make informed reproductive health choices together (Hope, 2004). In Tanzania the sero-concordant HIV negative couples encouraged couple counseling by indicating that VCT may be an important strategy to encourage negative couples to maintain their negative HIV status (Maman et al., 2001). Moreover, focus group discussion among

people living with HIV in Nairobi Kenya revealed that many people are afraid to disclose their HIV status and they may opt for church pastors as common targets for disclosure (Miller and Rubin, 2007). This shows that people still fear disclosing their HIV status to their partners therefore couple counseling has the potential of reducing the stress and the hassle of disclosing HIV positive results to partners.

### **3. METHODOLOGY**

#### **3.1 Design**

A descriptive cross- sectional study design together with Quantitative method was employed in this study to assess factors contributing VCT utilization by adolescent high school students in Gelemso town, Ethiopia. The quantitative research approach was considered to be appropriate for this study

because it allows a formal and systematic approach to collect information on factors contributing VCT utilization by adolescent high school students in Gelemso town. Students of Gelemso high school were taken as study population. All the students who were volunteered to participate in the survey were included. The sample size was determined using the single population proportion formula. The response rate was 100%.

### **3.2 Universe of the Study**

The target population for the study was students from Gelemso high school. Gelemso is one of fourteen districts found in Western Harerghe. Gelemso High school, being the only high school in the town, currently, there are 2231 students (1541 males and 690 females) in the Gelemso district. It was chosen because especially youth living in Gelemso are involved in risky behaviors like eating 'chat'. However due emphasis has not been given to assess factors associated with the utilization VCT service among youth in the area.

### **3.3 Study Population**

A study population is an aggregate of elements sharing some common set of criteria (Burns & Grove 2001:366). The population is described in terms of the target population, inclusion criteria, and sampling method. The sample in this study are all senior secondary high school students in Gelemso, aged from 15–19 years and enrolled in grades 9–10 for the 2005 E.C academic year.

'Chat' is green-leafed mildly narcotic plant that has been chewed and enjoyed socially for centuries by people of Horn of Africa.

### **3.4 Inclusion criteria**

Inclusion criteria will be set of conditions that must be met for a respondent to be included in the sample (Polit & Beck 2004:290). Determining the criteria is essential for the delineation of the study sample (Polit & Beck 2004:290). The inclusion criteria for the research respondents will be the

following: Daytime high school students attending senior secondary high school (grades 9–10); aged 15–18 years because this age group's knowledge and attitudes are believed to be under continuous change (Griesel-Roux 2004:51).

### **3.5 Sample Size**

Using a 95% confidence level of certainty ( $\alpha = 0.05$ ) as an assumption, the computed actual sample size the study will use one sample proportion formula as indicated below (Joubert& Ehrlich 2007:347). Eighty percent was the expected power ( $1-\beta$ ) for the study because it could allow good generalization and since this level is the probability that a test will produce a significant difference at a given significance level if there is in fact a difference (Joubert& Ehrlich 2007:346):

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

$$n = \frac{(1.96)^2 (0.093 * 0.907)}{(0.03)^2} = 360 \quad [\text{Eqn 1}]$$

Adding 5% non-response rate

Total sample size = 360 + 18 = 378 respondents

Where:

- $n$  = the required minimum sample size
- level of confidence 95%, which gives the percentile of normal distribution,  $Z_{\alpha/2} = 1.96$
- $d$  (margin of error) = 0.03
- $p$  = proportion of being tested = 0.093
- $1-p$  = proportion of not being tested = 0.907
- Estimated non-response rate in school youth = 5%

Based on the above assumptions, a total of 378 students were required for the study.

### 3.6 Sampling Procedures

A two-stage sampling method was used to select study participants from the high school. The school consisted of grades 9, 10, and sections in each grade were labeled as A, B, C, D, and E. The number of study subjects from each grade was allocated proportionally to the size of the respective classes. Then sections to be included in each grade were selected based on simple random sampling method. Students from the selected sections were chosen using systematic random sampling method. The selected students was assembled in a room and then provided with self-administered

questionnaire that was filled out in the same room. Data that was collected from students of both genders from each school using proportional sampling. According to Van Dalen (1999:23), proportional sampling provides the researcher with a way of achieving greater representativeness in the sample of the population.

### **3.7 Data Collection**

The respondents completed pre-developed, structured, self-administered questionnaires used for data collection. The questionnaires was pre-tested using the same procedure and with a similar target group. The respondents that were involved in pre-testing did not participate in the actual study. The pre-test findings showed that the questionnaires on the whole are well developed. What is more, the researcher visited the selected schools, and explained the process to the respondents. All information was collected anonymously and, to ensure the anonymity of the responses, there were no personal identification of the respondents.

### **3.8 Data Collection Procedure**

After selection of the respondents by random sampling, respondents were given a consent form to sign. Once completed, these were placed in a box provided by the researcher and the box was sealed. In order to preserve anonymity, the consent form was not attached to the questionnaires. Additional boxes were provided for questionnaires for each grade. The principal investigator handed the questionnaires to the respondents after a thorough explanation and after informed



consent was obtained. The respondents then filled in the questionnaires and dropped them into the box provided.

The following steps were taken to ensure the reliability of these research instruments:

- The purpose of the study was explained to the respondents in order to obtain their cooperation and participation in the study.
- The researcher was available throughout the data collection process to answer and explain any aspects of the instruments that might have been unclear.
- Questions were made clear. (No medical terms will be used in order to enable respondents to understand what the researcher needed.)

### **3.9 Data Entry and Analysis**

The principal investigator manually checked the questionnaires to ensure that each one had been answered in full. The questionnaires were then coded and the data were entered and processed by using the Statistical Package for Social Sciences (SPSS) for Windows, Version 17. Frequency and percentage were used to analyze the collected data and the results were illustrated in the form of frequency tables and depicted graphically in order to provide an overview of the findings.

### **3.10 Research Instrument**

The researcher developed a structured questionnaire with mostly closed-ended questions. The questionnaire were structured to gather Socio- demographic characteristics of respondents, Knowledge about HIV and AIDS transmission prevention, Sexual behavior and perception of personal risk, Information regarding VCT and factors inhibiting /facilitating utilization, Preferences of VCT centers, models, counselor and ways of getting VCT result.

#### **4. RESULTS**

##### **Introduction**

The respondents who participated in this study were 15 to 19 years old youths. This age group was chosen because young people, aged 10 to 24, account for over 50% of all HIV infections occurring worldwide. Adolescents are particularly vulnerable to HIV because of the strong

influence of peer pressure and the development of their sexual and social identities, which often leads to experimentation (FMOH and HAPCO 2007, pp.15–16).

The findings from the study are presented according to the sequence in the questionnaire and are presented according to the following sub-headings: Socio- demographic characteristics of respondents, Knowledge about HIV and AIDS transmission prevention, Sexual behavior and perception of personal risk, knowledge of VCT and factors inhibiting //facilitating utilization, Preferences of VCT centers, models, counselor and ways of getting result. Tables, charts, figures and descriptions are used to present the findings.

#### **4.1 Socio- Demographic Characteristics of Respondents**

378 adolescents between 15 and 19 years of age in school youths completed the self-administered questionnaires making a 100% response rate. The study population was 230(60.84%) male and 148(39.15%) female. As regards to religion of the respondents more than half of the respondents were Muslims 282(74.60%) followed by Christian 70(18.51%) and the rest 26(6.87%) of respondents religion were identified as others. What is more, about 311(82.27%) of respondents were singles, 54(14.28%) of them were married and the remaining 13(3.43%) of them were divorced.

More than half of the respondents 285(75.39%) belonged to Oromo ethnic group, 78(20.63%) of them belonged to Amhara, 11(2.91%) belonged to Somali and the remaining 4 (1.05%) belonged to Harari ethnic group. Pertaining to their grade level, out of the total 378 respondents, 203(53.70%) of in school youth were in 10th grade and the remaining 175(46.29%) of them were in 9th grade.

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**Table 1: percentage distribution of respondents by background Characteristics**

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<b>Age Group</b>	<b>Frequency</b>	<b>%</b>
15	37	9.79
16	92	24.33
17	109	28.83
18	91	24.07
19	49	12.96
<b>Gender</b>		
Male	230	60.84
Female	148	39.15
<b>Grade of respondents</b>		
9	175	46.29
10	203	53.70
<b>Religion of respondents</b>		
Christian	70	18.51
Muslim	282	74.60
Others	26	6.87

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<b>Marital Status</b>	<b>Frequency</b>	<b>%</b>
Single	311	82.27
Married	54	14.28
Divorced	13	3.43
<b>Ethnicity</b>		
Oromo	285	75.39

Amhara	78	20.63
Somali	11	2.91
Harari	4	1.05

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## 4.2 Knowledge about HIV and AIDS Transmission Prevention

### 4.2.1 Modes of HIV Transmission

The modes of HIV transmission mentioned by students were unprotected sexual intercourse with HIV positive individuals, infected mother-to-child transmission during delivery Breast feeding, sharing sharp materials with HIV positive individuals and contaminated blood contact.

Out of the five modes of HIV transmission 51.32% of respondents (n=194) mentioned knowledge of three; whereas, 25.66% (n=97) mentioned knowledge of two modes of transmission. On the other hand, 5.55% (n=21), 10.58% (n=40) and 6.87% (n=26) mentioned knowledge of one, four and all the five modes of HIV transmission respectively.

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**Table 2: Percentage distribution of respondents by knowledge about modes HIV and AIDS Transmission**

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How many modes of HIV transmission do you know?	Frequency	Percentage
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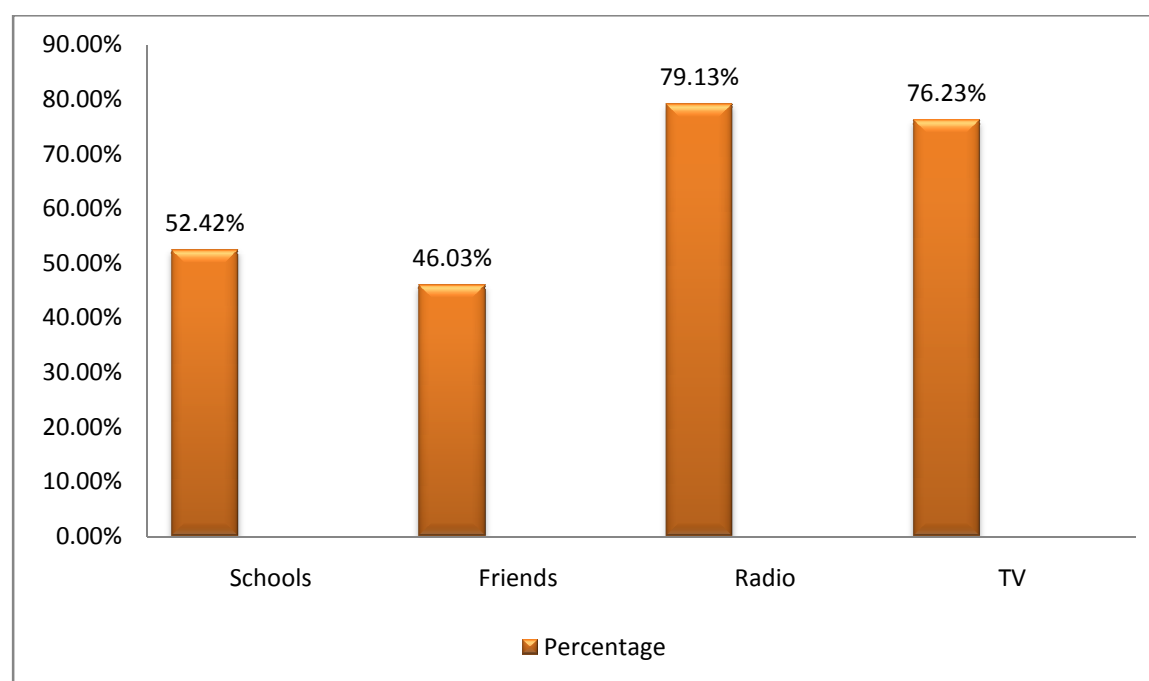
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<b>One</b>	21	5.55
<b>Two</b>	97	25.66
<b>Three</b>	194	51.32
<b>Four</b>	40	10.58
<b>Five</b>	26	6.87
<b>Total</b>	<b>378</b>	<b>100.00</b>

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#### 4.2.2 Sources of HIV and AIDS information

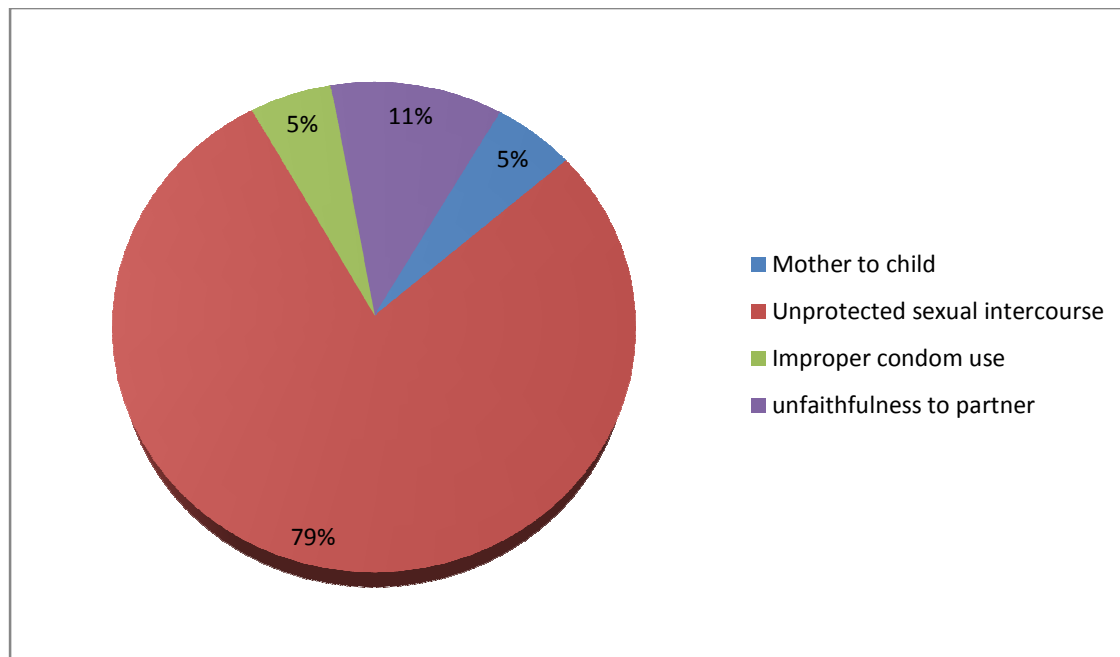
The Respondents obtain information about HIV transmission from different sources. Accordingly, the respondents' sources of information mentioned were schools, friends, radio and TV. The largest part of the respondents mentioned more than one source.



**Figure1. Sources of information (N=378)**

#### 4.2.3. The Most Common Cause of HIV Infection in Ethiopia

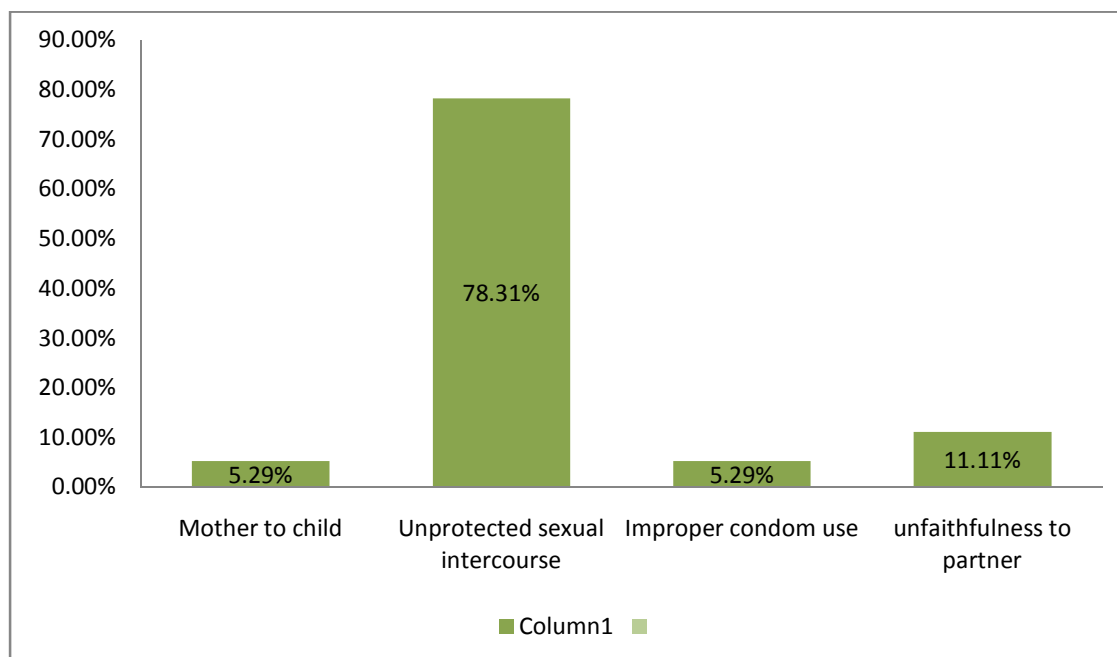
The most common causes of HIV infection identified by majority of respondents (78.31%; n=296) were unprotected sexual intercourse. The following figure clearly depicted this fact.



**Figure 2. Common causes of HIV infection (N=378)**

#### 4.2.4 List of the HIV Prevention Methods that Respondent Knew

As illustrated in figure 3 below, respondents listed the following prevention methods: condom use during sexual intercourse, abstinence from sexual intercourse before marriage, faithfulness to a single uninfected partner, avoiding the sharing of sharp materials, avoiding blood contact from infected persons, and prevention of mother-to-child transmission. Respondents listed multiple responses.



**Figure 3: List of the HIV prevention methods that respondents knew**

#### **4.2.5 Most Relevant Prevention Methods for Young People**

Adolescents identified condom use, abstinence, faithfulness, avoiding sharing sharp materials and blood contact as most relevant prevention methods. Among prevention methods identified, 39.94% (n=152) identified condom as most relevant methods, whereas, 34.12% (n=129) and 20.89 % (n=79) of them identified abstinence from sexual intercourse and faithfulness as most relevant prevention methods respectively. The following table illustrates this.



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**Table 3: Most relevant prevention methods proposed by respondents**

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<b>Which prevention method do you think most relevant for young people?</b>	<b>Frequency</b>	<b>Percentage</b>
Condom use	151	39.94
Abstinence	129	34.12
Faithfulness	79	20.89
Avoid sharp material sharing	10	2.64
Avoid blood contact	9	2.38

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#### **4.3 Sexual Behavior and Perception of Personal Risk**

Out of the 378 respondents, 61.11 % (n=231) reported they had sexual activity while 38.88 % (n=147) reported they never had sexual activity. Correspondingly, 70.12 % (n=162) of the total respondents had initiated sexual intercourse between 17-19 years of age and 29.87 % (n=69) out of total respondents reported practicing sexual intercourse between the 15-16 years of age.

As indicated on Table 4 out of 311 unmarried/single youth, 53.05% (n=165) had boy/girlfriend. And of these participants who had boy/girlfriend, 67.27% (n=111) of them started sexual intercourse with their boy/girlfriend, while 32.72% (n=54) were not. Concerning their action to prevent HIV, of those who started sexual intercourse with their boy/girlfriend, 58.16% (n=57) reported that used condom while 41.83% reported as they did not use condom.

As regards to pattern of condom utilization, 57.89% (n=33) of respondents reported they always use condom while 42.10% (n=24) respondents reported that they use condom sometimes. The principal reason stated by participants who had no sexual intercourse experience with their boy/girlfriend was not to have sex before marriage which constituted 33.33% (n=18) followed by to prevent pregnancy that constituted 25.92% (n=14) and no sex before HIV testing which constituted 22.22% (n=12).

As per Table 4, of the total Participants, regarding their attitude towards perceiving themselves as susceptible to HIV infection was asked and the result indicated that only 14.81% (n=56) respondents replied that they have a chance of acquiring HIV while 85.18% (n=322) respondents replied they don't think they have a chance of acquiring HIV.

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**Table 4: Sexual behavior and perception of personal risk**

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<b>Ever had sex</b>	<b>N</b>	<b>%</b>
Yes	231	61.11
No	147	38.88
<b>Age of sexual initiation (n=231)</b>		
15-16 years	69	29.87
17-19 years	162	70.12
<b>Sexual intercourse in the past oneyear((n=231)</b>		
Yes	98	42.42
No	133	57.57
<b>Condom utilization in the past one year (n=98)</b>		
Yes	57	58.16
No	41	41.83
<b>Pattern Time of condom utilization (n=57)</b>		
Always	33	57.89
Sometimes	24	42.10
<b>Have boy/girlfriend (n=311)</b>		
Yes	165	53.05
No	146	46.94

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<b>Had sex with boy/girl friend</b>	<b>Frequency</b>	<b>%</b>
<b>(n=165)</b>		
Yes	111	67.27
No	54	32.72
<b>Reason for no sex with boy/girl friend (n=54)</b>		
No sex before marriage	18	33.33
No sex before testing	12	22.22
Prevent pregnancy	14	25.92
Other	-	-
<b>Risk perception (n=378)</b>		
Yes	56	14.81
No	322	85.18

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#### **4.4 Knowledge of VCT and Factors Inhibiting /Facilitating its Utilization**

When the participants were asked regarding information on VCT and its importance 5.82 % (n=22) reported that they did not have any information about VCT. The majority of respondents 94.17% (n=356) have heard about VCT. Mass media was cited more frequently as source of information 55.33(n=197) followed by health institutions 36.51 % (n=130) and anti-AIDS clubs 6.17% (n=22) and others 4.77 % (n=17). All respondents who heard of VCT agreed that VCT is important, and stated the reason to know self-59.26 % (n=211) that is followed by to plan for future life 15.16 % (n=54) and 14.88% (n=53) reported for self-care while 10.67% (n=38) reported as others.

Regarding questions pertaining to who benefitted from VCT, majority of respondents 51.12 % (n=182) reported that youths benefit while 15.16% (n=54) reported people undergo for marriage benefit from VCT. And 14.88 % (n=53), of respondents reported that suspected peoples benefit from VCT while 10.67 % (n=38) reported that pregnant mothers benefit from it. In addition to this, 4.77 % (n=17) of respondents and 3.37 % (n=12) of respondents reported as everybody and Health worker benefitted from undergoing VCT respectively. What is more, while respondents were asked whether they had VCT, the majority of youths 74.43 % (n=265) reported that they haven't had VCT whereas 25.56 % (n=91) reported that they had VCT before.

In the same way, when respondents were asked about factors for inhibiting VCT utilization of youths, the majority of the respondents 58.86 % (n=156) reported accessibility of VCT Services which is followed by stigma and discrimination that constituted 20.37 % (n=54). Besides, 8.30 % (n=22) of respondents reported that don't know about the service while, fear of

HIV results that 5.28 % ( n=14) of respondents also stated by respondents. Likewise, 4.90 % ( n=13) of respondents reported that lack of confidentiality is inhibiting factor however, 2.26 % ( n=6) of respondents reported as disclosure of HIV Status.

With regard to questions related to factors facilitating VCT utilization of youths respondents who had VCT stated principally 71.42 % ( n=65) as desire to know one's HIV status is major facilitating factor. While 10.98% of the respondents reported marriage and VCT facilitated VCT utilization which is followed by perceived at risk of HIV/AIDS that constituted 9.89% (n=9). Still 4.39 % (n=4) of respondents reported that acceptability of VCT of HIV and 3.29% (n=3) of respondents as influence from Others. When all respondents were asked about their desire to have VCT in the future, the majority 97.35 % ( n=368) said yes and 2.64 % ( n=10) of respondents said no.

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**Table 5: Knowledge of VCT and factors Inhibiting/Facilitating its Utilization**

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<b>Heard of VCT</b>	<b>N</b>	<b>%</b>
Yes	356	94.17
No	22	5.82
<b>Source of information (n=356)</b>		
Mass media	197	55.33
Health institution	130	36.51
Anti-AIDS clubs	22	6.17
Peer friends	12	3.37
Others	17	4.77
<b>Importance of VCT (n=356)</b>		
To know self	211	59.26
To plan for future life	54	15.16
Self-care	53	14.88
Other	38	10.67
<b>Who benefited from VCT (n=356)</b>		
Youth	182	51.12
People undergo for marriage	54	15.16
Suspected people	53	14.88
Pregnant mother	38	10.67
Everybody	12	3.37
Health worker	17	4.77
<b>Had VCT before (n=356)</b>		
Yes	91	25.56
No	265	74.43

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<b>Factors for inhibiting VCT utilization of</b>	<b>N</b>	<b>%</b>
<b>Youths(n=256)</b>		
Accessibility of VCT Services	54	20.37
Stigma and Discrimination	6	2.26
Disclosure of HIV Status	13	4.90
Lack of Confidentiality	14	5.28
Fear of HIV Results	22	8.30
Don't know about the service	156	58.86
<b>Factors facilitating VCT utilization of</b>		
<b>youths(n=91)</b>		
Desire to Know One's HIV Status	65	71.42
Perceived at Risk of HIV/AIDS	9	9.89
Acceptability of VCT of HIV	4	4.39
Marriage and VCT	10	10.98
Influence from Others	3	3.29
<b>Willingness to have VCT (n=378)</b>		
Yes	368	97.35
No	10	2.64

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#### **4.5 Preferences of VCT Centers, Models, Counselor and Ways of Getting VCT Result**

According to table 6, out of the total subjects, 97.35% (n=368) that have a desire to be tested in the future, 75.39% (n=285) preferred HIV testing to be given in Government health institution, followed by Family Guidance Association Ethiopia (FGAE) 13.22% (n=50) while 7.67% (n=29) and 3.70% (n=14) preferred others and private health institution respectively.



As regards convenient time for VCT service delivery, 53.93 % ( n=192) youth preferred weekends, 23.59 % ( n=84) of respondents preferred after working hours whereas 22.47 % ( n=80) reported convenient time as usual working hours. When youth were asked about their willingness to pay a reasonable fee for VCT service, 60.95 % ( n=217) youth were willing to pay for VCT service. Among youth who were willing to pay the fee, 67.74 % ( n=147) reported that 1-5 Birr is a reasonable fee, followed by 6-10 Birr 29.49 % ( n= 64) and whereas 2.76 % ( n=6) reported to pay greater than 10 Birr.

Similarly when participants were asked about their preferred models of VCT, counselor's qualification and ways of getting VCT test result, majority 71.91 % ( n=256) preferred confidential testing followed by anonymous 172 (28.0%). Regarding preference of youth VCT providers 61.51 % ( n=219) preferred peer counselors whereas 38.48 % ( n=137) of respondents preferred health professionals. Concerning preference of ways of receiving HIV test result majority preferred face- to- face 80.89 % ( n=288) followed by secretive letter 18.25 % ( n=65) where as 0.84% of respondents reported as they prefer partner.

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**Table 6: Preferences of VCT centers, models, counselor and ways of getting result**

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<b>Preferred health institution( n=378)</b>	<b>Frequency</b>	<b>%</b>
Government	285	75.39
FGAE	50	13.22
Private	14	3.70
Other	29	7.67
Don't know		
<b>Convenient time for VCT service( n=356)</b>		
Weekends	192	53.93
Usual working hours	80	22.47
After working hours	84	23.59
Other		
<b>Willingness to pay for VCT service( n=356)</b>		
Yes	217	60.95
No	139	39.04
<b>Payment for VCT service(n=217)</b>		
1-5 Birr	147	67.74
6-10 Birr	64	29.49
≥ 11 Birr	6	2.76
<b>VCT Model ( n=356)</b>		
Confidential	256	71.91
Anonymous	100	28.08
<b>Counselor Qualification ( n=356)</b>		
Peer counselor	219	61.51
Health professionals	137	38.48
HIV positive people	-	-
Any counselor	-	-
Other	-	-

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<b>Ways of getting HIV test result ( n=356)</b>	<b>Frequency</b>	<b>%</b>
Face to face	288	80.89
Secretive letter	65	18.25
Partner	3	0.84
Relative		
Other		

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## **5. DISCUSSIONS**

### **5.1 Introduction**

This chapter presents a discussion based on the major findings presented in chapter 4. Findings that are discussed include Socio- demographic characteristics of respondents, Knowledge about HIV and AIDS transmission prevention, Sexual behavior and perception of personal risk, VCT and factors inhibiting //facilitating utilization, Preferences of VCT centers, models, counselor and ways of getting VCT result.

### **5.2 Socio Demographic Data**

The respondents who participated in this study were 15 to 19 year old. This age group was chosen because young people aged 10 to 24 accounts for over 50% of all HIV infections occurring worldwide. Adolescents are particularly vulnerable to HIV because of the strong influence of peer pressure and the development of their sexual and social identities, which often leads to experimentation. Adolescents should be counseled to delay their sexual debut and practice abstinence (FMOH and Federal HAPCO 2007, pp.15-16).

In 2006, the populations mostly affected by HIV in Ethiopia were those between the ages of 15-24 years. Of these, the majority of them were adolescents. There was a 5.6% prevalence rate of HIV infection among the group (FMOH and National HAPCO 2006:10). This indicates that age is an important demographic factor that should be given due attention in designing important prevention interventions for HIV infection.

### **5.3 Knowledge about HIV and AIDS Transmission**

According to the findings from the study, the respondents knew the modes of HIV transmission. Unprotected sex with HIV infected individuals was the most common mode of HIV transmission cited by the respondents. This finding also emerged in the 2005 Ethiopian Demographic Health Survey among the youths (Central Statistical Agency 2006:209). Thus to prevent HIV transmission, it is important that young people practice safe sex through the much advocated ABC methods (abstinence, being faithful to one uninfected partner, and condom use) (Central Statistical Agency 2006:209). Knowledge of HIV transmission modes is particularly important for adolescents, since adolescents are greatly threatened by the HIV pandemic and understanding how to prevent HIV transmission is the first step to avoid infection (United Nations 2010b:41).

The finding converges with UNAIDS report which stated that in Sub-Saharan Africa the high prevalence of HIV infection is due to heterosexual intercourse as the main mode of transmission. This region contains almost two-thirds of all young people living with HIV, 61% of who are female (UNAIDS/WHO 2007:8). Therefore, educating adolescents about HIV transmission is important because it provides adolescents with the skills that are necessary; knowledge and understanding of sexual risks as well as providing a source of peer support and social capital.

The respondents cited both radio and television as their main sources of information for VCT services and HIV and AIDS in general. The studies of Abiy 2006 and Mwandira 2008 done among adolescents also mentioned television and radio as the primary sources of information for adolescents.

The study findings also show that adolescents are well informed about the methods of preventing HIV infection. However, a knowledge gap was identified among a significant number of respondents, where 32% (n=118) knew one or two methods of HIV infection. This may prevent adolescents from making a well-informed analysis of their situation and prevent them from finding ways out of exploitative situations. Thus, improving adolescents' knowledge on HIV transmission prevention methods has particular importance (Adolescent Development and Participation Unit Program Division 2006:19).

The respondents of this study knew some of the uses mentioned in the VCT toolkit. The VCT toolkit is an information box designed as an educational tool. The VCT toolkit categorizes the benefits of knowing VCT at two levels: individual and community. At the individual level, knowledge of VCT creates a more realistic self-perception of a client's vulnerability to HIV, promotes or maintains behaviors to prevent acquisition or further transmission of HIV, alleviates anxiety, and facilitates understanding and coping, facilitates prevention of mother-to-child transmission of HIV, helps client to plan and make information choices for future and leads to early referral to specific clinical care, treatment and support (USAID/Family Health International 2004:3). At the community level, VCT creates peer educators; mobilizes support for appropriate responses; reduces denial, stigma and discrimination; and normalizes HIV and AIDS because of a clear and open communication (USAID/Family Health International 2004:3). Thus public health administration and other concerned bodies should work to make students more knowledgeable about VCT.

#### **5.4 Discussion on Sexual Behavior and Perception of Personal Risk**

In this study, 61% of the participating youth admitted having sexual experience. Regarding the age of the initiation of sex 70.12% of youths reported as they initiated sex. This figure is low compared to other studies in USA and Canada, which were 46-72% and 24-72% for boys and girls, respectively (Boyer and Keagles 1991:11-23). However, it was higher compared to the BSS report where 9.9% (14.6% males and 5.3% females) reported premarital sexual experience (MOH and HAPCO, 2005).

According to the findings from the study 58.16% of respondents used condom during sexual intercourse whereas 41.83% reported that they did not use condom in their sexual practice. According to the findings from DHS of Ethiopia, condom use was extremely low among the adolescent (DHS, 2000).

Other studies by Mensah, et al. (1998) and De Klerk, et al. (2000) indicate that health care providers at reproductive health in clinics and hospitals scold the people when they ask for condoms. It is significant that despite the majority of participants regarding condom use as a method of protection from HIV infection, some still see it as promoting promiscuity. Some religions and cultural groups prohibit the use of condoms and provision of information concerning condom use, this leads to some of the population regarding, being faithful or abstaining from sex as the only options for them.

In this study, concerning personal risk perception only 14.81 % (n=56) perceived themselves to be at risk and it is much lower than study done in Bahir Dar, 50.2% (Dejene, 2001). This gap between actual and perceived risk is the major challenge in the HIV prevention campaign.

### **5.5 Discussion on Knowledge of VCT and Factors Inhibiting /Facilitating Its Utilization**

According to this study, majority of youth 94.17% had heard about VCT; and mass media was the most frequently reported source of information 55.33 %. This finding is consistent with other studies in our country. The studies of Alemu, 2004, pp.82-89, and Andargie and et al 2007, pp179-182 showed that mass media is the most frequently reported sources of information. The potential to use media and Anti-AIDS clubs to promote youth VCT service is also supported by the research findings from the Kenya-Muganda and et al. 2003 and others –Dejene, 2001.

All respondents who heard of VCT agreed that VCT is important and majority of the respondents (97.35%) desired to be tested in the future. 91(25.56%) youths had VCT before and this figure is considerably high when compared to DHS 2005 report in Ethiopia, which was only 14% of youth aged 15-24 years had been tested for HIV (CSA,2006), and consistent with the result of study done in Mersa among the population aged 15-49 years which was 26.1% (Bekele,2007). This might be due to improvement and awareness to VCT service, access of anti-retroviral therapy and the study area was urban.



The most commonly cited reason by VCT users for getting an HIV test was to know self which constituted 71.42% followed by for Marriage that constituted 10.98%. This finding converges with both studies finding in Kenya done by Joyce, 2006 and Malawi by Muganda and et al. 2003.

Overall, 97.35% study subjects showed their willingness to undertake HIV counseling and testing in the future. This finding also converges with other research findings done by Eshetu, 2004, Admassu, 2006, Negash, 2002, and Mphaya, 2006. However, this high percentage of willingness to take the VCT service by the study participants different from the actual practice. This might be due to less mobilization activity, fear of testing and its consequences.

The respondents also mentioned distance to the VCT services as a barrier to utilization of services and suggested that the VCT services should be within the school premises for easier access. This finding in line with various Ethiopian VCT guideline which says VCT services can be provided through the following four models of delivery: (1) integrated services provided in public, NGO, and private health facility settings, as designated VHCT units or under other programmes (Federal HIV/AIDS Prevention and Control Office 2007:8); (2) standalone counseling and testing services provided at sites outside health facilities (Federal HIV/AIDS Prevention and Control Office 2007:8); (3) outreach VCT services for special populations such as people in remote rural areas, refugees, and schools (Federal HIV/AIDS Prevention and Control Office 2007:8); and (4) VCT services provided by trained practitioners in government agencies, NGO, and private sector institutions as part of comprehensive workplace HIV programmes (Federal HIV/AIDS Prevention and Control Office 2007:8). These VCT sites are for the general public but they are often not designed to address adolescents' especial needs.

VCT services are reported not to be tailored for adolescents (UNAIDS 2001:33). The report further stated that there is very little information on VCT services for young people (UNAIDS 2001:33). The same UNAIDS report stated that in many high-prevalence areas, young people, especially young women, are at high risk from HIV infection yet they often have no access to VCT services. The report described young people's special vulnerabilities and a particular vulnerability of young women to HIV; however, this has not been translated into increasing access to VCT services for them (UNAIDS 2001:33). This is one of the barriers to VCT availability and accessibility for young people (Baggaley& Boswell 2002:15).

According to the findings of the study fear of stigmatization and discrimination is another main factors (20%) that inhibiting VCT utilization. The stigma and discrimination associated with HIV/AIDS have powerful psychological consequences for how people with HIV/AIDS come to see themselves, leading in some cases to depression, lack of self-worth and despair (UNAIDS 2002). Furthermore, stigma has been found to be the main obstacle in combating HIV/AIDS in the whole world (UNAIDS, 2002). Stigma and discrimination can also undermine prevention by making people afraid to find out whether or not they are infected, for fear of the reactions of others. In addition, fear of stigma and discrimination is known to discourage individuals from being tested for HIV and from disclosing their sero-positive status to sexual partners, family and friends (Weinhardt et al., 1999).

Stigma and discrimination may also cause those at risk of HIV infection and some of those infected to continue practicing unsafe sex because they do not want to raise suspicion about their HIV positive status (UNAIDS, 2002).

Baggaley and Boswell (2002:10) in their study reported that most youth prefer not to disclose their HIV status to their parent(s) because of the fear of rejection, discrimination, isolation and how it may affect the parent(s) who have made sacrifices for their education. Similarly some claim that because their parents are already stressed with life, it would be unfair to stress them further with positive HIV results (Baggaley& Boswell 2002:10).

With the advent and use of antiretroviral medications, it was not surprising that there were some respondents who did not know about the medication. Acceptance of those with an HIV positive diagnosis is more significant than it was before (Tolcha 2007:23). Even though the discrimination for those who have AIDS is still relevant, there is a noticeable degree of reduction among the adult population, but no noticeable change among adolescents and the youth in general (Central Statistical Agency 2006:187).

## **5.6 Discussion on Preferences VCT Centers, Models, Counselor and Ways of Getting Result**

According to this study, the majority preferred confidential testing. This indicated that maintaining confidentiality was a crucial element in the implementation of effective VCT services. With regards to ways of getting HIV test result majority of study participants preferred face-to face method of receiving HIV test result. Government institutions were the most preferred sites for VCT (75.39%) followed by FGAE clinic (13.22%). This finding is also consistent with study done in Malawi.

Regarding the convenient time for VCT service delivery, the majority 53.93 % ( 192) preferred at weekends. As regards to willingness to pay for VCT service among youth in this study was and this finding is consistent with other study done in South and North Gondar, 74% (21). The greater proportion of youth willing to pay for VCT service is a good indication for service expansion. But most of the respondents which constituted 67.74% reported to pay 1-5 birr.

The expenses of VCT are also mentioned in this study, and are supported in literature as a barrier in terms of access by young persons. Baggaley and Boswell (2002:16) reported that for VCT services to reach young people, VCT must be free. Any attempt to introduce or scale up VCT for young people must take cost analysis in to consideration (Baggaley & Boswell 2002:16). Similarly the finding strengthens results obtained from a 2004 study done on knowledge and attitude towards voluntary counseling and testing for HIV in North West, Ethiopia in which 93.8% of respondents reported their willingness to use the VCT service if such services were to be made available free of charge (Shitaye et al 2004:86).

When it comes to preferences of counselors, 61.51% of respondents reported as they preferred peer counselor which is followed by health professions that constituted 38.48% as similarly stated by work of Baggaley & Boswell 2002:21. According to them in order to address the needs of adolescents, it is important to provide youth-friendly services and youth-friendly service provider sites. But according to the Ethiopia VCT guideline 2007, available VCT services are found in integrated services, stand-alone counseling and testing services, outside health facilities, and outreach VCT services which are provided for special populations such as schools and government agencies (Federal HIV/AIDS Prevention and Control Office 2007:8). VCT services currently available do not seem to address adolescents' needs because statistics show minimal usage by adolescents (Federal HIV/AIDS Prevention Control Office 2007:8). The majority of students prefers schools and youth clubs to provide them with VCT services. Counseling and testing services targeting youth should be provided, where possible, by trained counselors (Federal HIV/AIDS Prevention and Control Office 2007:16). This guideline is congruent with the findings of this study. The counselors involved in providing VCT services for young people should be trained to work especially with young people and to understand the roles of transference and counter-transference in counseling, which has strong cross-cultural relevance for VHCT (Baggaley & Boswell 2002:21).

The increase in the use of VCT services by adolescents, such as HIV counseling and testing is encouraging for both policy makers and health care workers. In addition to providing quality VCT services, the development of affordable and effective medical care for people living with HIV is essential to address the urgent need to improve access and quality of services (Joint Publications of IPPF South Asia Regional Office and UNFPA 2004:6).

Short waiting periods at the VHCT services would also enhance utilization of VHCT services (Baggaley& Boswell 2002:15). The current study also mentioned short waiting periods as necessary to enhance utilization of VHCT services. A study carried out in 2005 in Ethiopia also reported long waiting periods as a deterrent from accessing VHCT services, and suggested a waiting period of thirty minutes as suitable (Federal Ministry of Health/HAPCO, AAU).

## 6.SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Summary

This study is set out to assess VCT service utilizations among youths in Gelemso high school. To achieve this purpose the following leading questions were formulated:-

- What are factors inhibiting utilization of VCT among youths?
- What are factors facilitating utilization of VCT among youths?
- What is the willingness of utilizing VCT service among youths
- What is the magnitude of VCT utilization among youths?
- What is knowledge and attitude towards HIV/AIDS and VCT among youths?

A descriptive cross-sectional study design together with Quantitative method was employed in this study to Assess of voluntary counseling and testing (VCT) utilization among youths in Gelemso high school. A sample size of 378 was taken from total of 2231 through two-stage methodsampling. The instrument used to collect pertinent information was structured questionnaires. The questionnaires were then coded and the data were entered and processed by using the Statistical Package for Social Sciences (SPSS) for Windows, Version 17. Frequency and percentage were used to analyze the collected data and the results were illustrated in the form of frequency tables and depicted graphically in order to provide an overview of the findings.

The result of the study revealed that the VCT service utilization of among the youth was relatively high. However, distance to the VCT services is mentioned as a barrier to VCT service utilization. In addition to this, fear of stigmatization and discrimination is another main factor that inhibits VCT utilization of youths. The study also showed that a desire to know self and marriage is a factor that facilitates VCT users for getting an HIV test.

The study findings also showed that adolescents are well informed about methods of prevention from HIV infection. However, a knowledge gap was identified among a significant number of youths. Likewise, according to the findings from the study, condom use was extremely low among the adolescent. What is more, in this study, concerning personal risk perception only lesser numbers of youths perceived themselves to be at risk. This gap between actual and perceived risk is the major challenge in the HIV prevention campaign. According to results of the findings conclusions was drawn.



## 6.2 Conclusions

- This study clearly indicates that awareness regarding HIV and VCT among the youth was relatively high and mass media have become a major source of information about HIV/AIDS and VCT.
- According to this study, majority of youths are willing and interested in using VCT services but there was low VCT service utilization.
- Clearly this study revealed that the reason that facilitates VCT utilization among youths was mainly desire to know self. What is more, this study also indicated that distance to the VCT services as a major barrier to utilization of VCT services.
- The study also evidently shows that majority of the study participants preferred confidential model of testing, peers as counselor, face- to- face receiving the HIV test result and provision of VCT service at weekends, which makes it possible to accept by youth at large.
- As per the study majority of youths admitted having sexual experience and used condom during their sexual practice and unprotected sex with HIV infected individuals was the most common mode of HIV transmission cited by the respondents.

### **6.3 Recommendations**

- VCT should be promoted through Proper IEC activities like mass media and health education in health institutions and mass media professionals can exercise their influence by providing accurate and consistent information.
- Using schools and youth clubs is important to extend the VCT service more by youth, it helps young people to develop confidence, change attitudes, and establish more meaningful relationships with adults.
- It is advisable to provide voluntary HIV counseling and testing services during extra regular days and hours (such as weekends and late afternoons).
- Encourage the existing health institution to provide youth-friendly voluntary counseling and testing for HIV (VCT) service and to give priority to better address the need of youth that could motivate for VCT utilization.
- Religious and community leaders are highly respected by the people and have a responsibility to assist young people by giving them a consistent set of messages regarding HIV/AIDS and VCT.
- Public health administration and other concerned bodies should work to make students more knowledgeable about VCT.
- VCT services should be within the school premises for easier access

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# Annexes 1

## Questionnaires - English version

### Research Subject Information and Consent Form

**Title: Assessment of Voluntary Counseling and Testing Service Utilization among Youths:  
A Case of Gelemso High School**

**Investigator:** Anteneh Gemechu

**Site:** Gelemso

**Introduction:** Hello. My name is \_\_\_\_\_ working as data collector in this study that assess Assessment of Voluntary Counseling and Testing Service Utilization among Youths: A Case of Gelemso High School. Thank you for allowing us to share your precious time for a brief discussion about a study to be conducted in Gelemso. This study is being conducted among grade 9 and 10 students and you are selected to participate in the study.

The purpose of this study is to Assessment of Voluntary Counseling and Testing Service Utilization among Youths: A Case of Gelemso High School (youth) who reside in the town. The information you give us could help to design appropriate VCT programs for youth. The study will be conducted through interviews. I'm going to ask you some general and in-depth personal questions.

Your answers are completely confidential; your name will not be written on this form, and will never be used in connection with any of the information you tell me. If you don't want to answer any questions, you may end this interview at any time you want to.

However, your honest answers to these questions will help us better understand for our study objective and for future action. We would greatly appreciate your helping.

Are you willing to participate in the study? If yes, \_\_\_\_ (1) continue. No \_\_\_\_ (2) stop.

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

001 Kebele \_\_\_\_\_

002 Ketena \_\_\_\_\_

003 House Number \_\_\_\_\_

004 Interviewer name \_\_\_\_\_

005 Interviewer code /\_\_\_\_/\_\_\_\_/



## Annex 2. QUESTIONNAIRES

### Section 1- Socio-Demographic Characteristics

No	Questions and filters	Response	Code	Skip
101	Age Group	15 =1 16 =2 17 =3 18 =4 19=5		
102	Sex of the respondent	M=1 F=2		
103	Grade of respondents	9 <sup>th</sup> =1 10 <sup>th</sup> =2		
104	What is your religion?	Christian =1 Muslim=2 Others=3		
105	What is your marital status?	Single=1 Married=2 Divorced=3		
106	To which ethnic groups do you belong?	Oromo =1 Amhara =2 Somali =3 Harari=4		

**Section 2: Knowledge about HIV and AIDS transmission prevention**

No	Questions and filters	Response	Code	Skip
201	Have you heard about HIV/AIDS?	Yes.....1 No.....2 Don't know.....88 No response.....99		
202	From where did you hear about HIV/AIDS? (check all that apply)	Health worker/facility.....1 Mass media.....2 (Radio, TV, Newspaper ...) Friends.....3 Neighbors.....4 Others (specify)_____		
203	How is HIV/AIDS transmitted? (check all that apply)	Sexual intercourse.....1 Mother to child.....2 Transfusion of infected blood...3 By sharing sharps.....4 (Blade, Needle, etc) Don't know.....88 Others (specify)_____		
204	How many modes of HIV transmission do you know?	One.....1 Two.....2 Three.....3 Four.....4 Five.....5		
205	Which way of transmission is the most common cause of infection in our country?	Mother to child.....1 Unprotectedsexual practice.....2 Improper condom use.....3 No faithfulness to partner..4 Others( specify)-----		

206	What are prevention methods you know?	Condom use.....1 Abstinence .....2 Faithfulness.....3 Avoiding the sharing of sharp materials.....4 Avoiding blood contact from infected persons.....5 Prevention of mother-to-child transmission.....6		
207	Which prevention method do you think most relevant for young people?	Condom use.....1 Abstinence.....2 Faithfulness.....3 Avoid sharp material sharing Contact.....4		

**Section 3: Sexual behavior and perception personal risk**

<b>No</b>	<b>Questions and filters</b>	<b>Response</b>	<b>Code</b>	<b>Skip</b>
301	Have you ever had sexual intercourse?	Yes.....1 No.....2		
302	If yes, at what age you had sex first?	Age in year _____ Don't know .....88 No response .....99		
303	Have you had sexual intercourse in the past one year?	Yes.....1 No.....2 No response.....99		
304	If yes, have you ever used condom?	Yes.....1 No.....2		
305	If yes, how often you have used condom when you have sexual intercourse in this one year?	Always.....1 Sometimes.....2 No response.....99		
306	Do you have a boy/girl friend?	Yes.....1 No.....2 No response.....99		
307	Did you ever have sex with your friend?	Yes.....1 No.....2 No response.....99		
308	If yes, what was the action to prevent HIV?	Condom.....1 HIV Testing.....2 Nothing.....3 Other (Specify)_____		

309	If answer for Q. 306 is No, Why didn't you have sex with your friend until now?	Not before HIV testing.....1 To avoid pregnancy.....2 To protect from STIs.....3 Not before marriage.....4		
310	Did you have any STIs in the past one year?	Yes.....1 No.....2 No response.....99		
311	Do you chew chat?	Have never chewed.....1 Chewing once in month.....2 Chewing weekly.....3 Chewing daily.....4		
312	Do you drink alcoholic beverages like Tela, Teji, Areke, Beer and the likes?	Have never drunk.....1 I drink it on holidays.....2 Always after chewing.....3 On weekly base.....4 Daily.....5 Other (specify)_____		
313	Do you think you have risky behavior for acquiring HIV?	Yes.....1 No.....2 Don't know.....88 No response.....99		

**Section 4: VCT and factors inhibiting /facilitating utilization**

No	Questions and filters	Response	Code	Skip
401	Have you ever heard of voluntary counseling and testing?	Yes.....1 No.....2 No response.....99		
402	What was your first source of information about this service?	Mass media.....1 Health institution.....2 Anti-AIDS clubs.....3 Peer friends.....4 Others.....5		
403	Is VCT available in your area?	Yes.....1 No.....2 No response.....99		
404	Where is the service located in your area?	Health center.....1 Private clinics.....2 Others (specify)_____		
404	How long in time did it take to get the service site in your locality by foot walk?	Minutes_____		
405	What do you think is the advantage of VCT?	To know self.....1 To plan for future life.....2 Self-care.....3 Other.....4		

406	Who can benefited more from VCT? (check all that apply)	Youth.....1 People undergo for marriage...2 Suspected people.....3 Pregnant mother.....4 Everybody.....5 Health worker.....6 Don't know.....88 Others (specify)_____		
407	Have you ever had VCT?	Yes.....1 No.....2 No response.....99		
408	If yes When did you test for HIV?	Before three months.....1 Before six months.....2 Before one year .....3 Before two years.....4 Before three years.....5 Before four years.....6 Noreponse.....99		
409	Where did you take the test?	Gelemso health center.....1 Other health institutions.....2		
410	Did you have counseling during HIV test?	Yes.....1 No.....2 No response.....99		
411	When did you receive counseling?	Before HIV test .....1 After HIV test .....2 Before and after HIV test .....3 Other/specify.....		
412	Did you satisfied for the services given?	Yes.....1 No.....2 No response.....99		

413	If yes What was the reason for your satisfaction?	<p style="text-align: right;">Yes No</p> Warm reception-----1 2 Quick service-----1 2 Confidentiality -----1 2 Privacy-----1 2 Professionalism of health care workers.....1 2 Referral for care and support---1 2 Free service-----1 2 Brief counseling-----1 2 Others (specify)-----1 2		
414	If No for Q.412 what was thereason?	<p style="text-align: right;">Yes No</p> No warm reception-----1 2 Long waiting time-----1 2 Lack of confidentiality-----1 2 Lack of privacy-----1 2 Expense -----1 2 The counseling given was not clear .....1 2 No referral for care and support ...1 2 Professionalism of health care workers.....1 2 Others (specify)_____		
415	If your response for Q.405 is No What factors inhibited you not to attend VCT?	Accessibility of VCT Services...1 Stigma and Discrimination.....2 Disclosure of HIV Status.....3 Lack of Confidentiality.....4 Fear of HIV Results.....5 Don't know about the service....6 Others (specify)_____		
416	If your response for Q.405 is Yes	Desire to Know One's HIV Status..1		



	What factors facilitated you to attend VCT?	Perceived at Risk of HIV/AIDS....2 Acceptability of VCT of HIV.....3 Marriage .....4 Influence from Others.....5 Others (specify)_____		
417	Are you willing to have VCT in future?	Yes.....1 No.....2 Don't know.....88 No response.....99		

**Section 5: Preferences of VCT centers, models, counselor and ways of getting VCT result**

No	Questions and filters	Response	Code	Skip
501	In which of the following health institutions do you think VCT service is given better?	Government health institute....1 Private health institute.....2 FGAE Clinics.....3 Other (Specify)_____ Don't know.....88		
502	Whom do you prefer to be youth VCT provider?	Health professionals.....1 Peer counselor.....2 People living with HIV/AIDS.3 Any counselor could be..... 4 Other (specify)_____		
503	Why do you prefer this health institution?	Good care & technical competence.....1 Attractive environment.....2 Treat with respect and dignity.....3 Affordable.....4 Confidential.....5 Privacy secured.....6 Near to home.....7 Other (specify)_____		
504	Which way do you prefer to obtain HIV test result?	Face to face.....1		

		Secretive letter.....2 Partner.....3 Relative.....4 Do not know.....88 Others (specify)_____		
505	Which time do you think it is convenient for youth VCT service?	In the usual working hours.....1 After working hours .....2 Weekends.....3 Other (specify)_____		
506	Are you willing to pay a reasonable fee for VCT service?	Yes .....1 No .....2		
506	If Yes, What do you think is a reasonable fee for VCT services?	_____ Ethiopian Birr		
507	Which type of VCT Model is your preference?	Confidential.....1 Anonymous.....2 Don't know.....3 No response.....4		

This is the end of our questionnaire. Thank you very much for taking time to answer these questions. We appreciate your co-operation.

006 Date of interview /\_\_\_/\_\_\_/\_\_\_/

dd mm yyyy

007 Checked by supervisor: Name \_\_\_\_\_ Sig. \_\_\_\_\_ Date \_\_\_\_\_

**Proforma for Submission of MSW Project proposal for Approval from Academic  
Counselor at study center**

Enrollment No: \_\_\_\_\_

Date of submission: \_\_\_\_\_

Name of the study center: St Mary University College

Name of the guide: AssayeLegesse(Mr.)

Title of the Project:**Assessment of Voluntary Counseling andTesting**

**Service Utilization among Youths: A Case of Gelemso**

**High School**

Signature of the student: \_\_\_\_\_

Approved/not Approved \_\_\_\_\_

Signature: \_\_\_\_\_

Name and address of the guide:

Name and address of the student:

AssayeLegesseAntenehGemechu

**Assessment of Voluntary Counseling and Testing  
Service Utilization among Youths: A Case of Gelemso  
High School**

**A Proposal Submitted to Indira Gandhi National Open University  
School of Social Work in Partial Fulfillment for the  
Master Degree of Social Work**

**By**

**Anteneh Gemechu**

**ID.NO. 109100758**

**Advisor**

**Assaye Legesse (Mr)**

**1. INTRODUCTION**

## 1.1. BACKGROUND

Worldwide, Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) poses an enormous challenge on the survival of mankind. The HIV pandemic remains the most serious of infectious disease challenges to public health. Promising developments have been seen in recent years in global efforts to address the AIDS epidemic, including increased access to effective treatment and prevention programmes. However, the number of people living with HIV and deaths due to AIDS continues to grow. Sub-Saharan Africa remains the most seriously affected region, with AIDS remaining the leading cause of death there. More than two thirds (68%) of all people HIV-positive live in this region where more than three quarters (76%) of all AIDS deaths in 2007 occurred (UNAIDS/WHO, 2007).

Nearly 12 million young people are living with HIV/AIDS; and more than 7,000 young people become infected with HIV every day. Young people have limited access to information and services, they are socially inexperienced and dependent on others, and they may be influenced by peer pressure in ways that increase their risks for HIV infection. In particular, young girls and young women are more biologically vulnerable to HIV infection than are mature women and men (WHO, 2006).

Ethiopia is one of the countries hard hit by the HIV/AIDS pandemic. Since the first two reported AIDS cases in 1986, the disease has spread at an alarming rate throughout the country. The point prevalence estimate in 2007 showed that, the number of people living with HIV/AIDS was 977,394 and of these 578,018 (59%) were females. The national adult HIV prevalence in the same year was estimated to be 2.1%, of which 7.7% was from urban and 0.9% from rural areas According to the 2006 report of AIDS in Ethiopia, people between 15-24years had the highest prevalence of HIV, 5.6%(FMOH, 2000).

HIV Counseling and Testing has been identified as the key entry point to prevention, care, treatment and support services, where people learn whether they are infected, and are helped to

understand the implications of their HIV status and make informed choices for the future. Currently, most people remain unaware of their HIV status due to various reasons. However, with the development of affordable and effective medical care for people living with HIV, the demand for testing has rapidly increased, creating an urgent need to improve access and quality of the service (FMOH/HAPCO. 2007).

Children and youth have unique vulnerability to HIV infection. Youth (15-24 years) are particularly vulnerable to HIV because of the strong influence of peer pressure and the development of their sexual and social identities which often leads to experimentation. As they are initiating sexual behavior, counseling for safe practice is vital. Adolescents should be counseled to delay their sexual debut and practice abstinence (FMOH 2007.).

The majority of young people in the age group 15-24 years may be at risk of HIV infection due to their engagement in unsafe sex. Young people may also be at risk for HIV infection from unsafe injection drug use, exposure to contaminated blood and blood products or unsterilized skin-piercing procedures. In Africa alone, an estimated 1.7 million young people are infected annually. Preventing HIV among young people is particularly critical in SSA, where in many countries young people comprise more than 30% of the population and general HIV prevalence rates often exceed 10% (FHI, 2002)

Various studies have shown that acceptance of VCT is influenced by knowledge about HIV transmission and prevention, knowledge about VCT, positive attitudes towards HIV testing and self-perceived risk of HIV infection. A study on HIV voluntary counseling and testing service preference in rural Malawi among 868 women aged 15-34 and 648 men aged 20-44 revealed that knowledge about HIV/AIDS prevention, knowing someone with AIDS, knowing the location of a test site and perceived risk of HIV infection all had consistently significant association with VCT use for men and women (Joseph and et al., 2005)

Voluntary counseling and testing (VCT) has been recognized as one of the essential prevention interventions to control the HIV pandemic. Especially youth lived in Gelemso town are involved in risky behaviors, like chat chewing. However due emphasis has not been given to assess factors

associated with the utilization VCT service among youth in the area. Therefore, the aim of this study was to assess factors that contribute to VCT service utilization among youth in Gelemso town, eastern Ethiopia. The findings of the study might be helpful to expand and improve the service of VCT and contributing to the HIV/AIDS prevention and control programs distinctively in the town and Ethiopia in general.

## **1.2 STATEMENT OF THE PROBLEM**

Ethiopia is one of the sub-Saharan countries highly affected by the HIV/AIDS pandemic. The adult prevalence of HIV infection in Ethiopia was estimated at 2.4% in which most of the burden occurring among the young age groups (*FMoH, 2007*).

Recent studies indicate that overall coverage of voluntary counseling and testing (VCT) are extremely poor in countries with very high HIV/AIDS burden. Only 5% of the people with HIV/AIDS are estimated to be aware of their status worldwide (*WHO, 2004*).

Access to VCT is a key for successfully implementing anti-retroviral treatment and avoiding re-infection and transmission through behavioral changes. Voluntary counseling and testing (VCT) also entry points for successful implementation of prevention, care and support services among both HIV negative and positive individuals. Effective knowledge of HIV status is critical to expanding access to HIV treatment, care and support timely and in offering people living with HIV an opportunity to receive information and tools to prevent transmission to others. However, VCT service is not available in most regions of Africa. For our things there is a scarcity of information regarding barriers to HIV testing in sub-Saharan Africa including Ethiopia (*WHO, 2004*).

Available studies in Ethiopia indicated that only 41% of the school-youth were aware of the existence of confidential HIV testing in their vicinity. The proportion of youth that had VCT was below 10%. In these studies, nearly half of the youth perceived themselves to be at low or no risk in spite of engagement in multiple sexual partnerships (*MOH and HAPCO, 2005*).



Studies done both in developed (CDC HIV and AIDS surveillance Report, 2004; Hall, Ruiguang, Rhodes et al. 2008:523) and developing countries (Mwandira 2008; Thupayagale –Tshweneagae 2010:34) recognizes adolescent friendly services such as voluntary HIV counseling and testing (VCT) as the best modern of educating adolescents about HIV and AIDS related risks. The majority of adolescents may be at risk of HIV infection due to their engagement in unsafe sex. Young people are also being at risk for HIV infection from unsafe injection drug use, exposure to contaminated blood product or unsterilized skin-piecing procedures. In Africa alone, an estimated 1.7 million young people are infected annually. Preventing HIV amongst adolescents is particularly critical in Sub Saharan Africa (SSA), where in many countries adolescents comprise more than 30% of the population and general HIV prevalence rates often exceed 10% (Kabiru and etal, 2011).

The prevalence of HIV and AIDS amongst adolescents in Ethiopia is 4.8%. Some studies, (Alemu, Abseno, Degu, Wondmikun&Amsalu 2004:85; Tegegn, Yazachew&Gelaw 2008: 244) attribute the high prevalence of HIV and AIDS amongst the youth to poor understanding of the sources of transmission, lack of relevant knowledge; attitudinal problems and unfriendly services for adolescents. HIV pandemic is a major threat to adolescents; understanding how to prevent transmission is the first step to avoid infection (United Nations 2010b:41–46). This is especially important for adolescents and the youth who, in 2008, accounted for 40% of new HIV infections worldwide (United Nations 2010b:41–46). Comprehensive and correct knowledge of HIV amongst this group is still unacceptably low in most countries (United Nations 2010b:41–46).

The purpose of this study will be to assess factors influencing VCT utilization of youths. And also the study will attempt to facilitate ways to change the attitude of youths in Gelemso. Specifically, the study sought to answer the following questions:

- What are factors inhibiting utilization of VCT among youths?
- What are factors facilitating utilization of VCT among youths?

- What is the willingness of utilizing VCT service among youths?
- What is the magnitude of VCT utilization among youths?
- What is knowledge and attitude towards HIV/AIDS and VCT among youths?

### **1.3 OBJECTIVES**

#### **1.3.1 General objective**

The general objective of the study is to assess factors contributing to voluntary counseling and testing (VCT) utilization among youths in Gelemso high school.

#### **1.3.2. Specific objectives:**

This study distinctly placed to:

- Identify factors inhibiting utilization of VCT among youths
- Identify factors facilitating utilization of VCT among youths
- Assess youth's willingness in utilizing VCT service at Gelemso VCT centers
- Determine magnitude of VCT utilization among youths.
- Examine knowledge and attitude towards HIV/AIDS and VCT among youths.
- Forward possible suggestions / recommendations for effectual VCT utilization

### **1.4 SCOPE OF THE STUDY**

The study will be delineated its scope to school youths of Gelemso town. The research did not include youths that are not in school. Therefore, the focus of this study is assessing factors contributing to VCT utilization among youths Gelemso High school.

### **1.5 SIGNIFICANCE OF THE STUDY**

Albeit, the concept of VCT is widely studied theme in the west, there is hardly any study done in Ethiopia. Therefore, this pioneer study will add up to the knowledge regarding VCT and help individuals to synthesize the attitude youths have towards VCT. What is more, the study will provide information about attitudes of high school students towards the utilization of VCT services. This information could assist policy makers in improving the VCT services for adolescents who make up the majority of people affected by the HIV and AIDS pandemic in the world, and especially in Ethiopia. The results of this study can also serve as a basis for a larger, more detailed study on what needs to be done to bridge the gap between knowledge, attitudes and the utilization of VCT services.

## **1.6 DEFINITION OF KEY TERMS**

**Adolescence:** The transition from childhood to adulthood that is marked by distinct biological, cognitive, and socio-cultural. However, for the purpose of this study an adolescent will refer to secondary school students, aged 15–19 years, in Gelemso, Ethiopia.

**Attitude:** Is an enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols

**Counseling:** Is relationship between two people where one person attempts to assist the other to organize himself or herself better to attain a form of happiness by adjusting to a situation. For the purpose of this paper counseling will mean a purposeful dialogue between a person and care provider aimed at enabling a person to cope with stress and make personal decisions about taking an HIV test.

**Discrimination:** Is an expression of individual attitudes; a social process used to create and maintain social control to produce and reproduce social inequality; an action or treatment based on stigma and directed towards stigmatization.

**Knowledge:** Is accumulated external and explicit information belonging to the community, being leveraged by tacit, intrinsic insights which originate within individuals who may act alone or cooperatively in order to control or integrate with their environment. For the purpose of this study respondents were considered to be knowledgeable about HIV prevention if they correctly identified

the three main ways to prevent HIV transmission: abstinence, faithfulness to one uninfected partner, and consistent condom use.

**VCT:** an acronym for voluntary HIV counseling and testing, a process by which an individual undergoes counseling to enable him or her to make informed choices about being tested for HIV.

## **1.7 ORGANIZATION OF THE THESIS**

The study will be divided into five sections. The first section will introduce the topic and the background and nature of the problem. It presents a succinct overview factors affecting VCT among youths. The second section will present a review of literature. The second section will present a review of literature. In this chapter literature gathered from different sources like books, magazines, journals and internet will be presented. The third section will discuss the methodologies that will be used for the study. The fourth chapter will be presenting the results and findings. And the final section will present the conclusion and suggestion.

## **CHAPTER TWO**

### **2. LITERATURE REVIEW**

#### **2.1. Overview of HIV/AIDS**

Globally, the HIV/AIDS epidemic remains a major public health, social, economic and development challenge. According to global summary of AIDS epidemic 2007, 33.2 million people living with HIV worldwide, 2.5 million newly infected people with HIV and an estimated 2.1 million people died due to AIDS. Every day, over 6800 persons become infected with HIV and over

5700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services. Sub-Saharan Africa remains the most seriously affected region, with AIDS remaining the leading cause of death there. It is estimated that 1.7 million people were newly infected with HIV in 2007, bringing to 22.5 million the total number of people living with the virus. Unlike other regions, the majority of people living with HIV in sub-Saharan Africa (61%) are women (*UNAIDS/WHO, 2007*).

## **2.2. Overview of voluntary counseling and testing**

There are different HIV prevention strategies. The most common strategies are Information, Education and communication (IEC) campaign, community mobilization, condom promotion and distribution, STI management, VCT, PMTCT, ART, school based HIV/AIDS education, etc. VCT is an effective strategy for facilitating behavior change for both clients that test negative and positive. VCT is a cost-effective intervention for behavioral change. In addition, VCT is an important entry point to other HIV/AIDS services, including prevention of mother to child transmission (PMTCT), prevention and management of HIV related illnesses, and social support. From a human rights perspective, VCT can play a role in addressing stigma and discrimination. Making VCT more accessible to enable people to know their status can help break the cycle of silence and the myths and misconceptions that fuel the epidemic and may assist in the normalization of having an HIV test (*IPPF and UNFPA, 2004.*)

Voluntary counseling and testing (VCT) of HIV is the process whereby an individual or couple undergoes counseling to enable him/her/them to make an informed choice about being tested for HIV. This decision must be entirely the choice of the individual/s and he/she/they must be assured that the process will be confidential (FHI, 2002).

Voluntary counseling and testing (VCT) is much more than drawing and testing blood and offering a few counseling sessions. It is a vital point of entry to other HIV/AIDS services, including prevention and clinical management of HIV-related illnesses, tuberculosis (TB) control, psychosocial and legal support, and prevention of mother-to child transmission (PMTCT) of HIV. High-quality VCT enables and encourages people with HIV to access appropriate care and is an effective HIV-prevention strategy. VCT can also be an effective behavior-change intervention.

VCT offers a holistic approach that can address HIV in the broader context of peoples' lives, including the context of poverty and its relationship to risk practice (*Ibid*).

Voluntary counseling and testing (VCT) is an important tool for preventing infection and it allows young people to evaluate their behavior and the consequences thereof. Knowledge of HIV status is the gate way to behavioral change, treatment, care, support and has documented prevention benefits. However, current reach of HIV testing services is poor and the uptake is low largely because of fears of stigma and discrimination (*UNAIDS 2004.*)

### **2.3. Principles of VCT services**

Pretest, post-test and ongoing counseling are part of the services provided at all VCT sites. Services are voluntary, and are used by clients who have already decided that they want to take HIV test. Confidentiality is an essential component of all the services, at the same time, openness towards partners and families about the status is promoted. Services are anonymous and results are never given over the telephone or disclosed to another person. Clients are identified only by numbers even if they are registered under their name. Counseling sessions are tailored to the individual or couples attending. Continuity of counseling is also emphasized, with the majority of clients seeing the same counselor for pretest, post- test and ongoing counseling (*UNAIDS. 2002*).

### **2.4. Significance of VCT**

VCT offers benefits to those who test positive *or* negative. VCT alleviates anxiety, increases clients' perception of their vulnerability to HIV, promotes behavior change, facilitates early referral for care and support including access to antiretroviral (ARV) therapy-and assists in reducing stigma in the community (*FHI, 2002*).

VCT provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment with counseling and referral for ongoing emotional support and medical care. People who have been tested seropositive can benefit from earlier appropriate medical care and interventions to treat and/or prevent HIV- associated illnesses. Pregnant women who are aware of their seropositive status can prevent transmission to their infants. Knowledge of HIV serostatus can also help people to make decisions to protect themselves and their sexual partners from infection. Studies have indicated that VCT may be a relatively cost- effective intervention in preventing HIV transmission in developing countries including low prevalence settings (WHO/UNAIDS, 2001).

## **2.4 Factors Inhibiting VCT Uptake**

### **2.4.1 Stigma and Discrimination**

The stigma and discrimination associated with HIV/AIDS have powerful psychological consequences for how people with HIV/AIDS come to see themselves, leading in some cases to depression, lack of self-worth and despair (UNAIDS 2002). Furthermore, stigma has been found to be the main obstacle in combating HIV/AIDS in the whole world (UNAIDS, 2002). Stigma and discrimination can also undermine prevention by making people afraid to find out whether or not they are infected, for fear of the reactions of others. In addition, fear of stigma and discrimination is known to discourage individuals from being tested for HIV and from disclosing their sero-positive status to sexual partners, family and friends (Weinhardt et al., 1999). Stigma and discrimination may also cause those at risk of HIV infection and some of those infected to continue practicing unsafe sex because they do not want to raise suspicion about their HIV positive status (UNAIDS, 2002).

### **2.4.2 Accessibility of VCT Services**

Accessibility has been found to limit VCT uptake in some places especially in the rural areas. Consequently, Kipitu (2005) noted that in studies done in Kenya, Tanzania, and Zimbabwe around 60% of adults wanted to know their HIV status, however, only 15% or less had access to

VCT. Hankins (2000) also observed that the acceptability of VCT by pregnant women in the developing countries has increased to 69%, however, the main obstacle in the poorest settings is inaccessibility which restricts many HIV positive women from making informed decisions about their HIV status, such as, termination of pregnancy or taking of antiretroviral prophylaxis to reduce transmission of HIV to their babies. Besides cultural and social barriers continue to be ignored and poorly understood in resource poor countries, such as India where VCT centers have been recently established primarily in urban settings (Rogers et al., 2006).

### **2.4.3 Fear of Abuse**

Studies have shown that fear of their male partners' violent reaction is a serious barrier to women's disclosure of positive test results (Boswell and Bagalley, 2002). The authors further reported that in a qualitative study conducted in Dares Salaam, Tanzania, and young HIV positive women were more likely to report partner violence than young HIV negative women. Furthermore, in Zambia it was thought to be shameful for a woman to have HIV (UNAIDS, 2000) and these women often experience violence from their partners. Research from the Positive Women's Network in India indicated that HIV infection often leads to emotional abuse and stigma within the home and community (PWN+, 2004). Moreover, studies have reported that women are often accused of infidelity or forced from their home as a result of testing positive (Nath, 1997).

### **2.4.4 Disclosure of HIV Status**

Studies show that HIV related stigma and discrimination are associated with not disclosing HIV status to sex partners, and non-disclosure is closely associated with HIV risk behaviors. In a study conducted in Cape Town in South Africa it was found that 42% of participants did not disclose their HIV status to the people they had sex with (Simbayi et al., 2007). Furthermore, it was also found that participants who had not disclosed their HIV status to their sex partners were



likely to have multiple sex partners, HIV negative partners, or partners of unknown HIV status (Simbayi et al., 2007). Furthermore, it was found that not disclosing their HIV status to partners was also associated with other people having lost a job or a place to stay because of disclosing their HIV positive status (Simbayi et al., 2007).

In Baltimore, Rothenberg et al. (1995) found that among a sample of 136 health care providers serving HIV-infected women, 24% of providers had at least one female patient who experienced physical abuse after disclosing their HIV status to their partner. Similarly, in Kenya, among the women who disclosed their HIV status to their partners, some were chased out of their homes, while some were beaten (Temmerman et al., 1995; Gaillard et al., 2002). In Tanzania after disclosure of their positive results some HIV positive women said that their partner blamed them while others were abandoned by their partners (Maman et al., 2001). Women's barriers to HIV testing and positive status disclosure reflect the unequal and limited power that many women have to control their risk for infection (Maman et al., 2001). However, in some studies most VCT clients reported positive experiences with disclosure of their HIV status (USAID, 2003).

#### **2.4.5 Lack of Confidentiality**

Confidentiality is an important factor that may hinder utilization of VCT services. Before taking the HIV test people want to be assured of confidentiality. In South Africa, Njagi and Maharaj (2006) found that respondents felt that there was no privacy at the VCT facility especially in the waiting room since people could hear what was said when people were making appointments to go for VCT. Lack of confidentiality of test results was highlighted as the main barrier for not taking the HIV test among pregnant woman attending antenatal clinic in Eastern Cape, South Africa (Peltzer et al., 2007). A study in rural southern India found that although the majority of pregnant women were willing to go for VCT and would seek medical interventions to prevent MTCT of HIV if they were detected to have HIV, most were concerned about the confidentiality of their results (Rogers et al., 2006). In a study on the acceptability of VCT among Nigerian women attending antenatal clinics, Ekanem and Gbadegesin (2004) found that confidentiality was the major concern in undertaking the HIV test and most of the respondents would not want to undergo testing if results would be made available to their employers.

In rural Uganda all women were willing to take an HIV test during pregnancy, and to reveal their HIV status to maternity staff, however, they were anxious about confidentiality and feared rejection during delivery if their status was known (Pool et al., 2001). As such, the success of VCT in reaching women depends on utilization, trusting health services and empowering women to seek and access VCT services (Desai, 2005).

In South Africa, less trust in the health care system or fearing a breach of confidentiality and a lack of follow-up support after diagnosis was mentioned as the barriers for undertaking VCT (Van Dyk and van Dyk, 2003). In rural Uganda participants favored VCT services and counselors were seen as competent but participants argued that they preferred counselors from a different community (Kipp et al., 2002). This shows that even though many people still regard counselors as efficient and competent there is still mistrust when it comes to confidentiality. People prefer counselors from a different community because they believe that they will not judge them or reveal their HIV status to other people.

#### **2.4.6 Fear of HIV Results**

Some people associate being HIV positive as a death sentence therefore the fear of getting positive results may prevent them from going for VCT. According to Pool et al. (2001), in Uganda women feared HIV positive test result due to the rumor that medical staffs were killing HIV positive people in order to reduce the HIV prevalence. In a study done in South Africa, Njagi and Maharaj (2006) found that the majority of respondents did not go for VCT because of fear of a positive result. In Tanzania, 52% of women attending VCT did not disclose their HIV positive status because of fear of their partner's reaction (Maman et al., 2001).

In the study among mineworkers in South Africa, fears of being HIV positive, as well as concerns of colleagues' reactions were the most frequent responses for not testing for HIV/AIDS (Day et al., 2003). A study on the barriers to preventing HIV transmission from mother-to-child in the Eastern Cape, found that most pregnant women (92.4%) indicated that they have never had an HIV test because of fear of HIV positive results (Peltzer et al., 2007). In Ghana, the reason given by participants for being unwilling to get tested was fear of positive results (Holmes et al.,

2008). Fear of testing HIV positive has exacerbated lack of utilization of VCT service. However, people still need to be taught the importance of knowing one's status because the perceived benefit of VCT far outweighs the fear of testing positive.

## **2.5 Factors Facilitating VCT Uptake**

### **2.5.1 Desire to know one's HIV Status**

The major factors that would encourage women to go for VCT was being provided with HIV/AIDS information, wanting to know their HIV status and concern for the transmission of HIV from mother-to-child (Peltzer et al., 2007). In the study among university students in Durban, Njagi and Maharaj (2006) found that the desire to know one's status was the main reason for students seeking VCT services. The availability of ART has played a big role in increasing demand for VCT. In Haiti, people at first were not interested in VCT as they believed that it did not treat people however, after the introduction of ART, there was a 300% increase in VCT (Milosevich, 2005). Furthermore, the study observed that the introduction of AZT has led to a 90% increase in VCT rates among pregnant women in Haiti. According to Ekanem and Gbadegesin (2004) several studies have shown that those who knew about zidovudine (ZDV) therapy for pregnant women were more likely to have had an HIV test than those without such knowledge. In addition, researchers found that 20% of young people who undertook VCT in Kenya and Uganda reported that they were not sexually active but were simply seeking access to information (Boswell and Baggaley, 2002).

### **2.5.2 Perceived at Risk of HIV/AIDS**

There are many different factors that may influence utilization of VCT services. Women with HIV are more likely to go for testing than HIV negative women as positive women are likely to get sick or lose weight and therefore feel compelled to go for the test (Sherr et al., 2007).

However, in general, those who were at elevated risk through their sexual behavior, sexual networks, relationship status or condom use, were failing to access VCT (Sherr et al., 2007). Low perceived risk behavior is also another factor that influences the decision not to go for VCT. In their study among college students in Kwazulu-Natal, Njagi and Maharaj (2006) found that respondent did not utilize VCT services because they felt that they were not at risk of contracting HIV mainly because they were not currently sexually active, consistently used condom or never had sex.

Studies suggest that marriage is not a safe haven against the risk of HIV infection especially for girls who marry at young ages. Bruce and Clark (2003) argue that girls who married before the age of 18 are more at risk due to unprotected sexual exposure, which is often with older partners who, by virtue of their ages, have an elevated risk of being HIV positive. Furthermore, Bruce and Clark (2003) argued that in Uganda there is an increase in VCT uptake among couples who are about to get married and the desire for young girls to go for VCT increases if they are to get married. Similarly, in Uganda the majority of people accepted VCT because they were planning to get married (27%) or because of a new relationship (84%), while some (35%) tested in order to plan for the future (Muller et al., 1992). The Kara Clinic in Zambia, for instance, reported an increase in number of youth seeking VCT before getting married or getting involved in a new relationship (McCauley, 2004).

### **2.5.3 Influence from Others**

Studies suggest that influence from spouse, peers and family is a major factor impacting on the decision to go for VCT. In South Africa it was found that peer influence among university students was the motivating factor for others to attend VCT services (Njagi and Maharaj, 2006). Furthermore, studies done in other African countries have mentioned that recreational centers that have VCT facilities were also encouraging more young people to go for VCT. In the study

conducted in Tanzania participants highlighted the importance of family, friends, peers and priests in encouraging HIV testing and disclosure of positive results (Maman et al., 2001). In Zambia, peer influence on VCT uptake was cited as a major contributing factor in increasing VCT uptake in youth centers in Zambia (Obarzaucher, 2002).

#### **2.5.4 Couple Counseling**

VCT for couples is a particularly powerful HIV prevention tool (Painter, 2001). Couple counseling and testing of HIV has been highlighted as reducing stigma and the fear of disclosing positive results to other partners. Disclosure has a number of important public health benefits, such as increasing social support for people who are sero-positive and reducing partner infection. Hence, in the community survey on VCT in Nakuru, Kenya the majority of respondents preferred couple testing (Irungu et al., 2008).

In two antenatal clinics in Lusaka, Zambia, it was found that couple counseled women were more likely to accept HIV testing than women counseled alone (Semrau et al., 2005). Furthermore, studies have shown that the change in risk behavior is particularly great for couples who know their HIV sero-status as they are able to make informed reproductive health choices together (Hope, 2004). In Tanzania the sero-concordant HIV negative couples encouraged couple counseling by indicating that VCT may be an important strategy to encourage negative couples to maintain their negative HIV status (Maman et al., 2001). Moreover, focus group discussion among people living with HIV in Nairobi Kenya revealed that many people are afraid to disclose their HIV status and they may opt for church pastors as common targets for disclosure (Miller and Rubin, 2007). This shows that people still fear disclosing their HIV status to their partners therefore couple counseling has the potential of reducing the stress and the hassle of disclosing HIV positive results to partners.

#### **2.6. VCT in Ethiopia**

Ethiopia responded to the HIV/AIDS epidemic as early as 1985. The Federal Ministry of Health (FMOH) and the HIV/AIDS Prevention and Control Office (HAPCO) developed an HIV/AIDS policy, different guidelines and strategic documents to create an environment conducive for the implementation of HIV prevention, care, treatment and support programs. As part of this effort, the

first counseling and testing guidelines were published by the FMOH in 1996, the second edition in 2002 and the last, currently in use, in 2007 (*FMOH, 2007*).

Since the national VCT guidelines were published in 2002, new information as well as evidence based best practices have become available to make counseling and testing more effective and accessible, creating a need to revise the existing guidelines to steer counseling and testing services to increase access and improve quality more effectively. This will be achieved by implementing various counseling and testing approaches and service delivery models that can appropriately address facility and human resource related needs while maximizing utilization of existing resources (*FMOH, 2007*).

The target groups for VCT in the strategic framework for the national response to HIV/AIDS in Ethiopia included all persons who seek HIV test regardless of any previous risky behavior. It was mentioned that special attention will be given to STI clinics, VCT attendees, FP clinics, ANC clinics, Red Cross Blood Banks, Youth facilities, sex partners of HIV infected persons, persons seeking repeated HIV testing and blood donors (*MOH, 2001*).

Over the last few years, the number of VCT centers and the number of counselor's has increased enormously as a result of efforts made to build the capacity of the institutions. The number of VCT centers recognized by the FMOH has reached 658 in 2005 and has continued to increase. During 2004/05, 41,387 clients got VCT services, while in 2005 the number of clients who received VCT services rose to 367,006. About 200 laboratory technicians and counselors were trained by HAPCO in 2002/03, while 384 counselors were trained in 2003/04, and 75 Laboratory Technicians and 130 counselors were trained in 2005 (*HAPCO 2006*).

## **2.7. Knowledge and attitude towards VCT in Ethiopia**

A study done in Gondar indicated that, the vast majority of the respondents (89.8%) were aware that one could check his/ her HIV status through blood test, and about 98% of respondents felt that VCT services are necessary (*Alemu and etal, 2004*).

In Jijjiga Town, majority of youth (98.5 %) had heard about VCT and mass media was the most frequently reported source of information, and 92% agreed that VCT is important to know serostatus of a person and 98% appealed to be tested. Government organizations were the most preferred sites for VCT 66.5%, followed by private institutions 29.7% and NGO's 7.9%. Willingness to pay for VCT services among Jijjiga youth was only 33.6%, most youth (74.3 %) preferred confidential VCT methods while 25.7% preferred anonymous VCT Model. Youth preferred hospital and youth-center for HIV testing, and wanted cautious, well-mannered, same sex and age or elder counselors. (*Ibid*)

Majority of youth in Jijjiga suggested VCT services to be free of charge. Most preferred physicians to be their counselors, and result to be delivered face to face. Regarding the expansion, the youth in Jijjiga Town recommended VCT for HIV to be available on outreach basis at youth-centers (*Yimam, 2003*).

In a study done in Gondar among high school students, majority of the students had adequate knowledge about HIV/AIDS and VCT while their perception of HIV risk and practice of protected sex is low. Over 82% of respondents approved screening for HIV as a prerequisite for marriage and 97.2% agreed to have a VCT service (*Andargie and etal. 2007*).

## **2.8. VCT utilization**

According to Ethiopia Demography and Health Survey (EDHS) 2005, among both women and men, the proportions ever tested are higher among those under age 30 than among those age 30 and older. Considering marital status, testing rates are highest among never-married women and men who have ever had sex and widowed, divorced and separated men. The highest testing rates are observed among urban residents, particularly Addis Ababa, Harari, and Dire Dawa, those with a secondary or higher education, and those in the highest wealth quintile (*CSA, 2006*).

A study done in Jijjiga Town in 2003, from those tested youth 90.9% were satisfied with the service provided. The reason for not satisfied with the VCT service were; in clarity of the counseling, lack of privacy, no warm reception, unavailability and no link to care and support, lack of confidentiality and expensiveness of fee. According to the providers report, VCT services in hospital and health

center were utilized more by pregnant mothers. Being female, older youth, educated at least to secondary school and being sexually active had statistical significant association with VCT utilization (*Yimam. 2003*).

In a study done among 15-49 years age group in Harar, intention of having VCT in males was more likely in condom users and females who had no previous sexual contact. Males who had no previous sexual contact and have never been married were more likely to report intention of asking their partner to get VCT than their counterparts. In females, the intention of asking their partner to get VCT was more likely in those who had no previous sexual contact and the never married ones. Females whose age is greater than 25 years were less likely to intend to ask their partner for VCT as compared to the age group 25 and younger (*Mohamed F.andetal. 2000*).

In a study done at Asossa, West Ethiopia, only 3.9% ever had an HIV test in the past from the respondents who had known the availability of VCT service. Never married had negative attitude towards HIV testing (*Eshetu2004, pp.75-81*).

In the Afar study (2002), North Ethiopia, the provision of VCT to married couples and pregnant women was accepted by 76.3% of the respondents. Among adult respondents, those in primary education were less likely to will for VCT as compared to secondary and above. Among out of school youth, being female and being Christian were positively associated willingness to take VCT services. Adequate knowledge of the preventive methods and transmission of HIV among out of school youths were positive predictors of willingness for VCT services. Adequate knowledge on preventive methods of HIV, history of previous marriage and shorter duration of stay among female sex workers were positive predictors of willingness for VCT (*Assefa. 2002*).

In a study done in South and North Gondar, 82% of respondents were willing to accept VCT services. The age range 15-19 years and availability of ART were found to be positively associated VCT acceptance. The majorities (74%) of the respondents were willing to pay for VCT services (*Admassu, 2006, pp.24-31*).



Ethiopia has high prevalence of HIV and the commonest mode of transmission is heterosexual, with the highest infection rates concentrated in aged 15–24 years in urban areas. Voluntary Counseling and Testing has been recognized as an effective and pivotal strategy by nations in general and considered as one of the essential prevention interventions to curb the HIV/AIDS pandemic.

HIV testing is essential to the success of VCT program and to improve use of service to facilitate HIV prevention effort in the country in general and in Gelemso town in particular. Therefore, this study was conducted to assess factor contributing to VCT service utilization among youth, which can be helpful in designing and implementing possible interventions.

## **CHAPTER THREE**

### **3. METHODOLOGY**

#### **3.1 Design**

A descriptive cross-sectional study design using quantitative method was employed in this study to assess factors contributing VCT utilization by adolescent high school students in Gelemso town, Ethiopia. The quantitative research approach was considered to be appropriate for this study because it allows a formal and systematic approach to collect information on factors contributing VCT utilization by adolescent high school students in Gelemso town. Students of Gelemso high school were taken as study population. All the students who were volunteered to participate in the survey were included. The sample size was determined using the single population proportion formula. The response rate was 100%.

### **3.2 Universe of the study**

The target population for the study was students from Gelemso high school. Gelemso is one of fourteen districts found in Western Harerghe. Gelemso High school, being the only high school in the town, currently, there are 2231 students (1541 males and 690 females) in the Gelemso district. It was chosen because especially youth lived in Gelemso are involved in risky behaviors like chat chewing. However due emphasis has not been given to assess factors associated with the utilization VCT service among youth in the area.

### **3.3 Study population**

A study population is an aggregate of elements sharing some common set of criteria (Burns & Grove 2001:366). The population is described in terms of the target population, inclusion criteria, and sampling method. The target population in this study will be all senior secondary high school students in Gelemso, aged from 15–19 years and enrolled in grades 9–10 for the 2005 E.C academic year.

### **3.4 Inclusion criteria**

Inclusion criteria will be set of conditions that must be met for a respondent to be included in the sample (Polit & Beck 2004:290). Determining the criteria is essential for the delineation of the study sample (Polit & Beck 2004:290). The inclusion criteria for the research respondents will be the following: Daytime high school students attending senior secondary high school (grades 9–10);

aged 15–18 years because this age group’s knowledge and attitudes are believed to be under continuous change (Griesel-Roux 2004:51).

### 3.5 Sample size

Using a 95% confidence level of certainty ( $\alpha = 0.05$ ) as an assumption, the computed actual sample size for the study will use one sample proportion formula as indicated below (Joubert& Ehrlich 2007:347). Eighty percent was the expected power ( $1-\beta$ ) for the study because it could allow good generalization and since this level is the probability that a test will produce a significant difference at a given significance level if there is in fact a difference (Joubert& Ehrlich 2007:346):

$$n = \frac{(Z_{\alpha/2})^2 p (1-p)}{d^2}$$
$$n = \frac{(1.96)^2(0.093*0.907)}{(0.03)^2} = 360 \quad [\text{Eqn 1}]$$

Adding 5% non-response rate

Total sample size =  $360 + 18 = 378$  respondents

Where:

- $n$  = the required minimum sample size
- level of confidence 95%, which gives the percentile of normal distribution,  $Z_{\alpha/2} = 1.96$
- $d$  (margin of error) = 0.03
- $p$  = proportion of being tested = 0.093
- $1-p$  = proportion of not being tested = 0.907
- Estimated non-response rate in school youth = 5%

Based on the above assumptions, a total of 378 students will be required for the study.

### 3.6 Sampling procedures

A two-stage sampling method was used to select study participants from the high school. The school consisted of grades 9, 10, and sections in each grade will be labeled as A, B, C, D, and E. The number of study subjects from each grade was allocated proportionally to the size of the

respective classes. Then sections to be included in each grade were selected based on simple random sampling method. Students from the selected sections were chosen using systematic random sampling method. The selected students was assembled in a room and then provided with self-administered questionnaire that was filled out in the same room. Data that was collected from students of both genders from each school using proportional sampling. According to Van Dalen (1999:23), proportional sampling provides the researcher with a way of achieving greater representativeness in the sample of the population.

### **3.7 Data collection**

The respondents completed pre-developed, structured, self-administered questionnaires was used for data collection. The questionnaires was pre-tested using the same procedure and with a similar target group. The respondents that were involved in pre-testing will not participate in the actual study. The pre-test findings shown that the questionnaires on the whole are well developed, the questionnaire was employed. What is more, the researcher visited the selected schools, and explained the process to the respondents. All information was collected anonymously and, to ensure the anonymity of the responses, there were no personal identification of the respondents.

### **3.8 Data collection procedure**

After selection of the respondents by random sampling, respondents will be given a consent form to sign. Once completed, these will be placed in a box provided by the researcher and the box will be sealed. In order to preserve anonymity, the consent forms will not be attached to the questionnaires. Additional boxes will provided for questionnaires for each grade. The principal investigator will hand the questionnaires to the respondents after a thorough explanation and after informed consent will be obtained. The respondents then will fill in the questionnaires and drop them into the box provided.

### **3.9 Data entry and analysis**

The principal investigator manually will check questionnaires to ensure that each one had been answered in full. The questionnaires then coded and the data entered and processed by using the Statistical Package for Social Sciences (SPSS) for Windows, Version 17. Frequency and percentage

was used to analyze the collected data and the results was illustrated in the form of frequency tables and depicted graphically in order to provide an overview of the findings.

### **3.10 Research instrument**

The researcher developed a structured questionnaire with mostly closed-ended questions. The questionnaire will be structured to gather Socio- demographic characteristics of respondents, Knowledge about HIV and AIDS transmission prevention, Sexual behavior and perception of personal risk, Information regarding VCT and factors inhibiting //facilitating utilization, Preferences of VCT centers, models, counselor and ways of getting VCT result. The following steps were taken to ensure the reliability of these research instruments:

- The purpose of the study was explained to the respondents in order to obtain their cooperation and participation in the study.
- The researcher was available throughout the data collection process to answer and explain any aspects of the instruments that might have been unclear.
- Questions were made clear. (No medical terms will be used in order to enable respondents to understand what the researcher needed.)