
**TRENDS IN THE PREVALENCE OF HIV/AIDS AND THE KAP OF
YOUTH IN WONCHI WOREDA, SOUTH WEST SHOA ZONE, ORO-
MIA REGIONAL STATE, ETHIOPIA**

MSc. THESIS

MERDASA EDESA

AGUAST, 2016

HARAMAYA UNIVERSITY, ETHIOPIA

**Trends in the Prevalence of HIV/AIDS and the KAP of Youth in Wonchi
Woreda, South West Shoa Zone, Oromia Regional State, Ethiopia**

**A Thesis submitted to the Department of Biology, College of Natural
and Computational Sciences, Postgraduate Program Directorate**

HARAMAYA UNIVERSITY

**In partial Fulfillment of the Requirements for the Degree of
MASTER OF SCIENCE (MSc) IN BIOLOGY**

MERDASA EDESA

AGUAST 2016

HARAMAYA UNIVERSITY, ETHIOPIA

APPRUVAL SHEET

HARAMAYA UNIVERSITY POSTGRADUATE PROGRAM DIRECTORATE

We hereby certify that we have read and evaluate this Thesis entitled Trends in the Prevalence of HIV/AIDS and the KAP of Youth in Wonchi Woreda, South West Shoa, Oromia Regional State, Ethiopia prepared under our guidance by Merdasa Edesa. We recommend that it be submitted as fulfilling the thesis requirement.

Sewnet Mengistu (PhD)
Major Advisor

Signature

Date

Misrak Kebede (PhD)
Co-Advisor

Signature

Date

As a member of the Board of Examiners of the MSc Thesis Open Defense Examination, we certify that we have read and evaluated the Thesis prepared by Merdasa Edesa and examined the candidate. We recommend that the thesis be accepted as fulfilling the Thesis requirements for the degree of Master of Science in Biology.

Chairperson

Signature

Date

Internal Examiner

Signature

Date

External Examiner

Signature

Date

Final approval and acceptance of the Thesis is contingent upon the submission of its final copy to the council of Graduate committee (CGC) through the candidate's department or school graduate committee (DGC or SGC).

DEDICATION

I dedicated this thesis manuscript to my father, Edesa Gemene and my mother Tatu Dinkisho as well as my loving and supportive wife, Tsehay Duguma for nursing me with affection and love and their dedicated partnership in the success of my life.

STATEMENT OF THE AUTHOR

By my signature below, I declare and affirm that this Thesis is my own work. I have followed all ethical and technical principles of scholarship in the preparation, data collection, data analysis and compilation of this Thesis. Any scholarly matter that is included in the Thesis has been given recognition through citation.

This Thesis is submitted in partial fulfillment of the requirements for a Master of Science (MSc) degree at the Haramaya University. The Thesis is deposited in the Haramaya University Library and is made available to borrowers under the rules of the Library. I solemnly declare that this Thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

Brief quotations from this Thesis may be made without special permission provided that accurate and complete acknowledgement of the source is made. Requests for permission for extended quotations from or reproduction of this Thesis in whole or in part may be granted by the Head of the School or Department when in his or her judgment the proposed use of the material is in the interest of scholarship. In all other instances, however, permission must be obtained from the author of the Thesis.

Name: Merdasa Edesa

Signature: _____

Date of submission: _____

Haramaya University

BIOGRAPHICAL SKETCH

The author was born in Dandi District, West Shoa Zone, Oromia Regional State in March 7, 1985. He attended his elementary education in Awaro Elementary School in Ambo 03 Kebele, West Shoa Zone Oromia. He attended his secondary and preparatory school education (9-12 grade) in Ginchi Secondary and Preparatory School at Ginchi town from 1992-1996. Then he joined Arba Minch University in 1997 and Graduated with Bachelor of Science degree in Applied Biology in July 2000.

Following his graduation he was employed in Ministry of Education and worked in Wonchi District, South West Shoa Zone, Oromia region. By the permission of the District, the author joined the Post Graduate Program Directorate in Haramaya University to pursue MSc degree in Biology in summer program in 2014.

ACKNOWLEDGEMENT

First I would like to extend my heartfelt gratitude and thanks to the almighty God and then to my major advisor Dr. Sewnet Mengistu and co-advisor Dr. Misrak Kebede for their unre-served advice, comment, support and provision of timely and valuable advice and ideas for the accomplishment of this thesis work. I would also like to thank Ministry of Education for supporting the research project financially. I gratefully acknowledge the study participants for their voluntary participation and Tsehay Duguma who has devoted her time for recruiting data collectors and facilitating the data collection process. I am indebted to thank my friend Beleta Furgasa for his assistance, support, friendship monitoring and advice and behind me every time in need. Lastly I'm grateful to thank all others who have helped me in one way or other way round for the accomplishment of this thesis work.

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency syndrome
ANC	Antenatal Care
CC	Community Conversation
CDC	Center for Disease Control
CSA	Central Statistics Agency
DHS	Demographic Health Survey
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counseling
IMAI	Integrated Management of Adolescent
KAP	Knowledge, Attitude and Practice
NAC	National AIDS Counseling
NGO	Non-Governmental Organization
PMTCT	Prevention of Mother-to Child Transmission
SIT	Sexually Transmitted Infection
UNAIDS	United Nations program on AIDS
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

TABLE OF CONTENTS

DEDICATION	iv
STATEMENT OF THE AUTHOR	v
BIOGRAPHICAL SKETCH	vi
ACKNOWLEDGEMENT	vii
ABSTRACT	
xiii	
1. INTRODUCTION	1
2. LITERATURE REVIEW	5
2.1. HIV	5
2.2. AIDS	5
2.3. HIV/AIDS Transmission	6
2.4. HIV Counseling and Testing	7
2.5. HIV/AIDS Prevention and Treatment	9
2.6. Impact of HIV/AIDS	10
2.6.1. Economic Impact of HIV/AIDS	10
2.6.2. Impact of HIV/AIDS on Social and Family	11
2.7. Epidemiology of HIV/AIDS	12
2.7.1. Current Global HIV/AIDS Profile	12
2.7.2. Epidemiology of HIV/AIDS in Ethiopia	15
2.8. Response to HIV/AIDS	17
2.8.1. Global Response	17
2.8.2. National Response	18
2.9. Youth Groups Impact on HIV/AIDS Prevention	19
3. MATERIALS AND METHODS	21

(Continues)

3.1. Descriptions of the Study Area	21
3.2. Design of the Study	21
3.3. Sampling Size Determination	22
3.4. Sampling Techniques	22
3.5. Method of Data Collection	23
3.5.1. Collection of Health Office Record	23
3.5.2. Collection of Blood Test Result	24
3.5.3. Questionnaire Survey	25
3.6. Data Analysis	25
3.7. Ethical Clearance	26
4.1. Socio- Demographic Characteristics of HIV/AIDS Patient	27
4.2. Trends of HIV/AIDS Prevalence	28
4.3. Socio-Demographic Characteristics of Blood Tested Participant	31
4.4. Blood Test Result of participant	32
4.5. Distribution of HIV/ AIDS in Each Seven Kebeles in the Study Area	33
4.6. Socio- Demographic Characteristics of Participant Youth	45
4.7. Knowledge, Attitude and Practice of Youth	46
4.8. Analysis of Socio Demographic Characteristics, KAP and Blood Test	49
5. SUMMERY AND CONCLUSION	50
7. REFERENCE	52
8. APPENDIX	57

LIST OF TABLES

Table	Page
1. Global and regional statistics	13
2. HIV Prevalence and Incidence by Region	14
3. The sample size of the stud	23
4. HIV test algorithm	24
5. Socio- demographic characteristics of HIV/AIDS patient	28
6. Socio- demographic characteristics of the blood tested subject	32
7. Blood test result of the study participant	33
8. Distribution of HIV/AIDS in each sample Kebles	34
9. Socio- demographic characteristics of youth	35
10. Knowledge, attitude and practice of youth	37

LIST OF FIGURES

Figure	Page
1. HIV prevalence by region	13
2. Wonchi administration area	19
3. Graphical representation of trends in HIV/AIDS prevalence from 2011-2015	28
4. Graphical representation of HIV/AIDS prevalence by age from 2011-2015	28

TRENDS IN THE PREVALENCE OF HIV/AIDS AND THE KAP OF YOUTH IN WONCHI WOREDA, SOUTH WEST SHOA ZONE, OROMIA REGIONAL STATE, ETHIOPIA

ABSTRACT

The introduction and spread of the human immunodeficiency virus (HIV) into the global human population may have first emerged among humans in the early part of the 20th century. HIV/AIDS is the common cause of death and morbidity among sexually active individuals in sub-Saharan Africa including Ethiopia. The main objective of this study was to assess trends in the prevalence of HIV infection in the selected group of participants in Wonchi Woreda and the Knowledge, Attitude and Practice of youth in HIV/AIDS transmission and prevention strategies. Secondary data was obtained through assessing patients' records from the Woreda health Office and blood test was conducted to identify the prevalence of HIV/AIDS among the people who have visited in the study area. The study has shown that HIV/AIDS was more prevalent in female than in male with a range of 1.1%. Youths were the most vulnerable group in the community. The prevalence of HIV/AIDS among the study subject was 4.5 and decreasing from year to year. More than 84% of the youth groups were knowledgeable about HIV/AIDS transmission and prevention. The number of HIV infected individual highest in 2011 followed by 2012, 2013, 2014 and 2015 accounted 84, 64, 57, 49 and 35 respectively. Generally the new HIV infection decreasing as the knowledge, attitude and practice of the community increase to prevent the spread of HIV/AIDS.

Key word/phrases: *Attitude, HIV, Prevalence, Wonchi, Youth*

1. INTRODUCTION

Worldwide, HIV/AIDS poses an enormous challenge on the survival of mankind. The HIV pandemic remains the most serious of infectious disease challenges to community 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 program. 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 (WHO, 2012).

According to the estimates from UNAIDS (2011), there were 36.9 million people living with HIV in 2014, up from 29.8 million in 2001, as the result of continuing new infections, people living longer with HIV, and general population growth in the world. The global prevalence rate (the percent of people ages 15-49 that are infected) has leveled since 2001 and was 0.8% in 2014, 1.2 million People died of AIDS in 2014, a 42% decrease since 2004. Globally, young women ,aged 15-24, have HIV infection rates twice as high as in young men, and account for 22% of all new HIV infection and 31% of new infections in sub- Sahara Africa. Among young people living with HIV, nearly 80% (4 million) live in sub-Sahara Africa (WHO, 2012).

Between 2001 and 2012, new HIV infections fell among young women and men aged 15–24 in the world except the Middle East and North Africa. In the Middle East and North Africa, new HIV infections among this age group increased by approximately 50% during this period. By contrast, in sub-Saharan Africa, the number of new HIV infections among young people declined by 36 % from 2001 to 2012 and by 55% in the Caribbean. Global, regional and even country data, however, do not adequately describe the heterogeneity and reality of key locations and micro epidemics; therefore, countries need to look closely at the epidemiology of their epidemics and focus responses accordingly (UNAIDS, 2015).

In Ethiopia there were an estimated 793,700 people living with HIV including 200,300 children in 2013. There were approximately 45,200 AIDS related deaths in 2013 and about 898,400 AIDS orphans in the same year. HIV adult prevalence is estimated at 1.5% in 2011, the year in

which the last Ethiopian Demographic Health Survey (DHS) was conducted. However prevalence varies according to age, sex, gender and geographical location. According to the 2011 DHS adult prevalence was almost twice as high among females compared to males at 1.9% versus 1.0% respectively. The distribution of HIV prevalence also varies by age, peaking earlier in females in the 30-34 years age group compared to 35-39 years in males (UNICEF, 2013).

Although the youth are among the most vulnerable groups to HIV infection, they are the most promising agents of behavior change. If behavior change is to be effective, it should involve the youth itself in the generation of appropriate messages and should also address socio-economic and cultural realities that influence sexual behavior. Youth represent an opportunity to end the AIDS epidemic through leadership and behavioral and social changes which would have an impact on new HIV infections, AIDS related deaths and the way the world responds to HIV and AIDS. Those working to prevent the spread of HIV/AIDS and mitigate its impact increasingly recognize the links between HIV/AIDS, youth, and poverty. Developing institutions that bring together youth for economic advancement also helps prevention, care and support efforts. When youth belong to an organization that helps them and provides opportunities, they better avoid risky behaviors, including those that might lead to HIV/AIDS. However, recent reviews of adolescent livelihoods programs have found that relatively few efforts explicitly link youth livelihoods activities and HIV/AIDS prevention, care and support; and few programs have been well-documented or rigorously evaluated (HAPCO, 2012).

Misconceptions and lack of awareness by the public about HIV/AIDS might have contributed to the spread of the disease. Lack of access to information, education and counseling about the disease also contribute to continued high-risk behaviors (WHO, 2013).

HIV treatment includes the use of combination antiretroviral therapy to attack the virus itself, and medications to prevent and treat the many opportunistic infections that can occur when the immune system is compromised by HIV. In released new treatment guidelines which recommend starting treatment of HIV earlier in the course of illness (UNICEF, 2013).

Most of the study conducted in Wonchi Woreda has shown the prevalence of HIV/AIDS among ANC who visited the woreda Clinics. Such type of study may not give information

about the prevalence and incidence of HIV/AIDS at Woreda or Kebele level among all social groups. The trends of HIV prevalence were unknown in that studying since there was no a retrospective studies in the study site. From the past to the present the status of HIV/AIDS was changed but its level of distribution was not recognized in the studies conducted before this studying. Even though different activities were done at school and in different governmental and nongovernmental organization to change the perception of the society towards HIV/AIDS, the KAP of youth in HIV transmission and prevention was not identified. In this studying trends in the prevalence of HIV/AIDS and the KAP of youth was assessed to identify how the prevalence of HIV go on, what is the present HIV/AIDS status in relation to the past and how youths perceive HIV/AIDS transmission and prevention.

Objectives of the Study

General Objective

- 📌 To assess trends in the prevalence of HIV/AIDS and the KAP of youth in Wonchi Woreda, South West Shoa

Specific objectives

- 📌 To assess the trends in the prevalence of HIV/AIDS in wonchi woreda
- 📌 To conduct retrospective study on the trends of HIV/AIDS prevalence
- 📌 To determine the KAP of youth groups in HIV/AIDS transmission and prevention

Research question

- 📌 To where the trends in the prevalence of HIV/AIDS were proceed in Wonchi woreda?
- 📌 What was the prevalence of HIV/AIDS in the study subjects in relation to the past?
- 📌 How the Youths were perceive the transmission and prevention of HIV/AIDS in wonchi woreda?

2. LITERATURE REVIEW

2.1. HIV

HIV stands for human immunodeficiency virus. If left untreated, HIV can lead to the disease known as AIDS (acquired immunodeficiency syndrome). Unlike some other viruses, the human body can't get rid of HIV completely. HIV attacks the body's immune system, specifically the CD4 cells (T cells), which help the immune system fight off infections. If left untreated, HIV reduces the number of CD4 cells (T cells) in the body, making the person more likely to get infections or infection-related cancers. Over time, HIV can destroy so many of these cells that the body can't fight off infections and disease. These opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS, the last state of HIV infection (UNICEF, 2014).

No effective cure for HIV currently exists, but with proper treatment and medical care, HIV can be controlled. The medicine used to treat HIV is called antiretroviral therapy or ART. If taken the right way, every day, and this medicine can dramatically prolong the lives of many people with HIV, keep them healthy, and greatly lower their chance of transmitting the virus to others. Today, a person who is diagnosed with HIV, treated before the disease is far advanced, and stays on treatment can live a nearly as long as someone who does not have HIV. The only way to know for sure if somebody has HIV is to get tested. Testing is relatively simple. Somebody can ask the health care provider for an HIV test. Many medical clinics, substance abuse programs, community health centers, and hospitals offer them too (UNICEF, 2012).

2.2. AIDS

AIDS stands for acquired immunodeficiency syndrome. AIDS is the final stage of HIV infection, and not everyone who has HIV advances to this stage. AIDS is the stage of infection that occur when the immune system is badly damaged and the infected one become vulnerable to opportunistic infections. When the number of CD4 cells falls below 200 cells per cubic millimeter of blood (200 cells/mm^3), the patients are considered to have pro-

gressed to AIDS. (Normal CD4 counts are between 500 and 1,600 cells/mm³) (Shisana. *et al*, 2013).

2.3. HIV/AIDS Transmission

HIV is transmitted through unprotected sexual intercourse (anal or vaginal), transfusion of contaminated blood, sharing of contaminated needles, and between a mother and her infant during pregnancy, childbirth and breastfeeding. The most advanced stage of HIV infection is acquired immunodeficiency syndrome. Worldwide, sexual intercourse is the predominant mode of transmission, accounting for approximately 80 percent of infections. Sexual intercourse accounts for more than 90 percent of infections in Sub-Saharan Africa. Although many people who know they are infected reduce their risk behaviors, studies in developed countries suggest that a substantial percentage nevertheless continue to engage in unprotected sex. The risk of sexual transmission is determined by behaviors that influence the likelihood of exposure to an infected individual and by infectivity in the event of exposure. This also includes factors related to the infectiousness of the infected partner and the susceptibility of the uninfected partner. Infectivity is the per contact infectivity of HIV from sexual transmission varies depending on sexual activity. Anal intercourse carries a higher transmission probability than penile-vaginal intercourse, and male-to-female transmission is more likely than female-to-male transmission (Stover. *et al*, 2012).

The probability of becoming infected through an HIV-contaminated blood transfusion is estimated at more than 90 percent (UNAIDS, 1997), and the amount of HIV in a single contaminated blood transfusion is so large that individuals infected in this manner may rapidly develop AIDS. Currently, between 5 and 10 percent of HIV infections worldwide are transmitted through the transfusion of contaminated blood products. Setting up and maintaining a safe blood supply will virtually eliminate HIV transmission through transfusions (WHO, 2012).

Transmission through breastfeeding is likely associated with an elevated viral load in the breast milk, which in turn is associated with maternal plasma viral load and CD4 T cell levels. Mastitis has also been associated with increased risk of vertical transmission. Meta-

analyses suggest that the cumulative probability of HIV infection increases from 0.6 percent at age 6 months to 9.2 percent at age 3. A study in Malawi, however, indicates that most transmission occurs in the early breastfeeding months, with an incidence per month of 0.7 percent at age 1 to 5 months, 0.6 percent at age 6 to 11 months, and 0.3 percent at age 12 to 17 months (Emmanuel. *et al*, 2013).

2.4. HIV Counseling and Testing

A positive HIV test can be confirmed within one month of infection. Infection is diagnosed in two ways: by a biological test that detects the presence of HIV antibodies or by diagnosis of an opportunistic infection that is a clear sign of HIV disease. The most widely used biological test in high-income countries, conducted in a laboratory on a blood sample, and is called an ELISA (enzyme-linked immune sorbent assay). Obtaining a result may take several days. Rapid tests that can provide results in 20 minutes are being used more widely as their costs fall. When the prior probability of infection is low and resources are abundant, following up an initially positive ELISA with a second ELISA and even a Western blot test if the second ELISA is positive may be appropriate (Fenton, 2011).

However, in a high-prevalence environment where the prior probability is high and resources are scarce, such an approach is almost certainly not cost-effective. Each additional confirmatory test decreases the number of false positive results, thereby averting the costs associated with such a result. The costs of averting a false positive result range from US\$425 with a single confirmatory rapid test or ELISA to more than US\$500,000 for a confirmatory Western blot test following two positive ELISAs as the prevalence of HIV in patients who are clinically suspected of being infected is varied from 5 to 50 percent (Lemessa, 2005).

HIV testing has always been seen as a major tool in the fight against HIV/AIDS. HIV counseling and testing (HCT) is a corner stone for early access to prevention as well as to care and support services. Despite the personal implications of knowing one's HIV status might be expected that everyone would want to get tested particularly in areas of high HIV prevalence like urban Africa. But the vast majority of HIV infected people don't know their HIV status. In a study done in Addis Ababa, regarding reasons of the unmet need group (180) for not de-

manding pre-marital VCT, the most commonly cited reasons were not perceiving oneself at risk (57.8%) followed by no consideration at all (23.9%), afraid of positive result, (15.6%) and fear of stigma (3.9 %). In contrast to the industrialized countries, many HIV infected people in developing countries including Ethiopia do not know their HIV status. A country wide BSS reported that only 4.6% of youth having had VCT for HIV in 2000. The rate of VCT service utilization among TB patients was only 6.6% as described in one cross-sectional study in northern Ethiopia (Stover, 2013).

Studies on the factors why people may not want to learn their HIV status among youth and pregnant women commonly cited are low risk perception, fear of stigma and discrimination, lack of perceived benefits of VCT, fear of partner's reactions, and unable to cope with positive test. Still, in many high-prevalence countries, fewer than one in ten HIV-positive individuals are aware that they are infected with the HIV virus. There has been widespread concern about the slow uptake of VCT in many parts of sub-Saharan Africa. In an attempt to increase the uptake of HIV testing and ART, in June 2004, as part of a change in testing policy recommendations, UNAIDS and the World Health Organization recommended the routine offer of HIV testing by health care providers in a wide range of clinical encounters. The goal of routine testing is to increase the proportion of individuals aware of their status, and thereby reduce "HIV exceptionalism," lessen HIV-related stigma, and provide more people access to life-saving therapy. While provider-initiated approaches to testing are gaining popularity, there have been concerns that routine testing policies are potentially coercive, that counseling will no longer be practiced, that people may be dissuaded from visiting their doctors for fear of being tested, and that this policy may increase testing-related partner violence (Ferguson, 2013).

Following the joint UNAIDS and World Health Organization guidance in 2004, over the past two years there has been increasing movement in African countries towards a model of HIV testing and counseling that makes the HIV test a routine part of medical care in countries. Testing, they argue, is the gateway to HIV treatment and an essential component of prevention programmes. Community-based cross-sectional study in Botswana, found that 81% of people reported that they were either 'extremely' or very much in favor of routine testing, and 68% of the sample felt that they could not refuse a test. Just under half of those questioned

(48%) had undergone testing (a much higher proportion than seen in other African countries). But the key barriers to testing were the same as those the world over: fear of learning one's HIV status, lack of perceived HIV risk and fear of having to change one's sexual practices (Koenig. *et al*, 2011).

Researchers in Uganda looked at the effects of introducing routine testing on the clinical profile of HIV-positive patients in their care, and found that over the course of a year, routine testing shifted the profile strongly towards asymptomatic patients who needed less intensive clinical management when they started treatment. Prior to routine testing 65% of patients had CD4 counts below 200 and three-quarters were symptomatic. After routine testing was introduced, the proportion with CD4 counts below 200 fell to 45% and the proportion that were symptomatic fell to 55%. Studies on acceptability of routine testing in different parts of Africa has shown that, in pilot and clinical trials, when HIV counseling and testing is routinely offered by health providers, the acceptability rate of HIV testing is reported to be satisfactorily high, reaching 90 to 100% of patients attending TB clinics in several countries. For instance, 91% of TB patients in Guyana, 99% in South Africa, and 91% of TB patients in Malawi were accepted and tested for HIV. From studies conducted in Ethiopia, acceptance of HIV counseling and testing under routine care in Addis Ababa and southern Ethiopia was found to be 57.8% and 35% among TB patients (Shisana. *et al*, 2013).

2.5. HIV/AIDS Prevention and Treatment

Numerous prevention interventions exist to combat HIV, and new tools, such as vaccines, are currently being researched. Effective prevention strategies include behavior change programs, condoms, HIV testing, blood supply safety, harm reduction efforts for injecting drug users, and male circumcision. Additionally, recent research has shown that providing HIV treatment to people with HIV significantly reduces the risk of transmission to their negative partners and the use of antiretroviral-based microbicide gel has been found to reduce the risk of HIV infection in women. Pre-exposure antiretroviral prophylaxis (PrEP) has also been shown to be an effective HIV prevention strategy in individuals at high risk for HIV infection. Experts recommend that prevention be based on “knowing your epidemic,” that is, tailoring prevention to the local context and epidemiology, and using a combination of prevention strategies,

bringing programs to scale, and sustaining efforts over time. HIV treatment includes the use of combination antiretroviral therapy to attack the virus itself, and medications to prevent and treat the many opportunistic infections that can occur when the immune system is compromised by HIV. In 2013, WHO released new treatment guidelines which recommend starting treatment of HIV earlier in the course of illness (UNICEF, 2013).

Combination ART, first introduced in 1996, has led to dramatic reductions in morbidity and mortality, and access has increased in recent years, rising to 15 million people as of March 2011, achieving a goal set by world leaders in 2011 to have 15 million people on treatment by 2015. Globally, 40% of people living with HIV are receiving treatment, which includes 41% of adults and 32% of children living with HIV. Approximately 76% of all people receiving antiretroviral therapy in sub-Saharan Africa are virally suppressed, which means they are likely healthier and less likely to transmit the virus. The percentage of pregnant women receiving ART for the prevention of mother-to-child transmission of HIV increased to 73% in 2011, up from 36% in 2009. Access to ART among children has also risen significantly, although they have less access than adults (Dowshen, 2011).

2.6. Impact of HIV/AIDS

2.6.1. Economic Impact of HIV/AIDS

HIV/AIDS is costly to most households and communities. During periods of illness, medical costs rise, work and incomes are disrupted, family members are drawn away from work to provide care and in some instances children have to work to supplement household incomes. After death, funerals can be costly, sometimes more than the amount previously spent on medical care. The loss of an adult undermines a family's income generating abilities, adding to the work burden of surviving family members, including children. AIDS-affected families may experience rapid transition from relative wealth to relative poverty. For poorer and rural households, the ability to cope with external shocks, such as drought or increases in the prices of staple products, will be reduced further. What stands out from numerous studies over the past decade is how HIV/AIDS induces impoverishment of many (but not all, and how many in a particular community or region is unclear) affected households. Income is lost and assets

are sold or rented in order to get cash. Widespread disinvestment of assets appears to be occurring as households spend their savings and wealth to cope with HIV/AIDS (Henry, 2010).

2.6.2. Impact of HIV/AIDS on Social and Family

Morbidity and mortality due to HIV/AIDS and related illnesses is concentrated among adults between the ages of 25 and 50. People in this age group are often described as at the prime of their productive years, working and raising families. Illness and death of adult members of a household reduces the ability of households to provide for themselves. Dependency ratios increase, as fewer adults care for children and the elderly. Increasingly, older members of extended families assume a greater role in caring for and supporting remaining family members. As important as an adult death is whether that person was a woman or a man. The loss of a male adult can leave the remaining women and children with fewer economic opportunities and less control over productive assets, including equipment and land. The loss of a female may result in increased malnutrition and generally less care for the children. Especially in high prevalence countries, the impact of HIV/AIDS on mortality, life expectancy, and household structures is increasingly evident (Rosenberg. *et al*, 2013)

The burden of care on households is significant. A study of urban and rural households in the South African Free State Province found that caregivers devoted four hours a day to caring for sick relatives, including additional time to accompany a sick relative to a health facility. Interestingly, for most caregivers, the assistance they provided came on top of regular work. When a person became terminally ill, the time devoted to care nearly doubled, to 7.5 hours per day. A household survey in Côte d'Ivoire found no respondents with AIDS hospitalized over the four months of the last survey round, indicating that care was provided at home. Further, urban-based relatives often return to a rural home when they become too sick to work or care for themselves, thereby shifting primary care giving to family members. On the other hand, some rural-based civil servants apply for transfers to urban posts when they become ill, so as to be closer to medical facilities (Wilkins, 2013).

As young and middle-aged adults die of HIV/AIDS, hundreds of thousands of children are orphaned. The growing number of orphaned children is most evident in southern and eastern

Africa, but such girls and boys can be found wherever HIV/AIDS is present. Although children are orphaned for a number of reasons, by 2010 in Zambia, Swaziland, and Namibia, 75 per cent of all orphans will be due to AIDS. Though the absolute numbers are important, perhaps more important is the speed at which the numbers are increasing, indicating the mushrooming pressures on households, communities, government services, and civil society to address the needs of orphaned children. Local community leaders regularly report that their groups are overwhelmed by the number of orphaned children they find and who need various forms of assistance. In addition to the daily care of people ill with HIV/AIDS or related illnesses, the care of children while a parent is dying and after the death is a major burden for immediate and extended families. Increasingly, one hears that the extended family system is overwhelmed by the magnitude of the burden of caring for so many orphaned children (Fenton, 2011).

2.7. Epidemiology of HIV/AIDS

2.7.1. Current Global HIV/AIDS Profile

According to the latest estimates from UNAIDS, there were 36.9 million people living with HIV in 2014, up from 29.8 million in 2001, the result of continuing new infections, people living longer with HIV, and general population growth. The global prevalence rate (the percent of people ages 15-49 that are infected) has leveled since 2001 and was 0.8% in 2014. 1.2 million People died of AIDS in 2014, a 42% decrease since 2004. Deaths have declined due in part to antiretroviral treatment (ART) scale-up. HIV is a leading cause of death worldwide and the number one cause of death in Africa. New HIV infections globally have declined by 35% since 2000. In 61 countries, new HIV infections have decreased by more than 20%. Still, there were about 2.0 million new infections in 2015 or about 5,600 new infections per day. Most new infections are transmitted heterosexually, although risk factors vary. In some countries, men who have sex with men, injecting drug users, and sex workers are disproportionately affected by HIV/AIDS (UNAIDS. 2015).

Although HIV testing capacity has increased over time, enabling more people to learn their HIV status, nearly half of all people with HIV are still unaware they are infected. HIV has led

to a resurgence of tuberculosis (TB), particularly in Africa, and TB is a leading cause of death for people with HIV worldwide. In 2013, approximately 13% of new TB cases occurred in people living with HIV. However, between 2004 and 2014 TB deaths in people living with HIV declined by 33%, largely due to the scale up of joint HIV/TB services (UNICEF, 2013).

Table 1: global and regional statistics (UNAIDS, 2013)

Years	2007	2008	2009	2010	2011	2012	2013
People living with HIV	32.7 million	33.1 million	33.4 million	33.8 million	34.2 million	34.6 million	35.0 Mill-
New HIV Infections (Total)	2.7 million	2.6 million	2.5 million	2.5 million	2.4 million	2.2 million	2.1 Mill-
New HIV infections (adults)	2.2 million	2.2 million	2.1 million	2.1 million	2.1 million	2.0 million	1.9 Mill-
New infections (children)	490 000	460 000	400 000	360 000	33 0000	27 0000	24 0000
AIDS-related deaths	2.2 million	2.1 million	2.0 million	1.9 million	1.8 million	1.7 million	1.5 mill
People access to treatment	-	-	5.2	7.4	9.0	10.6	12.9

Women represent approximately half (51%) of all adults living with HIV worldwide. HIV is the leading cause of death among women of reproductive age. Gender inequalities, differential access to service, and sexual violence increase women's vulnerability to HIV, and women, especially younger women, are biologically more susceptible to HIV. Young people, ages 15-24, account for approximately 30% of new HIV infections (among those 15 and over. In sub-Saharan Africa, young women account for 63% of young people living with HIV. Globally, there were 2.6 million children living with HIV in 2014, 220,000 new infections among children, and 150,000 AIDS deaths (UNAIDS, 2015)

Sub-Saharan Africa, the hardest hit region, is home to 70% of people living with HIV but only about 13% of the world's population. Most children with HIV live in this region. Almost all of the region's nations have generalized HIV epidemics that are; their national HIV prevalence rate is greater than 1%. In 9 countries, 10% or more of adults are estimated to be HIV-positive. South Africa has the highest number of people living with HIV in the world (6.8 million).

Table 2: HIV Prevalence & Incidence by Region (UNAIDS, 2015).

Region	Total No. people (% Living with HIV)	Newly Infected	rate
Global Total	36.9 million (100%)	2.0 million	0.8%
Sub-Saharan Africa	25.8 million (70%)	1.4 million	4.8%
Asia and the Pacific	5.0 million (14%)	340,000	0.2%
Western and Central Europe and North America	2.4 million (7)	85,000	0.3%
Latin America	1.7 million (5%)	87,000	0.4%
Eastern Europe and Central Asia	1.5 million (4%)	140,000	0.9%
Caribbean	280,000 (<1%)	13,000	1.1%
Middle East and North Afri- ca	240,000 (<1%)	22,000	0.1%

Swaziland has the highest prevalence rate in the world (27.7%). Recent data offer promising signs, with national HIV prevalence and/or incidence stabilizing or even declining in many countries in the region (UNAIDS, 2015).

An estimated 1.5 million people are living with HIV in the Eastern Europe and central Asia, including 140,000 newly infected in 2014. The epidemic is driven primarily by injecting drug use, although heterosexual transmission also plays an important role. The Russian Federation and Ukraine account for 85% of people living with HIV in the region. An estimated 5.0 million people are living with HIV in Asia and the Pacific. The region is also home to the two most populous nations in the world – China and India and even relatively low prevalence rates translate into large numbers of people (UNAIDS, 2015).

2.7.2. Epidemiology of HIV/AIDS in Ethiopia

According to the 2014 HIV estimates, the national HIV prevalence in Ethiopia is 1.5%, indicating the country has more than achieved the Millennium Development Goal 6 target of 2.5%.

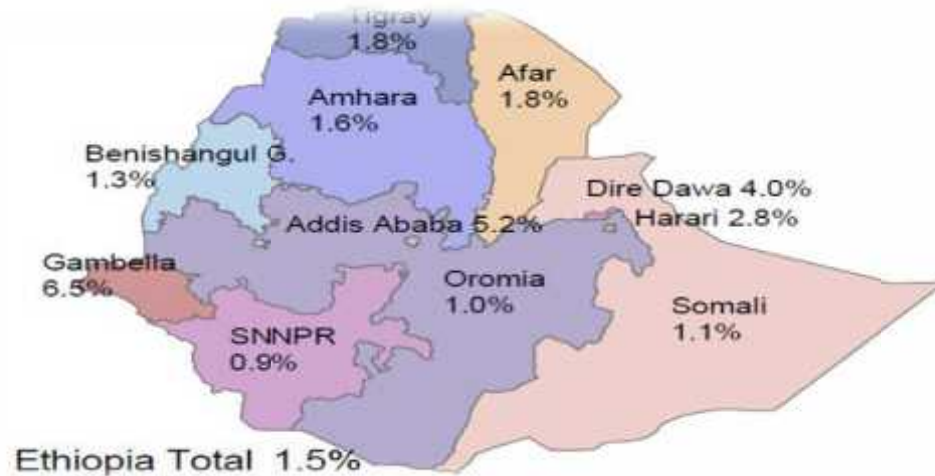


Figure 1: HIV prevalence by region (DHS, 2011)

Annual new HIV infections have also declined by 90% and AIDS-related deaths by 53% in the last decade (between 2000 and 2011). Across all the regions, urban areas are more affected than rural ones, and females are more affected than males by the HIV epidemic. The 2014 estimated number of people living with HIV (PLHIV) was 769 600 with 15 700 new HIV infections and 35 600 AIDS-related deaths. Ethiopia has made significant progress to ensure universal access to treatment of HIV/AIDS and HIV testing and counseling (HTC) services have also expanded with about 9.6 million tests done in 2013/14 alone. Almost 2,500 health facilities are providing prevention of mother-to-child transmission of HIV (PMTCT) services with a national level coverage of 61%. WHO supports the Federal Ministry of Health (FMOH) of Ethiopia in leading and coordinating the national health sector response against the HIV epidemic. WHO is a key player in HIV forums both at national and regional levels in close collaboration with all regarding body and USAID and their implementing partners. A central area of support to the FMOH is the development, adoption and revision of HIV strategies and guidelines, training manuals and tools. Since 2005, WHO has particularly intensified its technical support to the adaptation and national roll out of IMAI (Integrated Management

of Adolescent and Adulthood Illness) guidelines and training tools. Moreover, the Country Office has been a pioneer in promoting the application of task shifting and a public health approach in delivering HIV care and treatment services in Ethiopia. In the post-2015 context, WHO continues to support Ethiopia to strengthen the public health approach to scaling up of HIV/AIDS services through community empowerment. Intensified efforts are targeted at HIV prevention, care and treatment among key and vulnerable populations (DHS, 2011).

The government of Ethiopia has been steadfast in its response to the epidemic. In 1985, prior to the first laboratory diagnosis of HIV in Ethiopia, the government established a national HIV/AIDS task force within the Ministry of Health. In 1987-89 short and medium term plans were drawn out to respond to the budding epidemic. As the epidemic began to spread the government responded by issuing a national AIDS policy, the strategic framework and the establishment of multi-sectoral and broad based National AIDS Council (NAC) and the secretariat, which evolved to the current HIV/AIDS Prevention and Control Office (HAPCO, 2012).

However, the HIV prevention coverage is extremely low in Ethiopia. In 2003, only one in ten pregnant women was offered services for preventing mother-to-child HIV transmission, and an even smaller proportion of adults aged 15-49 years had access to voluntary counseling and testing. Because of the high vulnerability of Ethiopian youth, as in other sub-Saharan countries, the Federal Democratic Republic of Ethiopia Ministry of Youth, Sports and Culture gave a great emphasis on youth and HIV/AIDS to be included in the national youth policy as a strategy (UNAIDS, 2014).

In the effort to curb the course of the pandemic, the role that youth is playing is substantive. Peer education is one behavioral change strategy that has been used in many areas of public health including HIV/AIDS. Several studies showed that HIV/AIDS peer-education results in changes in knowledge, attitude and practice of target groups. This also resulted in increased attendance in STI and VCT services. School and non-school based anti-AIDS clubs are one of the modalities of facilitating HIV/AIDS peer education. The increasing number of anti-AIDS clubs in Africa was considered as an important development in halting the spread of HIV/AIDS in Africa. Formation of anti-AIDS clubs throughout Ethiopia was found to have

engaged the youth population. Such clubs have been mushrooming particularly in schools to contribute to the prevention endeavors through sensitization and creation of awareness about HIV/AIDS among the youth population in particular and the general public at large. However, only 4.5% of these clubs indicated that they got financial support, 40.9% indicated that they got material support and 54.5% got training support. A study indicated that among other organizations 83% of AIDS information provided to the community was by anti AIDS clubs. Although some religious leaders are suspicious about anti AIDS clubs in fear of promotion of condoms, communities as well as parents have gradually developed trust and acceptance towards anti AIDS clubs (NACO, 2012).

2.8. Response to HIV/AIDS

2.8.1. Global Response

International efforts to combat HIV began in the first decade of the epidemic with the creation of the WHO's Global Program on AIDS in 1987. UNAIDS was formed in 1996 to serve as the UN system's coordinating body and to help galvanize worldwide attention to AIDS. The role of affected country governments and civil society also has been critical to the response. Over time, funding by donors and others has increased and several key initiatives have been launched (Henry, 2010).

In 2000, all nations agreed to global HIV targets to halt and begin to reverse the spread of HIV by 2015, as part of the UN Millennium Development Goals (MDGs), and the World Bank launched its Multi-Country AIDS Program (MAP). As of 2015, the AIDS-related targets of MDGs were met. The international community will soon agree upon new Sustainable Development Goals (SDGs), which include a target to end the AIDS epidemic by 2030. In 2001, a United Nations General Assembly Special Session on HIV/AIDS (UNGASS) was convened and the Global Fund was created. More recently, at the June 2011 UNGASS meeting, world leaders adopted a new Declaration that reaffirmed commitments and called for an intensification of efforts to combat the epidemic through new commitments and targets (KFF, 2015).

On World AIDS Day 2014, UNAIDS set targets for 2020 aimed at ending the epidemic by 2030. The targets include achieving “90% of people living with HIV knowing their HIV status; 90% of people who know their HIV-positive status on treatment; and 90% of people on treatment with suppressed viral loads. Most funding has come from international donor governments who disbursed \$8.6 billion in 2014, up from \$1.2 billion in 2002, to address HIV in low- and middle-income countries. Hard hit countries have also provided significant resources to address their epidemics. The Global Fund has committed more than \$17 billion for HIV efforts in more than 100 countries to date, (Bill & Melinda Gates Foundation) and the private sector including foundations and corporations, also plays a major role, particularly the Bill & Melinda Gates Foundation which has committed more than \$2.5 billion for HIV, with additional funding provided to the Global Fund. UNAIDS estimates global HIV funding totaled \$20.2 billion in 2014, however, this total is below the UNAIDS estimate of \$22 to \$24 billion needed to address the impacts of HIV (UNAIDS, 2014)

2.8.2. National Response

The national strategy calls for program at multiple sectors and levels to achieve behavior change and reduce vulnerability to HIV. The core government intervention has been community conversation (CC), a community empowerment intervention designed to be implemented annually in each Kebele (smallest administrative unit of Ethiopia similar to a ward or a neighborhood). The related school CC programmer follows a similar strategy among in-school youth at primary and secondary levels (HAPCO, 2012).

Community conversation is conducted twice a month by organizing groups at kebele level and assigning facilitators to help the group identify issues and facilitate discussion. Groups propose strategies to address identified issues and develop implementation plans. Upon completing a CC cycle the kebele administration organizes a social mobilization conference to discuss and build on the proposed strategies and finally incorporate these into the kebele development plan. Currently the CC program is moving towards being led by health extension workers (HEW) and health development armies (HDAs) to address health and social problems including HIV in a more integrated and effective manner. In 2012/13 CC were conducted in 15,319 kebeles, reaching about 7.6 million people. The number of individuals di-

rectly reached through CC increased significant in 2012/13 compared with the previous year (3.9 million). This dramatic rise largely reflects the high achievement of regions that have adopted the HDA approach (a flagship strategy adopted by the government of Ethiopia for community mobilization (DHS, 2011).

HIV prevention activities implemented within schools (primary, secondary and higher education institutions) include: school CC, peer education, life skill education, strengthening and supporting anti AIDS clubs (AACs) and AIDS resource centers. In 2012/13 CC was implemented in 9,127 schools out of the total number of public and private schools (31,688) corresponding to a coverage of 28.8%. In addition 1,053,609 students were estimated to be reached through peer education from the total high school and TVET student population, which represents coverage of about 30%. A further 9,127 schools provided life skills education representing coverage of 28.2%; there were 1,010 functional youth centers and 901,265 students were estimated to have participated in school clubs (HAPCO, 2012).

Male circumcision at birth is widely practiced in most regions of Ethiopia. Currently 92% of adult males report being circumcised. In Gambella, lower rates of male circumcision are thought to contribute to the particular severity of the epidemic in the region²⁸. Programs to enable, promote and provide voluntary medial male circumcision to at least 80% of adult males are currently underway (DHS, 2011).

2.9. Youth Groups Impact on HIV/AIDS Prevention

Because of the high vulnerability of Ethiopian youth, as in other sub-Saharan countries, the Federal Democratic Republic of Ethiopia Ministry of Youth, Sports and Culture gave a great emphasis on youth and HIV/AIDS to be included in the national youth policy as a strategy. In the effort to curb the course of the pandemic, the role that youth is playing is substantive. Peer education is one behavioral change strategy that has been used in many areas of public health including HIV/AIDS. Several studies showed that HIV/AIDS peer-education results in changes in knowledge, attitude and practice of target groups. This also resulted in increased attendance in STI and VCT services. School and non-school based anti-AIDS clubs are one of the modalities of facilitating HIV/AIDS peer education. The increasing number of anti-AIDS

clubs in Africa was considered as an important development in halting the spread of HIV/AIDS in Africa. Formation of anti-AIDS clubs throughout Ethiopia was found to have engaged the youth population. Such clubs have been mushrooming particularly in schools to contribute to the prevention endeavors through sensitization and creation of awareness about HIV/AIDS among the youth population in particular and the general public at large (UNICEF, 2011).

A study indicated that among other organizations 83% of AIDS information provided to the community was by anti AIDS clubs. Although some religious leaders are suspicious about anti AIDS clubs in fear of promotion of condoms, communities as well as parents have gradually developed trust and acceptance towards anti AIDS clubs. Furthermore, it was learned that communities, the government and political leaders have been providing support to anti AIDS clubs although the extent may vary from place to place (HAPCO, 2012)

3. MATERIALS AND METHOD

3.1. Descriptions of the Study Area

Wonchi woreda is one of the districts in the South West Showa Zone, Oromia Region of Ethiopia which is located 124 km South West of Addis Ababa with the area of 460516 hectare. Wonchi district is bordered on the south by Woliso Woreda, on the west by Amaya Woreda, on the north by Ambo Woreda and on the east by Dandi Woreda. The district is located between elevations from 1798 m to 2118 m above sea level. The administrative center of Wonchi is Chitu (the information taken from Wonchi Woreda Agriculture Office).

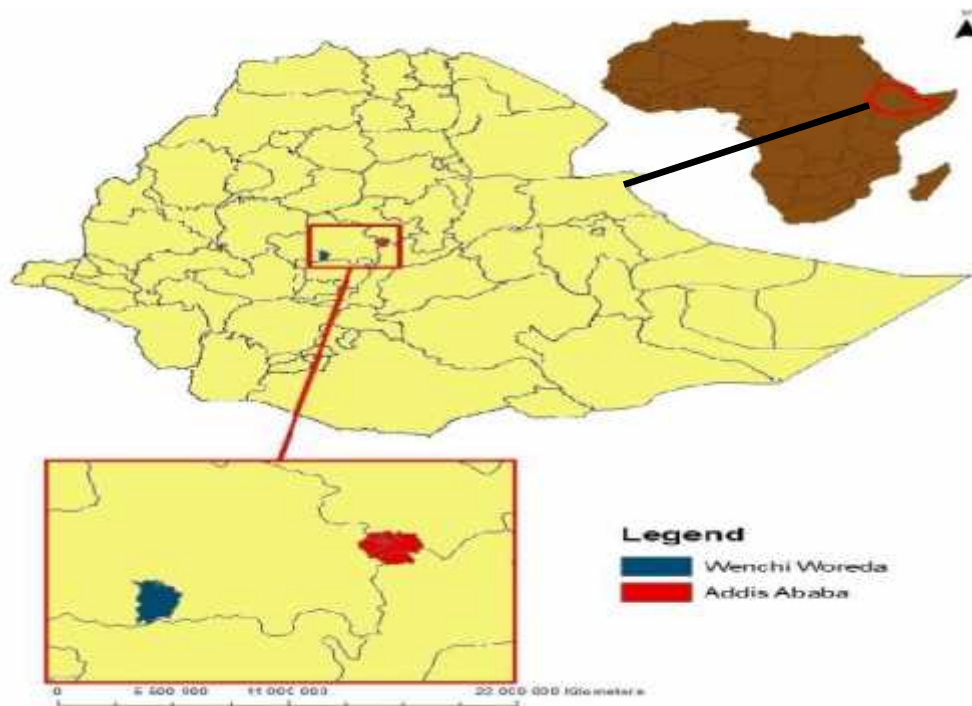


Figure2: Wonchi Woreda administration area

3.2. Design of the Study

The design of the study was a community-based cross-sectional survey to study trends in the prevalence of HIV/AIDS and the KAP of youth groups in HIV/AIDS transmission and pre-

vention. The data was collected from health office record, administration of structured questionnaires and blood test. The study was carried out in seven kebeles of Wonchi Woreda South West Shoa Zone, Oromia Regional State, Central Ethiopia. These seven kebeles were selected randomly based on the land feature of the woreda. Three kebeles were from Dega and four kebeles were from Weinadega.

3.3. Sampling Size Determination

The required sample size was calculated using the stastical formula of estimating a single population proportion for a cross-sectional survey.

$$n = \frac{Z^2 \cdot P(1 - P)}{d^2}$$
 (Kish and Leslie, 1965) n=the number of study subjects enrolled in the study, z = (confidence level) test statistics which allows to calculate the result 95% confidence, which means (1.96), d= the level of precision (5%) expressed as a fraction of 1, so that the sample estimate the proportion to within 5% of the point. p= the proportion of HIV/AIDS positive patient. This was assumed to be 50% since similar studies those determined HIV/AIDS positive patients were not available.

Proportion to be used on estimates which was expressed in decimal (the maximum proportion=50%). The calculated sample size was 384. The non- responsive rate was estimated to be 5% so, the overall sample size was 403. $n = (1.96)^2 \cdot 0.5(1-0.5) / (0.05)^2$; $n = 3.8416 \cdot 0.25 / 0.0025$; $n = 0.9604 / 0.0025$ $n = 384$. $n = 384 + 5\% (384)$; $n = 403$, Therefore the final sample size was 403 volunteers who were answered administered questions and tested their blood.

3.4. Sampling Techniques

According to the list obtained from Wonchi woreda administration bureau, there were 119,736 people of whom 56,059 were men and 63,677 were women. Systematically 403 participants were selected from seven kebeles by proportional allocation to size. The selection of males and females will be intended to be equal in proportion and 203 males and 200 females were participated in the study. For each kebele the sample size was determined by the follow-

ing formula. $n = \frac{n \cdot N}{N}$ n = total sample size, Ni = number of population in one kebele, N= total population of seven kebele, ni = sample size of one kebele

Table 3: The sample size of the stud

No	Study site	Total population	Sample population
1	Darian -01	5645	69
2	Chitu – 01	4257	52
3	Sonkole kake	4125	50
4	Dulele kori	5715	70
5	Meti walga	3988	49
6	Maraga abayi	5231	64
7	Dimtu godeti	4012	49
Total		32973	403

3.5. Method of Data Collection

Quantitative data were collected just moving around the house hold in the pre-determined kebele to identify the KAP of youth in HIV transmission and prevention. No participant's questionnaire was visible to any other participant. Self administered questionnaire was given to the participant youth by the principal investigator and coordinators after explanation of the purpose of the study. The questionnaires were collected by the principal investigator and facilitators upon completion. Secondary data were collected from organized data by refereeing secondary date from already recoded documents at health facilities center. Document was assessed from woreda health office records and clinics to see trend of HIV/AIDS. Blood test result was collected and identified by experienced laboratory technician. The detailed method of data collection tools were listed as follow.

3.5.1. Collection of Health Office Record

The information of the HIV/AIDS patients was very important to study trends in the prevalence of HIV in a particular area or region. This information or file was found at the record office of hospital, health station and governmental and non-governmental clinics. HIV/AIDS

related data records in the Wonchi woreda health office and clinics were collected from the record office file. This data was a five years (2011- 2015) documents assessed information of HIV/AIDS related patient of all age groups of the woreda.

3.5.2. Collection of Blood Test Result

All selected groups were requested to give their blood for HIV/AIDS blood test. Blood sample from a total of 403 individual was collected by pricking their finger-tips with the help of an experienced laboratory technician during the study. Their fingers were first cleaned with alcohol-moistened swab, dried with a piece of dry cotton and was punctured with a disposable blood lancet. In this case first the willingness of the requested groups was identified and recorded. Pre-test counseling service was given to all volunteers. Finally blood test was conducted and the result systematically recoded. Finally post-test counseling service was given.

3.5.2.1. Rapid Diagnostic HIV Test Procedure

The subject information leaflet was given to the subject and subject consent obtained in accordance with local regulations and the kit was allowed and samples to reach room temperature (15 – 27⁰C) for 20 minutes. The required number of KHB HIV devices was removed from their pouches and perform no more than 10 tests simultaneously. The devices were laid on a clean flat surface. Each device was labeled with the appropriate patient information / ID and draw up adequate sample to the first gradation on the pipette using one of the disposable pipettes supplied. All supplied pipettes were used.

Table 4: HIV test algorithm (Dabis, 1999)

KHB	HIV/AIDS Kits		HIV status
	Stat pack	Unigold	
Reactive	Reactive	-	Positive
Reactive	Non reactive	Reactive	Positive
Non reactive	-	-	Negative
Reactive	Non reactive	Non reactive	Negative

As controls were run these must be used as described in the package insert provided with the controls. The pipette was held vertically over the sample port, one drop of sample was carefully added and allowed to absorb. The air bubble was not introduced into the sample port. Holding the bottle in a vertical position, four drops of the wash solution from the dropper bottle were added to the sample port.

The timer was set for 10 minutes and read test results immediately after 10 minutes incubation time. CDC Guidance was followed to report to the test subjects the test results and its interpretation. 10 minutes were allowed from the time of wash solution addition for reaction to occur. The result was read immediately after the 10 minute incubation time (Dabis, 1999).

3.5.3. Questionnaire Survey

Structured questionnaire was developed in English and then translated in local language (Afan Oromo). The questionnaire was pre-tested using 10% of the study subject outside the study area before the beginning of the actual survey. The questionnaire contains the general characteristics of study subject such as age, sex, level of education, income, religion, marital status and the KAP of youth. Finally, the questionnaire was administered to all samples of voluntary youth groups aged 15 to 24 in the study area in order to obtain the information to identify the KAP of youth groups in HIV/AIDS transmission and prevention. Participants who identify correctly the major ways of preventing sexual transmission of HIV and who rejected the major misconceptions were considered as having comprehensive knowledge about HIV/AIDS.

3.6. Data Analysis

All the data were entered and analyzed using an appropriate SPSS software 20 version. Frequency distribution, percentages and correlation were calculated to ascertain the association between dependent and independent variables as appropriate.

3.7. Ethical Clearance

Since it was a community based study, ethical clearance was obtained from the Ethical Review Committee of Haramaya University. In addition the permission of Wonchi Woreda health office administration was asked and attain. Written informed and verbal consent of the participant was taken from study participants after explaining the objectives and methodology of the study in detail.

4. RESULT AND DISCUSSION

4.1. Socio- Demographic Characteristics of HIV/AIDS Patient

A total of 289 HIV/AIDS victims were recorded from health office of wonchi woreda with a mean age of 30.75. Of these, 123 (42.6%) were male and 166 (57.4%) were female. Of HIV/AIDS patient in Wonchi Woreda, 118 (40.8%) were single including children, 112 (38.8%) were married, 59 (20.4%) were divorced. Majority 284 (98.6%) of the study subjects were Oromo followed by Amhara 5 (1.4%). Of the recorded patient 198 (68.5%) victims were able to read and write followed by illiterate accounting 56 (19.4%) and 35 (12.1%) victims were above grade nine by education. Of the participant, 199 (68.9%) were low income, 65 (25%) were medium income and 25 (8.7%) were high income by economic status (table 4).

. The associations between HIV risk and different socioeconomic indicators may have different implications and causes. For instance, at the individual level, people of lower economic status may not have access to protective measures and health care. Relatively the numbers of patients at higher education level were less than the numbers of illiterate and low grade level patient by education. This indicates that education was significantly important in HIV/AIDS transmission and prevention in the study area. Meanwhile, professional people with higher education might have increased knowledge related to health promotion and increased compliance to prevention methods – although professionals with higher income may be at higher risk of HIV through engagement in risky sexual behaviors.

A peak of HIV infection was observed between 15–40 years of age, when both males and females had the highest observed probability of HIV infection. Before age 30, this probability increased quickly as age increased. Beyond age 40 there was a declining probability of infection, although the variation in probability increased rapidly at the same time as age continued to increase. This result supported by a study conducted in Botswana entitled the geography of HIV/AIDS prevalence in 2012. The prevalence of HIV was significantly higher among patient who presented alone than those who presented as couple. The same association was observed in other studies entitled Couples Voluntary Counseling and Testing Service Utilization at Addis Ababa Government Hospital VCT Sites by Dillnessa in 2011. This may be because

of the fact that VCT clients who present alone were more likely to had some risky behaviors, on the other hand, clients may present as couple either because they had less risky behavior or might had tested themselves individually prior to couple presentation.

Table 5: Socio- demographic characteristics of HIV/AIDS patient in study area

Variable	Male (N=123)	Female (N=166)	Total (N=289)
Age			
0-14	14 (4.8%)	13 (4.5%)	27 (9.3%)*
15-29	61 (21.1%)	76 (26.3%)	137 (47.4%)
30-45	36 (12.5%)	50 (17.3%)	86 (29.8%)
Above 45	12 (4.2%)	18 (6.2%)	30 (10.4%)
Religious			
Protestant	60 (20.8%)	62 (21.5%)	122 (42.2%) **
Orthodox	50 (17.3%)	91 (31.5%)	141 (48.8%)
Catholic	10 (3.5%)	8 (2.8%)	18 (6.2%)
Muslim	3 (1%)	5 (1.7%)	8 (2.8%)
Ethnicity			
Oromo	121(41.9%)	163 (56.4%)	284 (98.3%) **
Amhara	2 (0.7%)	3 (1%)	5(1.7%)
Educational status			
Illiterate	38 (13.1%)	18 (6.2%)	56 (19.4%)*
Read and write	82 (28.4%)	112 (38.8%)	198 (68.5%)
Above grade nine	23 (7.9%)	13 (4.5%)	35 (12.1%)
Marital status			
Single	76 (26.3%)	42 (14.5%)	118 (40.8%)*
Married	45 (15.6%)	67 (23.2%)	112 (38.8%)
Divorced	2 (0.7%)	57 (19.7%)	59 (20.4%)
Income			
Low	86 (29.8%)	113 (39.1%)	199 (68.9%)
Medium	23 (7.9%)	42 (14.5%)	65 (22.5%)
High	14 (4.8%)	11 (3.8%)	25 (8.7%)

*= significant ($p < 0.05$), **= non significant ($p > 0.05$)

4.2. Trends of HIV/AIDS Prevalence

From a total of 84 (48.8% male and 51.2% female) of HIV/AIDS patient in 2011, 14 (16.7%) were between the age group of 0-14, 39 (46.4%) were between the age group of 15-29, 22 (26.2%) were between the age group of 30-45 and 9 (10.7%) were the age group of greater than 45 years old. In 2012, the totals of HIV/AIDS victims were 64 (39.1% male and 60.9%

female). Of these 2 (3.1%) were between the age group of 0-14, 34 (53.1) were between the age group of 15-29, 23 (35.9%) were between the age group of 30-45, 5 (7.8%) were above 45 years old. In 2013, a total of HIV/AIDS victims were 57 (38.6% male and 61.4% female). Of these victims, 4 (7%) were between the age group of 0-14, 29 (50.9%) were between the age group of 15-29, 17 (29.8%) were between the age group of 30-45, and 8 (14%) were above 45 years old. From 49 (40.8 male and 59.2% female) HIV/AIDS victims of 2014 year, 5 (10.2%) were between the age group of 0-14, 24 (48.9) were between the age group of 15-29, and 4 (8.2%) were more than 45 years old of age group. In 2015 the HIV/AIDS victims were 35 (37.1% male and 62.9% female). Of these victims 3(8.6%) were between the age group of 0-14, 21 (60%) were between the age group of 15-29, 7 (20%) were between the age group of 30-45 and 4 (11.4%) were more than 45 years age group. HIV prevalence which associated with socio-demographic character of the participant was accounted 84(29.1%) in 2011, 64(22.1%) in 2012, 57(19.7%) in 2013, 49(16.9%) in 2014 and 35 (12.1%) in 2015 respectively (figure 3 and 4).

The prevalence HIV/AIDS was high in 2011 and low in 2015 with a range of 49 (12.2%) differences. Majority of HIV-positives were economically in the productive age group (15-49 ages) among both genders. Specially in this studying the prevalence of HIV/AIDS was high in age group of 15 to 29 ages while it was low at age group of 0 to 14 and above 45 years old. This implies that youths were the most vulnerable group among the social groups.among youth HIV/AIDS was more prevalent in female than in male. Generally the age group 15-29 was the most affected followed by the age group of 30-45 while relatively the low HIV/AIDS prevalence determined in age group of 0 to 14 and above 45 years old.

Globally, HIV prevalence has shown a declined manner as a result of significant progress to ensure universal access to treatment of HIV/AIDS and HIV testing and counseling (HTC) services. In addition to this the national strategy calls for program at multiple sectors and levels to achieve behavior change reduce vulnerability to HIV. The core government intervention has been community conversation (CC), a community empowerment intervention designed to be implemented annually in each Kebele to reduce the number of HIV positive in the country. The responses towards HIV/AIDS prevention from individual to institution were used to reduce HIV/AIDS transmission. HIV prevention activities implemented within

schools (primary, secondary and higher education institutions) include: school CC, peer education, life skill education, strengthening and supporting anti AIDS clubs (AACs) and AIDS resource centers (HAPCO. 2012). There was a gender based variation in prevalence between males and females. Gender inequalities, differential access to service, and sexual violence increase women's vulnerability to HIV, and women, especially younger women, were biologically more susceptible to HIV.

HIV-prevalence

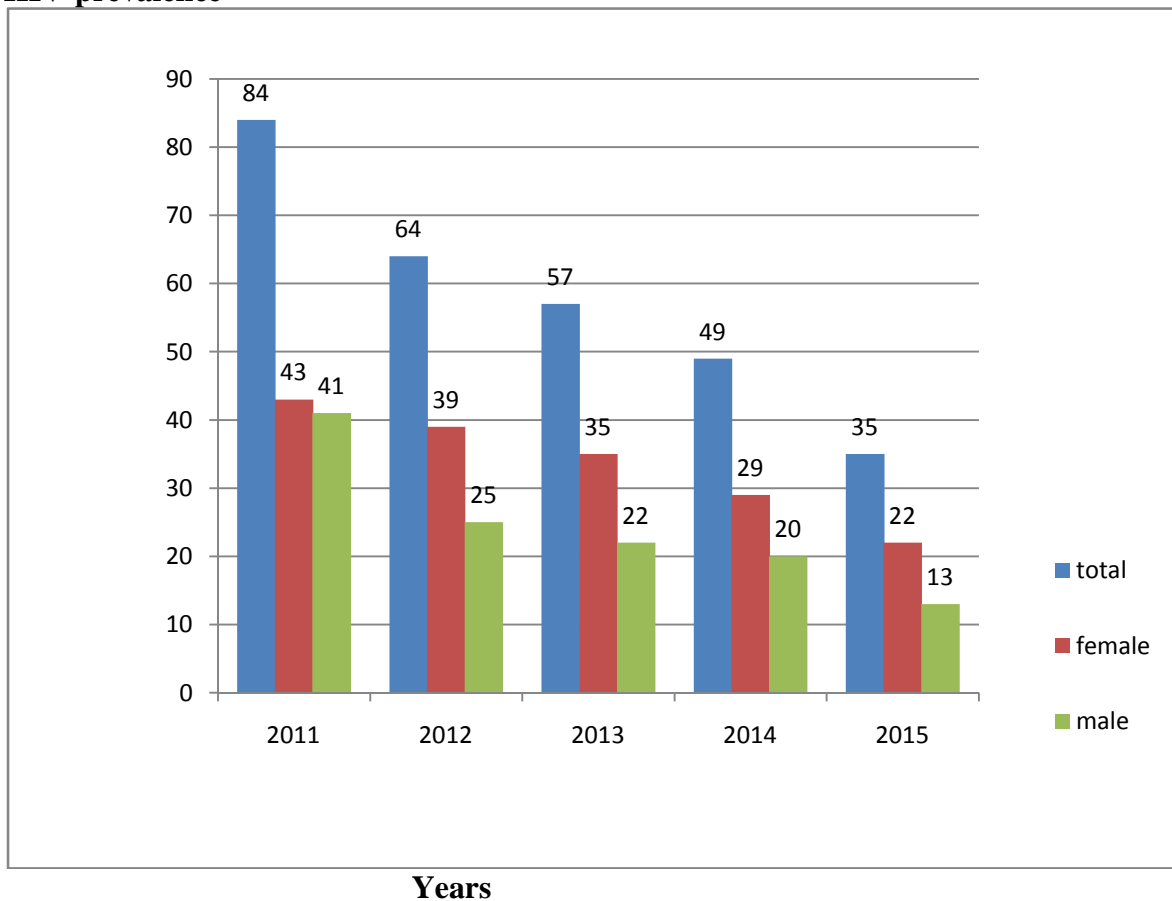


Figure 3: Graphical representation of HIV/AIDS prevalence by year from 2011-2015

HIV-prevalence

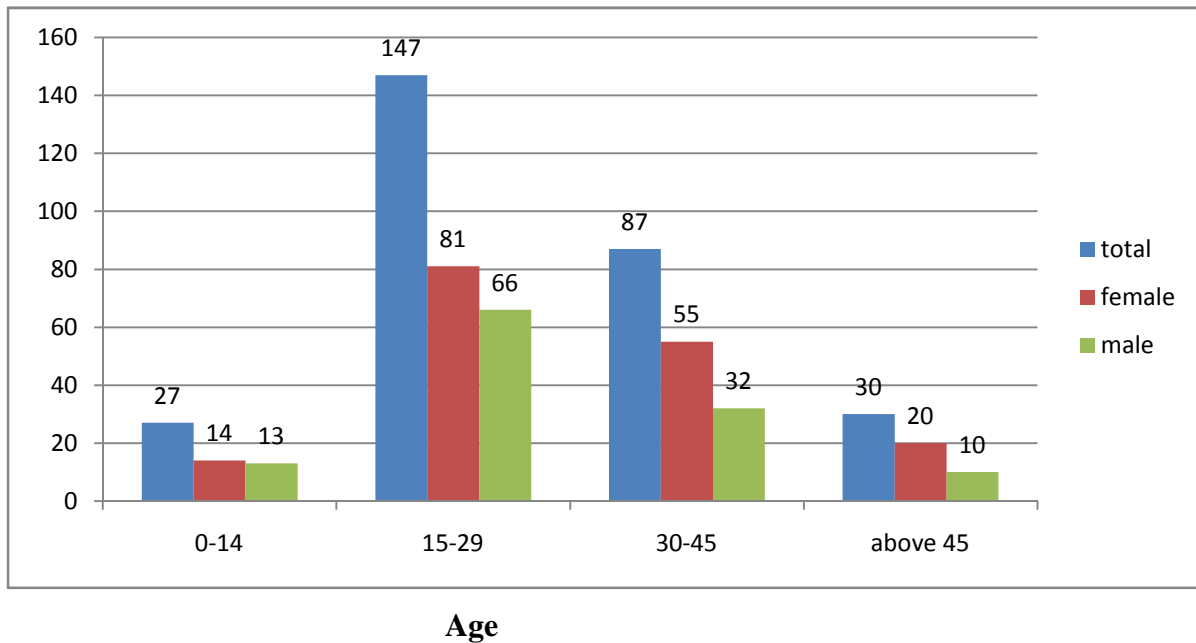


Figure 4: Graphical representation of HIV/AIDS prevalence by age from 2011-2015

4.3. Socio-Demographic Characteristics of Blood Tested Participant

The total of participant selected for HIV- blood test were 403 (203 male and 200 female). Those participants were registered based up on their interest from seven kebeles of Wonchi Woreda. Mean age of participants was 30.1 years in women ($SD = 7.6$) and 34.7 years in men ($SD = 8.6$), ranging from 15 to 61 years. Of these, 137(34%) participant were between the age group of 15-29, 133(33%) participant were between the age group of 30-45 and 133(33%) participant were more than 45 years old.

The participation of study subject in this study was not limited by any of the socio-demographic characteristics to test their blood. The participant were awarded about VCT service and equally participated in the study since the aim of the study was declared to the participant before the blood test was conducted. The age, sex, marital status and educational level were significant in blood test. CDC Guidance was followed to test blood and report the test results and its interpretation.

Table 6: Socio- demographic characteristics of the blood tested subject

Variable	Male N=203	Female N=200	Total N=403
Age			
15-29	86 (21.3%)	51 (12.7%)	137 (34%)*
30-45	78 (19.4%)	68 (16.9%)	136 (33%)
>45	39 (9.7%)	91 (22.6%)	130 (33%)
Religious			
Protestant	97 (24.1%)	86 (21.3%)	183 (45.4%) **
Orthodox	88 (21.8%)	108 (26.8%)	196 (48.6%)
Catholic	14 (3.5%)	2 (0.49%)	16 (3.9%)
Muslim	4 (99%)	4 (0.99%)	8(1.7%)
Ethnicity			
Oromo	203 (50.4%)	198 (49.1%)	398 (98.8%) **
Amhara	-	2 (0.49%)	2 (0.49%)
Educational status			
Illiterate	109 (27%)	146 (36.2%)	255 (63.3%)*
Read and write	85 (21.1%)	27 (6.7%)	112 (27.8%)
Above grade nine	9 (2.2%)	27 (6.7%)	36 (8.9%)
Marital status			
Single	43 (10.7%)	8 (1.9%)	51 (12.7%)*
Married	158 (39.2%)	187 (46.4%)	345 (85.6%)
Divorced	2 (0.5%)	5 (1.2%)	7 (1.7%)
Income			
Low	153 (39.2%)	134 (33.2%)	287 (71.3%) **
Medium	47 (11.7%)	66 (16.4%)	113 (28%)
High	3 (0.7%)	-	3 (0.7%)

*= significant ($p < 0.05$), ** non significant ($p > 0.05$)

4.4. Blood Test Result of participant

Of 403 participant, 385(95.5%) were HIV-negative while the remaining 18(4.5%) HIV-positive. About 11 (2.8%) were female and 7(1.7%) were male. There was a gender variation in prevalence between males and females. The transmission of HIV/AIDS was more prevalent in female than in male among the blood tested participant with a difference of 1.1% this result was supported by a study conducted in Dilla town by Alemu in 2015. HIV/AIDS transmission was more prevalent in the age group of 15-40 than the rest age groups. Majority of HIV-positives were economically in the productive age (15 to 49) among both genders. HIV testing has always been seen as a major tool in the fight against HIV/AIDS. HIV coun-

selling and testing (HCT) was a corner stone for early access to prevention as well as to care and support services. Despite the personal implications of knowing one's HIV status might be expected that everyone would want to get tested particularly in areas of high HIV prevalence like urban Africa. But the vast majority of HIV infected people don't know their HIV status. Although HIV testing capacity has increased over time, enabling more people to learn their HIV status, nearly half of all people with HIV are still unaware they are infected. HIV has led to a resurgence of tuberculosis (TB), particularly in Africa, and TB is a leading cause of death for people with HIV worldwide (Ferguson, 2013).

Table 6: Blood test result of the study participant

Blood test result	Male (N= 203)	Female (N=200)	Total (N=403)
HIV-Positive	7 (1.7%)	11 (2.8%)	18 (4.5%)*
15-29	5 (1.2%)	8 (1.9%)	13 (4.5%)*
30-45	1 (0.2%)	3 (0.7%)	4 (0.9%)*
Above 45	1 (0.2%)	-	1 (0.2%)*
HIV-Negative	189 (46.9%)	178 (44.2%)	385 (95.5%)
15-29	81 (20.1%)	43 (10.7%)	124 (30.8%)
30-45	77 (19.1%)	65 (16.1%)	142 (35.2%)
Above 45	38 (9.4%)	91 (22.6%)	129 (32%)

*= significant ($p < 0.05$), ** = non significant ($p > 0.05$)

4.5. Distribution of HIV/ AIDS in Each Seven Kebeles in the Study Area

-
- [Support Us](#)
- [For the Press](#)
- [Corporate Support](#)

DONATE NOW

amfAR, The Foundation for AIDS Research



- [Research](#)
- [Overview](#)
- [Research Grants](#)
- [Research Accomplishments](#)
- [Scientific Advisory Committee](#)
- [Research Staff](#)
- [Research Archive](#)
- [amfAR Research Consortium on HIV Eradication: \(ARCHE\)](#)
- [Policy and Advocacy](#)
- [Policy Priorities](#)
- [Issue Briefs](#)
- [Awards](#)
- [Rosenfield Fellowships](#)
- [Take Action](#)
- [Events](#)
- [Archive](#)
- [Staff](#)
- [GMT Initiative](#)
- [About GMT Initiative](#)
- [The GMT Initiative Blog](#)
- [Implementation Science Grants](#)
- [Community Awards Program](#)
- [GMT Initiative Publications](#)
- [amfAR HIV Scholars Program](#)
- [GMT Initiative Archive](#)
- [TREAT Asia](#)
- [TREAT Asia](#)
- [About TREAT Asia](#)
- [AIDS in Asia](#)
- [Research and Treatment](#)
- [Education and AIDS Training](#)

- [Community Advocacy and Policy](#)
- [Pediatric HIV Program](#)
- [TREAT Asia Publications](#)
- [TREAT Asia Awards](#)
- [TREAT Asia Archive](#)
- [Internal Webpage Resources](#)
- [Get Involved](#)
- [Countdown To A Cure](#)
- [Donate](#)
- [Corporate Sponsors](#)
- [Events](#)
- [About HIV/AIDS](#)
- [A Practical Guide to Getting Tested for HIV](#)
- [AIDS at 30](#)
- [Statistics: United States](#)
- [Statistics: Women and HIV AIDS](#)
- [Statistics: Worldwide](#)
- [Young People and HIV AIDS](#)
- [Links to Other HIV Resources](#)
- [Basic Facts About HIV/AIDS](#)
- [About amfAR](#)
- [Leadership](#)
- [Key Accomplishments](#)
- [Publications](#)
- [In The Community](#)
- [amfAR Video Gallery](#)
- [Public Service Ad Campaigns](#)
- [Shop](#)

- [print](#) |
- [email](#) |
- [share](#)
- [A Practical Guide to Getting Tested for HIV](#)

- [AIDS at 30](#)
- [Statistics: United States](#)
- [Statistics: Women and HIV AIDS](#)
- [Statistics: Worldwide](#)
- [Young People and HIV AIDS](#)
- [Links to Other HIV Resources](#)
- [Basic Facts About HIV/AIDS](#)

Young People and HIV/AIDS

Approximately 1.1 million Americans are living with HIV/AIDS, and more than 50,000 become infected with HIV every year. Twenty-five percent of them are between the ages of 13 and 24. That means at least one teenager or young adult in this country is infected with HIV every hour of every day. But many young people still do not think they are personally at risk for HIV.



- [How is HIV Spread?](#)
- [Are You Afraid You May Already Have HIV?](#)
- [What Happens When You Get Tested?](#)
- [Where Can You Go to Get Tested?](#)
- [Why Is It Important to Know if You've Got HIV?](#)
- [How Can You Tell if Someone Has HIV/AIDS?](#)
- [When Is Safer Sex Important?](#)

- [Is Protection Necessary During Oral Sex?](#)
- [Aren't HIV and AIDS the Same Thing?](#)
- [Is There a Cure for HIV/AIDS?](#)
- [Do STIs Make It Easier to Get HIV?](#)
- [Can You Get HIV Through Casual Contact?](#)

How is HIV Spread?

People infected with HIV carry the virus in their body fluids, including blood, semen, vaginal secretions, and breast milk. The virus can spread only if these HIV-infected fluids enter the bloodstream of another person. This can take place (1) through the linings of the vagina, rectum, mouth, or the opening at the tip of the penis; (2) through injection with a syringe; or (3) through a break in the skin, such as a cut or sore. The most common ways that people become infected with HIV are:

Unprotected sexual intercourse (either vaginal or anal) with someone who has HIV. The majority of HIV-positive young adults in the U.S. become infected this way.

Sharing needles or syringes (including those used for steroids) with someone who has HIV.

Mother-to-child transmission during pregnancy, childbirth, or breast-feeding. This has declined steeply in the U.S. since the 1990s due to medications that protect infants from infection.

[BACK TO TOP](#)

Are You Afraid You May Already Have HIV?

Some people develop mild, temporary flu-like symptoms or persistent swollen glands immediately after becoming infected with HIV. But symptoms are not a good indicator of HIV infection, because many people don't experience any symptoms for many years. Even if you look and feel healthy, you could still be infected.

You may be at risk if you have had unprotected sex or if the condom broke during sex, if you have multiple partners or have discovered your partner was not monogamous, if you have shared needles, if you recently tested positive for another sexually transmitted infection, or if you were sexually assaulted. And it is important to know that HIV is more easily passed from men to women or from the insertive partner to the receptive partner among men who have sex with men.

If you think there's a chance you may have been exposed to HIV, you should get tested as soon as possible.

[BACK TO TOP](#)

What Happens When You Get Tested?

There are several types of HIV test. The most common are the antibody test and the antigen-antibody test. Both of these take up to one week to generate results and should be followed up with additional testing. Antibody tests can generate false positives and should always be followed by an antigen test to confirm a positive result. If doubts persist, doctors usually recommend a third very sensitive and expensive test that can detect the presence of the virus itself.

In addition to the blood tests described above, another option is the OraSure rapid test, which uses a swab of oral mucus or fluid from the inside of your cheek. Rapid tests can detect HIV antibodies in about 20 minutes, eliminating the waiting period between taking an HIV test and learning your status.

Bear in mind—newer antigen-antibody lab tests cannot detect HIV until two to three weeks after exposure to the virus, and it can take three months after the last possible exposure to HIV before a person will test positive with a blood or oral antibody test. Because of this window period, a negative test result does not necessarily rule out HIV infection. Since the virus is most infectious in the earliest weeks after HIV infection, you should take great care to avoid unprotected sex if you think you may have been exposed to HIV. If you have engaged in high-risk sexual activity, it is important to be re-tested every three months.

A positive HIV test result indicates that antibodies to HIV or HIV antigens were detected. It does not mean that you have AIDS or that you will get sick right away. And although there is no cure for HIV/AIDS, currently available drugs are highly effective at keeping the virus in check.

[BACK TO TOP](#)

Where Can You Go to Get Tested?

Many young people who are HIV positive don't know it, which means they can't take important steps to protect themselves or other people, or to get the medical care they need. In 2013, only 13% of all high school students—and 22% of those who had ever had sexual intercourse—had been tested for HIV. And in 2010, only 35% of adults aged 18–24 had ever received a test. As a result, approximately 60% of those under 25 living with HIV are unaware of their infection.

It's ideal to get tested at a place that provides counseling because counselors can help you understand what your test results mean, answer questions about how to protect yourself and others, and refer you to local HIV-related resources.

You can get tested for HIV by your doctor, at local health department clinics, or at hospitals. In addition, many states offer anonymous HIV testing.

It is also possible buy an OraSure rapid oral HIV test over the counter at most pharmacies and test yourself. If you do test positive, you should see your doctor and get a blood test to ensure the result is accurate. To find an HIV testing site near you, visit www.hivtest.org, or call the Centers for Disease Control and Prevention's 24-hour toll-free hotline at 800-CDC-INFO (800-232-4636).

[BACK TO TOP](#)

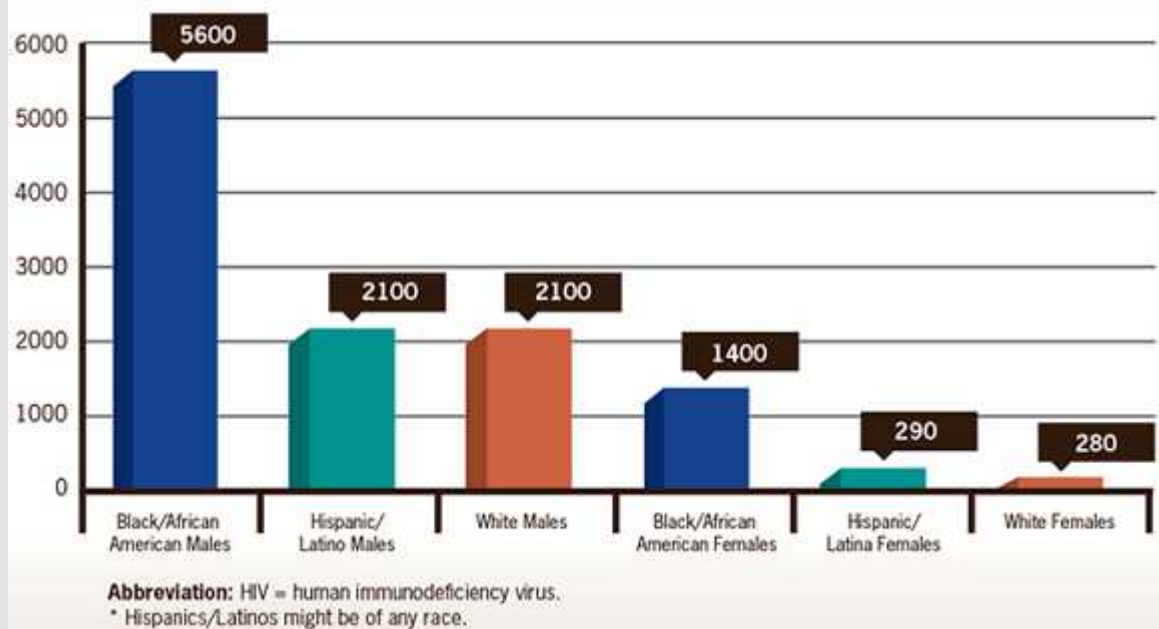
Why Is It Important to Know if You've Got HIV?

If you think you may have HIV, it is important to find out as soon as possible. HIV is most easily transmitted when the level of virus in the body is at its highest—shortly after HIV infection and at the late stages of the disease. Even in the early stages of HIV infection, you can take concrete steps to protect your long-term health. Beginning medical care before you begin to get sick may give you many more years of healthy life. And knowing you're HIV positive allows you to take the necessary precautions to prevent others from becoming infected.

If you are HIV positive, it is important to see your doctor regularly. Get tested for tuberculosis and other opportunistic infections. Keep your immune system strong through good nutrition, adequate sleep, and not smoking or drinking alcohol. And find a support system—it is important to remember that you are not alone.

[BACK TO TOP](#)

**Number of New HIV Infections Among Youth
by Sex and Race/Ethnicity – United States, 2010**



CDC. *Vital Signs: HIV Infection, Testing, and Risk Behaviors Among Youths - United States. MMWR 2012:61*

How Can You Tell if Someone Has HIV/AIDS?

You *can't* tell if someone has HIV or AIDS simply by looking. An infected person can appear completely healthy. But anyone infected with HIV can infect other people, even if no symptoms are present *and even if they believe they are negative*. If you are sexually active, the only way to be sure you don't have HIV is to get tested.

If you're not sexually active, you've already eliminated the most common cause of HIV infection among teens. But if you have made the decision to have sexual intercourse, you need to protect yourself.

HIV/AIDS doesn't discriminate. That means that anyone who engages in risky behavior can become infected with HIV. But the epidemic has taken an especially heavy toll on some groups of young people, especially African-American and Latino youth, young women, and young men who have sex with men (whether or not they think of themselves as gay).

In 2010, African Americans represented 17% of teenagers and 16% of people aged 20–24 in the overall population, but accounted for 57% of new HIV infections among those aged 13–24. Young men who have sex with men (MSM), especially those of color, have the highest risk of HIV infection among young people. In 2010, young MSM represented 72% of new infections among those aged 13–24—and new infections increased by 22% among this group from 2008 to 2010. Adolescent females are also at risk. In 2010, females accounted for 17% of new HIV infections among young people aged 13–24.

Remember, it's not who you are but what you do that determines whether you can become infected with HIV.

[BACK TO TOP](#)

When Is Safer Sex Important?

The rules are simple. Whenever you have sexual intercourse (or oral sex), practice safer sex by using a condom or dental dam (a square of latex recommended for use during oral sex). When used properly and consistently, condoms are close to 99% effective in preventing transmission of HIV. But remember:

Use only latex condoms (or dental dams);

Use only water-based lubricants;

Use protection each and every time you have sex.

Other methods of birth control (such as the diaphragm and birth control pills) do not protect against HIV and other sexually transmitted infections (STIs). Practicing safer sex will help you avoid other STIs, many of which can increase your risk of contracting HIV or giving it to someone else. You should also limit the number of sexual partners you have, and limit the use of alcohol or recreational drugs, which can impair judgment during sex.

[BACK TO TOP](#)

Is Protection Necessary During Oral Sex?

While it's much easier to contract HIV through unprotected vaginal or anal sex, unprotected oral sex is not a completely safe substitute. If you choose to perform or receive oral sex—whether your partner is male or female—it's wise to guard against the transmission of HIV. Here's how:

Use a latex condom each and every time you perform oral-penile sex (fellatio); or

Use plastic food wrap, a latex condom cut open, or a dental dam during oral-vaginal sex (cunnilingus) or oral-anal sex (analingus).

These methods provide a physical barrier to HIV transmission and help keep you safe from other sexually transmitted infections, many of which can increase your risk of contracting HIV or giving it to someone else.

[BACK TO TOP](#)

Aren't HIV and AIDS the Same Thing?

HIV (human immunodeficiency virus) causes AIDS (acquired immunodeficiency syndrome). When HIV infects someone, the virus enters the body and begins to multiply and attack immune cells that normally protect us from disease. Eventually the body's immune system breaks down and is unable to fight off opportunistic infections and other illnesses ranging from pneumonia and cancer to blindness and dementia. Only when someone with HIV begins to experience these specific infections and illnesses are they diagnosed with AIDS.

[BACK TO TOP](#)

Is There a Cure for HIV/AIDS?

AIDS is still a life-threatening disease for which there is no cure and no vaccine. New medications are helping many people with HIV/AIDS live longer, healthier lives, but the combination or "cocktail" treatments don't work for everyone. They're very expensive and often cause serious side effects, including liver damage, increased risk of heart attack, a form of osteoporosis, chronic diarrhea, rashes, fat redistribution, and high cholesterol. And because HIV mutates constantly, the virus often develops resistance and the medications become ineffective. The best defense is to use a condom.

[BACK TO TOP](#)

Do STIs Make It Easier to Get HIV?

HIV/AIDS isn't the only sexually transmitted infection young people have to worry about. There's a virtual alphabet soup of STIs floating around out there, including chlamydia, genital warts, gonorrhea, herpes, and syphilis. A 2009 study showed that approximately one in four girls aged 14–19 in the U.S. have had at least one STI.

Having a sexually transmitted infection can increase your risk of acquiring or transmitting HIV and developing AIDS. This is true whether you have open sores or breaks in the skin (as with syphilis, herpes, and chancroid) or not (as with chlamydia and gonorrhea). Where there are breaks in the skin, HIV can enter and exit the body more easily. But even when you have undamaged skin, STIs can cause biological changes that may make HIV trans-

mission more likely. Studies show that people with HIV who are infected with another STI are two to five times more likely to contract or transmit the virus through sex. What to do? Practice safer sex.

[BACK TO TOP](#)

Can You Get HIV Through Casual Contact?

HIV is not an easy virus to pass from one person to another, like the flu. It is not transmitted through food or air (for instance, by coughing or sneezing). There has never been a case where a person was infected by a household member, relative, co-worker, or friend through casual or everyday contact such as sharing eating utensils and bathroom facilities or hugging and kissing. (Most scientists agree that while HIV transmission through deep or prolonged “French” kissing might be possible, it’s extremely unlikely.) There have been no recorded cases of transmission through contact with saliva, tears, or sweat.

Mosquitoes, fleas, and other insects do not transmit HIV; when they bite a person, they inject their own saliva, not their blood or the blood of the last person they bit. In the U.S., thorough screening of the blood supply for HIV since 1985 has virtually eliminated the risk of infection through blood transfusions. And you can’t get HIV from giving blood at a blood bank or other established blood collection center; they use sterile-packed needles every time they draw blood.





Source: The U.S. Centers for Disease Control and Prevention

Last updated July 2015



[Donate Now](#)

[Participate](#)

-  [Follow Us on Facebook](#)
-  [Follow Us on Twitter](#)
-  [Follow Us on Instagram](#)
-  [Follow Us on YouTube](#)

-  [Donate via AmazonSmile](#)
-  [Sign Up for Our Newsletter](#)

- [About amfAR](#)
- [About HIV/AIDS](#)
- [Financial Information](#)
 - [Privacy Policy](#)
 - [Terms of Use](#)
 - [Sitemap](#)
 - [For the Press](#)
 - [Contact Us](#)
 - [Jobs at amfAR](#)

© 2016 amfAR All Rights Reserved

In many cities in sub-Saharan African countries more than a quarter of young and middle-aged adults are infected with HIV, whereas in most developed countries, the number of annual AIDS cases continues to decrease. The distribution of HIV/AIDS was higher in cities and town than village and higher in developing countries than developed world. The status of HIV epidemics in most other areas of the world remains uncertain because of inadequate data on the prevalence of HIV-risk behaviors (WHO, 2012).

Table 8: Distribution of HIV/AIDS in each sample kebles

Test result	Kebeles							Total
	K1	K2	K3	K4	K5	K6	K7	
HIV- positive								
Male	2	1	-	2	-	2	-	7(3.4%)*
Female	3	2	2	-	1	2	1	11 (5.5%)*
HI- negative								
Male	33	25	24	34	24	31	25	296(96.6%)
Female	31	24	24	34	24	29	23	189(94.5%)

K= kebele, Number 1-7 (Darian 01, chitu 01, Sonkole Kake, Dulele Kori, Meti Wolga, Mera-ga Abayi and Dimtu Godeti)

4.6. Socio- Demographic Characteristics of Participant Youth

All the total of 403 youth was participated in the study with 100% response rate. Out of the total respondents 50.4 were male 45.9% were female. Mean age of youth was 19.1 years in women ($SD = 7.6$) and 20.7 years in men ($SD = 8.6$), ranging from 15 to 24 years. Two hundred sixty two (64.7%) of the participants were between the age of 15-18 and the remaining participants one hundred forty one (34.8%) were between the age of 19-24. The majority of respondents 383 (95%) were Oromo followed by Amhara 20(5%) by ethnicity and 182 (45.2%) were protestant Christian, 140(34.7%) were Orthodox, 60(14.9%) were catholic and 21(5.2%) were Muslim by religious. The majority of respondents 264 (62.7 %) were more than grade nine in their education level while 40(9.9%) were illiterate and 101(24.9%) youth were read and write. In economic status, 61(15.1) youth had high income, 161(39.8%) youth had medium income and 181(44.7%) had low income. The study has shown all youths those included in the sample size were participated with a rate of 100%. In both sex, the participants were completed the administered question with the idea given as an option. Youths from higher education were more knowledgeable towards HIV/AIDS transmission and prevention than the youth from illiterate and lower educational level in both sex. In terms of KAP, male youths were more performed than the female.

Variables	Male	Female	Total
Age (15-24)	203 (50.4%)	200 (49.6%)	403 (100%)*
Religious			
Protestant	92 (22.8%)	90 (22.3%)	182 (45.2%) **
Orthodox	78 (19.4%)	62 (15.4%)	140 (34.7%)
catholic	26 (6.4%)	34 (8.4%)	60 (14.9%)
Muslim	7 (1.7%)	14 (3.5%)	21 (5.2%)
Ethnic group			
Oromo	195 (48.4%)	188 (46.7%)	383 (95%) **
Amharic	8 (1.9%)	12 (2.9%)	20 (4.9%)

Education			
illiterate	22(5.5%)	18(4.5%)	40(9.9%)*
read and write	52(12.9%)	49(12.2%)	101(25.1%)
above grade 9	126(31.3%)	100(24.8%)	226(56.1%)
Marital status			
Married	48 (11.9%)	53 (13.2%)	101 (24.9%)*
Living together	16 (3.9%)	4 (0.9%)	20 (4.9%)
Single	124 (30.8%)	117 (29%)	241 (59.5%)
Divorce	15 (3.7%)	26 (6.5%)	41 (10.1%)
Income			
High	42 (10.4%)	19 (4.7%)	61 (15.1%) *
Medium	78 (19.4%)	83 (20.6%)	161 (39.8%)
Low	83 (20.6%)	98 (24.3%)	181(4.7%)

Table 9: Socio- demographic characteristics of youth

*= significant ($p < 0.05$), ** = non significant ($p > 0.05$)

4.7. Knowledge, Attitude and Practice of Youth in the Study Area

From all participants who had at least one incorrect response were considered as not having comprehensive knowledge attitude and practice. All participants 403(100%) had heard of HIV/AIDS. The common source of information for HIV/AIDS transmission and prevention methods mentioned by participants were schools (64.9%), health extension 80(19.9%), hospital 40(9.9%), and mass media 20(4.9%). 382(94.8%) participants knew that HIV is transmitted from infected person to HIV-free person through unprotected sexual intercourse, using unsterilized equipments, multiple sexual partners, mothers who have HIV in their blood to their child and blood contact with person who live with the virus while 22(5.4%) participant were not knew as HIV transmitted from one person to another one. According to the participant idea the virus was frequently seen in youth 362(89.8%), male 20(5%) and female 21(5.2%).

Knowledge of the three major ways of preventing sexual transmission of HIV (protect from unprotected sexual intercourse, having one uninfected faithful sexual partner, and consistent and correct condom use) were used to identify the knowledge of participant youth. The three common misconceptions about HIV transmission (can a healthy-looking person have HIV?, can a person get HIV from mosquito bites, can a person get HIV by sharing a meal with

someone who was infected, and can HIV free person buy commodity from HIV positive person) were also used to assess knowledge about participants.

Table 10: Knowledge, attitude and practice of youth

Variables	Male (N=203)	Female (N=200)	Total (N=403)
Have you heard a disease called /HIVAIDA?			
Yes	203(50.4%)	200(49.6%)	403(100%)*
What were your sources of information?			
Health extension	45(11.2%)	35(8.7%)	80(19.8%)
Hospital	22(5.5%)	18(4.5%)	40(9.9%)
School	132(32.8%)	131(32.5%)	263(64.9%)*
Media	4(0.9%)	16(3.9%)	20(4.9%)
Does HIV/AIDS transmittable?			
Yes	197(48.9%)	195(48.4%)	382(94.8%)
No	6(1.5%)	16(3.9%)	22(5.5%)
Where do think HIV/AIDS frequently seen in the community you belong?			
Male and Female	183(45.4%)	179(44.4%)	362(89.8%)
Youth			
How can one protect him/her self?			
Protect unprotected sexual intercourse	143(35.5%)	138(34.2%)	281(67.7%)
Protect sexual intercourse	28(6.9%)	33(8.2%)	61(15.1%)
Sexual intercourse without condom	26(6.5%)	15(3.7%)	41(10.2%)*
Protect mosquito bite	6(1.5%)	14(3.5%)	20(4.9%)
What is possible ways a mother can reduce a risk of HIV transmission to her baby?			
Taking ART	203(50.4%)	200(49.6%)	403(100%)

Table 10: (Continuous)

How can a person know

his/her HIV/AIDS status?			
Blood test	176(43.7%)	166(41.2%)	342(84.9%)*
By looking	16(3.9%)	25(6.2%)	41(10.2%)
Physical examination	11(2.7%)	9(2.2%)	20(4.9%)
Can HIV/AIDS be cured?			
Yes	67(16.6%)	55(13.6%)	122(30.3%)
No	136(33.7%)	145(35.9%)	281(69.7%)
Are you voluntary to share cloths with PLWHA?			
Yes	28(6.9%)	33(8.2%)	61(15.1%)
No	175(43.4%)	167(41.4%)	342 ((84.9%)
Would you eat meal with PLWHA?			
Yes	172(42.7%)	149(36.9%)	321(79.7%)*
No	31(7.7%)	(20.3%)	82(20.3%)
If you knew food sellers had HIV/AIDS, would you buy food from them?			
Yes	134(33.3%)	127(31.5%)	261(64.8%)*
No	69(17.1%)	73(18.1%)	142(35.2%)
If a teacher is HIV positive but is not sick should he/she be involved to continue teaching?			
Yes	174(43.2%)	128(31.8%)	302(74.9%)*
No	19(4.7%)	82(20.3%)	101(25.1%)
Did you perform sex by using condom during sexual intercourse?			
Yes	162(40.2%)	160(39.7%)	322(79.9%)*
No	41(10.2%)	40(9.9%)	81(20.1%)
Have you ever tested for HIV/AIDS and told your result to your friend?			
Yes	178(44.2%)	164(40.7%)	342(84.9%)*
No	25(6.2%)	37(9.2%)	62(15.4%)
Would you care for and support victims?			
Yes	173(42.9%)	190(47.1%)	363(90.1%)*
No	30(7.4%)	10(2.5%)	40(9.9%)

PLWHA: people living with HIV/AIDS, * = significant ($p < 0.05$) **= non significant ($p > 0.05$)

Accordingly, about 281(67.7%) participants correctly identified all the major prevention methods, and 122(30.3 %) rejected the major misconceptions about mode of HIV transmission.

The entire respondent responds that the status of HIV/AIDS was known by HIV-blood test. All 403(100%) respondents were accepting that HIV-positive mother must take ART in order to prevent HIV transmission to her baby during pregnancy, delivery or birth and during breast feeding. About 302(74.9%) of the respondent accepted that HIV-positive individual can give any service in private and governmental sectors without any kind of discrimination while the remaining 101(25.1%) respond that HIV positive individual did not involved in any service

Of all respondents, 84% with 95%CI (79%, 84%) had comprehensive knowledge about the name HIV/AIDS (Table-5). Knowledge on HIV transmission was significantly better among men than women ($p = .001$), among older respondents than younger as significant difference was also found with regard to age ($p = .002$), and among those with secondary school education versus those with less ($p = .0002$). The overall knowledge mean score for all participants was 18.7 correct answers out of a possible 25 question, ranging from a low of 8 to a high of 21. On average, men achieved a significant higher mean score (18.9; $SD = 4.9$) than women did ($p = .0140$).

Among the social groups youth represent an opportunity to end the AIDS epidemic through leadership and behavioral and social changes which would have an impact on new HIV infections, AIDS related deaths and the way the world responds to HIV and AIDS. Although the youth are among the most vulnerable groups to HIV infection, they are the most promising agents of behavior change. If behavior change is to be effective, it should involve the youth itself in the generation of appropriate messages and should also address socio-economic and cultural realities that influence sexual behavior. Those working to prevent the spread of HIV/AIDS and mitigate its impact increasingly recognize the links between HIV/AIDS, youth, and poverty. Developing institutions that bring together youth for economic advancement also helps prevention, care and support efforts.

4.8. Analysis of Socio Demographic Characteristics, KAP and Blood Test

In the variable logistic regression analysis, knowledge factors such as HIV is not curable disease was significantly associated with socio demographic characteristics ($p < 0.05$): sex ($p = 0.04$), marital status ($p = 0.04$), average income ($p = 0.01$), while religion ($p = 0.83$), ethnicity

($p=0.62$) were not significantly associated with KAP as $p > 0.05$. In attitude factors such as will you discuss your blood test result with your friend if a blood test result was HIV positive was significantly associated with sex ($p=0.003$). In practice factor condom utilization associated with income ($p=0.04$). Blood test result was associated with age ($p=0.03$), sex ($p=0.004$), educational level ($p=0.001$) and marital status ($p=0.005$) but not associated with religious and ethnicity ($p=0.18$) as the $p > 0.05$.

5. Summery and conclusion

This study was conducted on the trends in the prevalence of HIV/AIDS and the KAP of youth in Wonchi woreda South West Shoa zone. The prevalence of HIV/AIDS among blood tested participant was 4.5%. Relatively it was more prevalent in female than in male. The incidence of HIV/AIDS was decreasing from year to year since number of new HIV infection decrease and the awareness of the society increase. Trends in the prevalence of HIV/AIDS from 2011 to 2015 were 84(29.1%), 64(22.1%), 57(19.7%), 49(16.9%) and 35(12.1%) respectively. Although the number of new HIV infection decrease, the number of HIV-positive patient increase from year to year as the life span of patient increase or mortality rate decrease due to ART.

From the participant youth in the study, about 362 (89.8%) with 95%CI (84.8%, 89.8%) answered that youth were the most vulnerable group to HIV/AIDS infection as the result of biological and non biological factors. As the information obtained from participant youth during data collection knowledge based questions were correctly responded about 82.3% with 95%CI (77.3%, 82.3%). From this result it might be suggested that most youths were knowledgeable about HIV/AIDS prevention and transmission. Relatively male was more knowledgeable than female. In case of attitude about 84.9 % with 95CI (79.9%, 84.9%) were took VCT service and discussed their blood test result with their friends. This implies that youths were perceived positive attitude towards HIV/AIDS transmission and prevention. About 79.9% with 95%CI (74.9%, 79.9%) were used condom during the last sexual intercourse. Generally, the KAP of youth was on the progress and said to be good. In this study, Age, marital status, income and educational level had significantly association with the KAP and blood test result of the participant in the study area while ethnicity and religions had no association.

1.5 Concluding Remarks

Based on the data from the biennial surveillance surveys among ANC attendees, Swaziland is now considered among the countries worst affected by the AIDS epidemic. The overall level of infection is still increasing, albeit at slower rates than in the earlier stages of the epidemic. The increase in HIV infection is fairly consistent among the country's four administrative regions and across urban and rural areas. Women aged 20-29 continue to be the hardest hit. The most recent serosurveillance survey provides an indication that perhaps there is stabilization in the level of HIV infection among women 15 to 24 years, as a slight decline in HIV prevalence has been noted among teenage girls (15-19 years). This could indicate that the number of new infections has begun to decline. However, this would need to be confirmed in future serosurveillance surveys as this finding in 2004 may be an artefact of the dataset, as opposed to an indication of a declining trend in new infections. There are differences in HIV prevalence by education, with women with the lowest education level having the highest prevalence; however there are inconsistencies in the relationship between female education and prevalence that warrant further research. Women with STIs had higher HIV prevalence than those without. Marriage, however, is not an important factor in HIV infection, with married and non-married women having similar levels of HIV infection. Meanwhile, the demographic impact of HIV/AIDS is that mortality has risen sharply, increasing the dependency ratio. How these trends proceed in the future very much depends on uptake and provision of comprehensive ART, which includes ARVs, pre-ART services, and nutrition, among other interventions. With these basic facts in mind, the following chapters analyse the impact of the epidemic on socio-economic variables.

6. RECOMMENDATION

- ❖ Behavioral change is very important to stop the transmission of HIV/AIDS. The 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.
- ❖ In the study area the prevalence of HIV/AIDS was 4.5% among blood tested participant. The Woreda health office must be focus and work on misconception and knowledge gap of the community by establishing anti HIV/AIDS club and community conversation to bring HIV/AIDS transmission to 0 % prevalence.
- ❖ Before this study, no other study was conducted at kebele level in the study area to indentify the status of HIV prevalence and its trends in the community. Therefore Oromia health bureau and Wochi woreda health office must cooperate and conduct study to identify the micro-epidemics.
- ❖ Major source of information about HIV/AIDS transmission and prevention was at schools. Other sources of information in the hospital, clinics and health worker must increase their capacity to reach information to the society about HIV/AIDS.
- ❖ Youth were the most vulnerable group among the society. For this reason special focus should be given to youth groups, illiterate and low educational status of the community by the HIV/AIDS program implementers at woreda and kebele level.
- ❖ The study has shown that females were more affected than male by HIV/AIDS transmission. Gender inequalities, differential access to service, and sexual violence increase women's vulnerability to HIV. The Wonch woreda administration bureau and the women affairs office consciously work to stop inequality and sexual violence.

7. REFERENCE

- Busza, J., Douthwaite, M., and Bani, R. 2013, injecting behaviour and service use among young injectors in Albania, Moldova, Romania and Serbia. *Int J Drug Policy*. 24(4):423–431.

- Central Statistical Agency (CSA) and ICF International. 2012, Ethiopia Demographic and Health Survey. Central Statistical Agency and ICF International, Calverton, Maryland, USA: 55(7): 123-129.
- Department of Health and Ministry of Health (DHMH). 2013. HIV Sentinel Sero-surveillance Survey Report, Naypyidaw, Myanmar: National AIDS Programme 33(7): 76-83.
- DHS. 2011. Data analyzed and reported in: HIV/AIDS in Ethiopia. An epidemiological synthesis. Federal HIV/AIDS Prevention and Control Office 2014 (*in press*)
- Dillnessa E. 2011. Assessment of Couples Voluntary Counseling and Testing Service Utilization at Addis Ababa Government Hospital VCT site.
- Dowshen N. and Angelo L. 2011. Health care transition for youth living with HIV/AIDS. *Pediatrics*; 128(9):762–771.
- Emmanuel, F., Salim M. and Akhtar N. 2013. Second-generation surveillance for HIV/AIDS in Pakistan: results from the 4th round of integrated behavior and biological survey. *Sex Transmission Infect.* 89(3):23–28.
- Fenton, L. 2011. Preventing HIV/AIDS through poverty reduction: the only sustainable solution? *Lancet*.;364 (9440):1186–1187.
- Ferguson, J. 2013. WHO Guidelines on HIV Testing and Counselling for Adolescents and Care for Adolescents Living with HIV [Conference Poster]. Geneva, Switzerland: WHO 38(7) 432-446.
- HAPCO. 2012, Federal Democratic Republic of Ethiopia. Report on Progress towards Implementation of the Declaration of Commitment on HIV/AIDS, Addis Ababa Ethiopia 86(9): 204-234.
- Henry J. Kaiser Family Foundation. 2010, Financing the Response to AIDS in Low- and Middle- Income Countries: International Assistance from Donor Governments 69(7): 121-128.
- Hodgson I., Ross J. and Haamujompa C. 2012. living as an adolescent within HIV in Zambia-lived experiences, sexual health, and reproductive needs. *AIDS Care.* 24:94-102.
- Jaspan, H., O., Brien, V. 2010, Positive futures: a qualitative study on the needs of adolescents on antiretroviral therapy in South Africa. *AIDS Care.* 22:751–758.

- Joint United Nations Programme on HIV/AIDS. 2012, UNAIDS Report on the Global AIDS Epidemic: Annexes. Geneva, Switzerland: UNAIDS; 49-89.
- Joint United Nations Programmed on HIV/AIDS (UNAIDS). 2015, Countdown to Zero: Global Plan towards the Elimination of New HIV Infections among Children by and Keep Their Mothers Alive. Geneva, Switzerland: UNAIDS; 77(9) 121-128.
- KFF.2015, Financing the Response to HIV in Low- and Middle-Income Countries: *International Assistance from Donor Governments in 39(7)* 68-69.
- Koenig LJ, Nesheim S, and Abramowitz S. 2011, Adolescents with perinatally acquired HIV: emerging behavioral and health needs for longterm survivors. *Curr Opin Obstet Gynecol.*; 23:321-327.
- Lamb MR, Fayorsey R, and Nuwagaba-Biribonwoha H, 2014, High attrition before and after ART initiation among youth (15-24 years of age) enrolled in HIV care. *AIDS.* 28:559–568.
- Lemessa Olkeba., 2005. Utilization of VCT, Perceived Barriers and Preferences of Adolescents of 15 To 24 Years of Age in Harar Town, Eastern Ethiopia. The Proceeding Annual EPHA scientific conference, 32-47.
- Mavedzenge SN., Luecke, E., Ross, DA. 2013. Effectiveness of HIV prevention, treatment and care interventions among adolescents: a systematic review of systematic reviews. National AIDS Control Organisation (NACO). 2012, India's Ministry of health and Family Welfare, Government of India. HIV Sentinel Surveillance: A Technical Brief. New Delhi, India: Government of India; 22(4): 42-58.
- Painter, TM. 2010. Voluntary counseling and testing for couples; a high-leverage intervention for HIV/AIDS prevention in SSA, *Soc. Science Medicine*, Dec., Atlanta; 53(11):1397-411.
- Rosenberg NE., Westreich, D., Barnighausen, T. 2013. Assessing the effect of HIV counseling and testing on HIV acquisition among South African youth. *AIDS.* 27(8):2765–2773.
- Schwartländer, B., Stover, J., Hallett T., 2011, towards an improved investment approach for an effective response to HIV/AIDS. *Lancet.* 37(7):2031–2041.
- Shisana, O., Rehle and Simbayi L.,C. 2013. South African National HIV Prevalence, Incidence, Behaviour and Communication Survey 2, Preliminary Results. Cape Town, South Africa : 33-35.

- Stover J, 2013. How can we get to zero? The role of new technologies and strategic investment approaches for an effective response to AIDS,. (Unpublished working paper).
- Stover J, Brown T, and Marston M.2012, Updates to the spectrum/estimation and projection package (EPP) model to estimate HIV trends for adults and children. *Sex Transmit Infect*; 88(2):11–16.
- Stover J, Rosen J, Kasedde S, Idele P, McClure C. The impact and cost of the HIV/AIDS investment framework for adolescents. *J Acquir Immune Defic Syndr.*; 66(2):170–175.
- Stover J., 2013. How can we get to zero? The role of new technologies and strategic investment approaches for an effective response to AIDS.22 (8) 132-135.
- Stover J., Rosen J., Kasedde S., Idele P., 2014. The impact and cost of the HIV/AIDS investment framework for adolescents. *J Acquir Immune Defic Syndr.*66 (2):170–175.
- Uganda Bureau of Statistics (UBOS). 2011, Macro International Inc. AIDS Indicator Survey,. Calverton, MD: UBOS and Macro international Inc; 12(5):67-72.
- UNAID. 2015, Starting Antiretroviral Treatment Early Improves Outcomes for HIV-Infected Individuals; UNAIDS, Geneva, Switzerland 27(4) 55-67. UNAIDS, Geneva, Switzerland
- UNAIDS. 2011, Community Innovation: Achieving sexual and reproductive health and rights for women and girls through the HIV response: UNAIDS, Geneva, Switzerland 42(4) 87-98.
- UNAIDS. 2011, Technical Guidance Note for Global Fund HIV Proposals - Harm reduction for people who inject drugs: UNAIDS, Geneva, Switzerland 65(9)32-39.
- UNAIDS. 2013, Global Report: UNAIDS Report on the Global AIDS Epidemic UNAIDS Geneva, Switzerland 63(7):41-62.
- UNAIDS. 2014, Global AIDS Response Progress Reporting: Construction of Core Indicators for Monitoring the UN Political Declaration on HIV and AIDS. Geneva, Switzerland: UNAIDS; 56-65.
- UNICEF Regional Office for CEE/CIS. 2014. Acquired Immune Deficiency Syndrome, Supplement, *Epidemiology of HIV and AIDS among Adolescents*: 43(7) 45-49.
- UNICEF. 2013. UNICEF Analysis of UNAIDS HIV and AIDS Estimates. New York, NY: UNICEF; 33 (8):55-77.

- UNICEF.2011: Global HIV/AIDS Response - Epidemic update and health sector progress towards Universal Access – Progress Report: 54-61.
- United Nations (UN). 2013, A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development. The Report of the High-Level Panel of Eminent Persons on the Development Agenda. New York, NY: UN; 45-67.
- WHO (World Health Organization). 2012. “Blood Safety: Aide-Memoire for National Blood Programmers’.”WHO, UNAIDS Geneva, Switzerland:79(6) 421-457.
- WHO. 2013. Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach. UNAIDS, Geneva, Switzerland: WHO; 23(6) 83-89.
- WHO.2013. NIAID START Trial confirms that immediate treatment of HIV with antiretroviral drugs (ARVs) protects the health of people living with HIV Press Release UNAIDS Geneva, Switzerland 69(8): 506-562.
- Zenebu Yadasa., 2005. Determinant of VCT Utilization among Youth in Jijiga Town, Ethiopia The Proceeding of the Annual EPHA scientific conference, 59-64.

8. APPENDIX

SCHOOL OF GRADUATE STUDIES

HARAMAYA UNIVERSITY

Self administered questionnaire on the Trends in the prevalence of HIV/AIDS and the KAP of Youth in Wonchi Woreda.

Woreda _____ kebele _____

Questionnaire identification number _____

Consent form that certify the respondents agreement before the distribution of questionnaire

Dear youth,

My name is _____. I came from Haramaya University Faculty of Natural and Computational Sciences and Department of Biology. I would like to inform you that we are going to have a questionnaire concerning this study. Before we go to our questionnaire, I will ask you to listen carefully to what I am going to tell you about the purpose and general condition of the study and tell me whether you agree or disagree to participate in this study. The purpose of this study is to generate information on the KAP of youth age 15-24 in the HIV/AIDS transmission and prevention that can be used to design an appropriate knowledge, attitude and practice gap filling program. In order to effectively attain the goal of the study I ask you for your help. Here a questionnaire contains 5 pages with 29 questions that divided in to 4 parts for you to complete. Check as all questions and all pages are present. There is no need to write your name on the questionnaire and no individual responses will be reported. Therefore the information you give me should be kept confidential and will be used only for study purpose. Circle your answer separately against the code.

Name of investigator _____ sign _____ date _____

Structured English and Afan Oromo Version Questionnaire

PART-1 Socio-demographic characteristics

No	Question	Coding classification	#
111	Sex of respondent	1. male 2. female	
112	Age of respondents	1.12-18 2. 18-24	
113	What is your religion?	1. protestant 2. orthodox 3. catholic 4. Muslim 5. tradition 6. others	
114	What is your ethnic group?	1. Oromo 2. Amhara 3. Tigre 4. Gurage 5. Others	
115	What is the highest education level that you attain?	1. illiterate 2. able to read and wr 3. technical and vocational 4. university/ college diploma 5. university/ college degree 6. others	

116	What is your current marital status?	1. married 2. living together as if married 3. single 4. widowed 5. separated 6. divorce	#
117	What is your current occupation?	1. house wife 2. government employee 3. private employee 4. private business 5. job less	
118	What is your monthly income?	1. high 2. moderate 3. low	

PART-2 Knowledge towards HIV/AIDS Transmission and prevention

No	Question	Coding classification	#
211	Have you ever heard of HIV or a disease called AIDS?	1. yes 2. no 77. no response	
212	If you heard of HIV or a disease called AIDS what were your sources of information?	1. health extension 2. clinics 3. hospital 4. school 5. radio 6. television 7. friends 8. others	
213	Does HIV/AIDS transmit from one person to another?	1. yes 2. no	

		69. I do not know 77. no response	
214	What are the modes of HIV/AIDS transmission?	1. sexual intercourse 2. through infected blood transfusion 3. from health mother to child 4. injection with sterile needle 5. using self sharp materials 6. others 69. I do not know 77. no response	
215	Where do think HIV/AIDS frequently seen in the community you belong?	1. male 2. female 3. youth 4. elder	
216	How can one protect him/her self?	1. abstinence 2. avoiding sexual intercourse 3. avoid using condom 4. avoiding mosquito bite 5. avoiding physical contact 6. others 69. I do not know 77. no response	
217	What is possible ways a mother can reduce a risk of HIV transmission to her baby?	1. using ART 2. through traditional delivery practices 3. breast feeding with additional food 69. I do not know 77. no response	
218	How can a person know his/her HIV/AIDS status?	1. blood test 2. simply by looking 3. physical examination	

		4. others	
219	If the respondent mentioned “mother to child transmission” when does the virus transmit from mother lig with HIV/AIDS to child?	1. when feeding together 2. body contact 3. during breast feeding 69. I do not know 77. no response	
220	Can HIV/AIDS be cured?	1. yes 2. no 77. no response	

PART-3 attitude towards HIV/AIDS transmission and prevention

No	Question	Coding classification	#
311	Are you voluntary to share cloths with PLWHA?	1. yes 2. no	
312	Would you live together with a PLWHA?	1. yes 2. no	
113	Would you live with people living with HIV/AIDS in the same house?	1. yes 2. no	
314	Do you fear to be a friend of HIV/AIDS carrier?	1. yes 2. no	
315	Would you eat meal with PLWHA?	1. yes 2. no	
316	If you knew food sellers had HIV/AIDS, would you buy food from them?	1. yes 2. no	
317	If a teacher is HIV positive but is not sick should he/she be involved to continue teaching?	1. yes 2. no	

PART-4 practice towards HIV/AIDS prevention

No	Question	Coding classification	
411	Did you perform sex with condom at all sexual intercourse?	1. yes 2. no	
412	Would you discuss about HIV/AIDS with your sexual partner?	1. yes 2. no 77. no response	
413	Have you ever tested for HIV/AIDS and discuss the result with your friend?	1. yes 2. no	
414	Would you care for and support victims?	1. yes 2. no	

SCHOOL OF GRADUATE STUDIES

HARAMAYA UNIVERSITY

Guca waligaltee dargaggoota gaaffiif eeraman gaaffii deebisuf qophaa'a ta'uu isaani mirkaneesu

Aanaa _____ ganda _____

Lakkoofsa waraqaa gaaffii kanaf kenname _____

Kabajamoo Dargaggoo,

Maqan koo _____ jedhama. Kanan dhufe Yuniversitii Haramayaa Muummee Saayinsii Uumamaa kuta barnoota Baayoloojii irrati. Qoranno fi Qo'annoo Haala Fafa-ca'iinsa Dhukkuba HIV/AIDS fi Beekumsa, Ilaacha fi Gochaa Dargaggoota Aanaa Wancii dhukkuba kana itisuf taasisan irrati waanan gaggeesuf gaaffiiwwan qorannoo kana ilaalchisee dhiyaatan irratti akka walin mari'anuu isinif ibsuun barbaada. Gara Gaaffiti osoo hin deemin kaayyoo qorannoo kana fi haala waligala isa isini ibsuu waanan barbaaduf seeran akka na dhaggeefatani fi gaaffi kana deebisuf hirmaachu fi hirmaachuu dhiisuu keessan akka na beeksiftanin isin gaafadha. Kaayyon qorannoo kana dargaggooni umuriin isaani waggaa 14-24 ta'an beekumsa, ilaalcha fi gochaa isan dhukkuba HIV/AIDS itisuu irratti taasisan adda baasudhaan bakka hanqinni jiru irratti hojiin karaa qaama ilaalatun akka hojatamuuf haala mijeesa. Qorannoon kun akka galma ga'uuf deegarsi keessan barbaachisaa waan ta'eef gaaffiiwwan 29 kutaa 4 qabatani dhiyaatan kanaaf deebii keessan ofiti amanuudhaan akka deebifan haa ta'u. Waraqaan gaaffii kun fuula 5 qabaachuu isa mirkaneefadha. Waraqaa gaaffii kana irratti maqan keessan hin barreefamuu akkasumas yaadni nama dhuunfaa hin gabasamu. Waan kana ta'eef deebii sirrii dha jetan osoo lakkofsa koodi hin tuqin itti marsaa.

Maqa nama to'atu _____

guyyaa _____ mallattoo _____

Gaaffii Qindaa'aa Afaan Oromoon Qophaa'e

KUTAA-1^{ffaa}: haala jiru fi jreenya hawaasa

No	Gaaffii	Qoqoodama koodii
111	Saala nama deebi deebisuu	1. male 2. female
112	Umurii nama deebi deebisu	1. 12-18 2. 19-24
113	Amantaan kee maalini?	1. protestantii 2. ortodoksii 3. katolikii 4. Muslima 5. aadaa 6. kan biraa
114	Sabni kee kami?	1. Oromoo 2. Amharaa 3. Tigree 4. Guragee 5. kan biraa
115	Sadarkaa barnoota keeti akkami?	1. hin baranne 2. dubbisuu fi barreesu 3. kuta____ 4. BLTO 5. dipilomaa 6. digirii 7. kan biraa
116	Haala gaa'ilaa kee akkami?	1. heerume/fuudhe 2. akkasumati walitti gallee 3. kophaa 4. abba/haadha mana kan dute/du'e 5. gargar jirra

		6. walhiikne	
117	Hojiin kee maalidha?	1. haadha mana 2. mindeefama mootumma 3. mindeefama dhuunfa 4. hojii dhuunfa	
118	Galiin ji'aa hangami?	1. olaanaa 2. gidu-galeesa 3. gadi-bu'aa 4. hin deebine	

KUTAA-2^{ffaa}: Beekumsa dargaggotni fafaca'insa dhukkub HIH/AIDS fi ittisa isa irrati qaban

No	Gaaffii	Qoqodama koodii	
211	Wa'ee HIV/AIDS dhageese?	1. eyyee 2. lakki 77. hin deebine	
212	We'ee HIV/AIDS eessa dhageese?	1. extenshini fayyaa 2. kilinika 3. hospitaala 4. mana barnoota 5. radiyo 6. televizyinii 7. hiriya 8. kan biraa yoo jiraate	
213	Vayirasin kun nama tokko irra gara nama biraati ni darbaa	1. eyyee 2. lakki 69. hin beeku 77. hin deedine	

214	Kara kamiin HIV namati dadarba?	<ol style="list-style-type: none"> 1. wal qunnamtii qaama saala 2. dhiiga faalame arjoomudhan 3. haadha fayyaa irra gara ilmooti 4. marfee hin qulqula'en warannachuu 5. meeshaa qara qabu dhuunfan fayyadamu 6. kan bira 69. hin beeku 77. hin deebine 	
215	HIV/AIDS irra caalati nomoota akkami irrati mulata?	<ol style="list-style-type: none"> 1. dhiira 2. dhalaa 3. dargaggoo 4. namoota dulomoo 	
216	Akkamitti dhukkuba kana irra of eegachuun danda'ama?	<ol style="list-style-type: none"> 1. walqunnamtii qaama saala dhii-suu hanga gaayilati 2. walqunnamtii qaama saala taasisuu dhiisuu 3. kondomii fayyadamuu dhiisu 4. bookeen akka nama hin hidine dhorkuu 6. kan biraa 69. hin beeku 77. hin deebine 	
217	Haati HIV gara mucaa ishiiti akka hin darbine maal gochuu qabdi?	<ol style="list-style-type: none"> 1. qoricha farra HIV/AIDS fudhachuu 2. mala da'umsaa aadaa fayyadamuu 3. aanan harmaa fi nyaata walin kenu 69. hin beeku 77. hin deebine 	
218	Sadarkaa HIV/AIDS akkamiti beekun danda'ama?	<ol style="list-style-type: none"> 1. qorannoo dhiiga gochuun 2. salphaadhumati ilaaludhan 	

		3. qaama isa/ishii buufata fayyaa keessati ilaaludhan 4. kan bira yoo jiraate	
219	Yoo haadha irra gara ilmooti ni darba jete yeroo akkamiti darba?	1. walin nyaachun 2. qaama wal tuqun 3. yeroo harma hoosistu 69. hin beeku 77. hin deebisne	
220	HIV/AIDS irra fayyuun ni danda'amaa?	1. eyyee 2. lakki 77. hin deebifne	

KUTAA-3^{ffaa}: ilaalch fafaca'iinsa fi ittisa dhukkuba HIV/AIDS irrati jiru

No	Gaaffii	Qoqoodama koodi	
311	Dukkubni HIV/AIDS dhukkuba balaa-famaa dha jete ni yaada?	1. eyyee 2. lakki	
312	Hucuu wal jijjiiruudhan dhukkubni kun ni dadarbaa?	1. eyyee 2. lakki	
313	Nama dhukkuba HIV/AIDS qabu walin nan jiraadha jete yaada	1. eyyee 2. lakki	
314	Dhukkubsataa HIV/AIDS walin hiriyaa ta'uu ni sodaata?	1. eyyee 2. lakki	
315	Dhukkubsataa HIV/AIDS dura beektu walin nyaata ni nyaata?	1. eyyee 2. lakki	
316	Nama suuqii keessa nyaata gurguru tokko dhukkubsata HIV/AIDS ta'uu isa yoo beekte nyaata irra bita?	1. eyyee 2. lakki	
317	Barsiisan tokko baattoo vaayirasii HIV ta'un isa yoo beekama barsiisuu isa itti fufa?	1. eyyee 2. lakki	

KUTAA-4^{ffaa}: gochaa HIV/AIDS itisuu irrati taasifame

No	Gaaffii	Qoqoodama koodii
411	Walqunnamtii qaama saala yoomuu taasistuu kondomii ni fayyadamtaa?	1. eyyee 2. lakki 77. hin deebine
412	Jaalallee kee waa'ee HIV/AIDS ni mari'ata?	1. eyyee 2. lakki 77. hin deebine
413	Qorannoo dhiiga taasistee ni beekta?	1. eyyee 2. lakki
414	Namoota vaayirasin HIV/AIDS keessa jiruuf deegarsa taasiste ni beekta?	1. eyyee 2. lakki

SPSS 20 version soft ware Logistic Regression analysis of Socio Demographic Characteristics, KAP and Blood Test

Variable		mother to child transmission	how to know HIV/AIDS status
sex of respondent	Pearson Correlation	-.028	.04
	Sig. (2-tailed)	.572	.000
	N	403	403
age of respondent	Pearson Correlation	.058	-.059
	Sig. (2-tailed)	.249	.237
	N	403	403
ethnicity of respondent	Pearson Correlation	-.019	.02
	Sig. (2-tailed)	.700	.000
	N	403	403
level of education	Pearson Correlation	.015	-.158
	Sig. (2-tailed)	.764	.002
	N	403	403
marital status	Pearson Correlation	-.108	.04
	Sig. (2-tailed)	.030	.000
	N	403	403
income of respondent	Pearson Correlation	-.076	.072
	Sig. (2-tailed)	.126	.149
	N	403	403
mother to child transmission	Pearson Correlation	1	.099
	Sig. (2-tailed)		.046
	N	403	403
how to know HIV/AIDS status	Pearson Correlation	.099	1
	Sig. (2-tailed)	.046	
	N	403	403

Variables		In which community group HIV frequently seen	how protect HIV infection
sex of respondent	Pearson Correlation	-.320**	-.119*
	Sig. (2-tailed)	.000	.017
	N	403	403
age of respondent	Pearson Correlation	.018	.186**
	Sig. (2-tailed)	.716	.000
	N	403	403
ethnicity of respondent	Pearson Correlation	.071	-.129**
	Sig. (2-tailed)	.157	.009
	N	403	403
level of education	Pearson Correlation	.109*	-.381**
	Sig. (2-tailed)	.029	.000
	N	403	403
marital status	Pearson Correlation	-.146**	.150**
	Sig. (2-tailed)	.003	.003
	N	403	403
income of respondent	Pearson Correlation	.433**	.406**
	Sig. (2-tailed)	.000	.000
	N	403	403
frequently seen in	Pearson Correlation	1	.185**
	Sig. (2-tailed)		.000
	N	403	403
how protect HIV infection	Pearson Correlation	.185**	1
	Sig. (2-tailed)	.000	
	N	403	403

Variables		Did you hear about HIV/AIDS	HIV/AIDS transmit from one person to another
sex of respondent	Pearson Correlation	-.099*	.236**
	Sig. (2-tailed)	.046	.000
	N	403	403
age of respondent	Pearson Correlation	.032	-.172**
	Sig. (2-tailed)	.528	.001
	N	403	403
ethnicity of respondent	Pearson Correlation	-.022	-.052
	Sig. (2-tailed)	.656	.296
	N	403	403
level of education	Pearson Correlation	-.083	.158**
	Sig. (2-tailed)	.098	.001
	N	403	403
marital status	Pearson Correlation	.072	-.373**
	Sig. (2-tailed)	.151	.000
	N	403	403
income of respondent	Pearson Correlation	.063	-.098
	Sig. (2-tailed)	.205	.050
	N	403	403
hear HIV/AIDS	Pearson Correlation	1	-.023
	Sig. (2-tailed)		.638
	N	403	403
HIV/AIDS transmit from one person to another	Pearson Correlation	-.023	1
	Sig. (2-tailed)	.638	
	N	403	403