ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF HIV/AIDS KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) AMONG HIGH SCHOOL STUDENTS IN YEKA SUB CITY, ADDIS ABABA, ETHIOPIA

BY

HELEN TSEGAYE

December, 2021

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF HIV/AIDS KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) AMONG HIGH SCHOOL STUDENTS IN YEKA SUB CITY, ADDIS ABABA, ETHIOPIA

BY

HELEN TSEGAYE

THESIS ADVISOR: CHALACHEW GETAHUN, (PHD)

A THESIS SUBMITTED TO THE CENTRE FOR POPULATION STUDIES, COLLEGE OF DEVELOPMENT STUDIES OF ADDIS ABABA UNIVERSITY FOR THE PARTIAL FULFILMENT OF DEGREE OF MASTERS OF SCIENCE IN POPULATION STUDIES (REPRODUCTIVE HEALTH)

December, 2021

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared by Helen Tsegaye Haile entitled:- ”Determinants of HIV/AIDS Knowledge, Attitude and Practice (KAP) among High School Students in Yeka Sub City, Addis Ababa, Ethiopia ”and submitted in partial fulfilment of the requirements for the degree of master of science in population studies (Reproductive Health) complies with the regulations of the university and meets the accepted standards with respect to the originality and quality.

Approved by the Examining Board

_____	_____	_____
External Examiner (Name)	Signature	Date
_____ _____	_____	_____
Internal Examiner (Name)	Signature	Date
_____	_____	_____
Advisor (Name)	Signature	Date
_____	_____	_____
Centre Head or Graduate Program Coordination	Signature	Date

ACKNOWLEDGMENTS

First, I would like to express my deepest inspire, respect and thanks to my God & to his mom virgin Marry. Everything in my life is under control by God, because of the God permit to be alive and wellbeing to do this thesis. Then my grateful gratitude goes to my adviser Chalachew Getahun (PhD) for his valuable supportive ideas while I was preparing this thesis. I would also like to acknowledge and recognize some of my classmate colleges for sharing me their best experience and knowledge about how to prepare the thesis. Lastly, but not list I would like to say thank you to my family, T/mikaile, Dagimawit, Hablu, Birra & most of all the participant.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS & ABBREVIATIONS

AIDS - Acquired Immune Deficiency Syndrome

CSA - Central Statistics Agency

DHS - Demographic and Health Survey

HAART - Highly Active Antiretroviral therapy

HIV - Human Immune Deficiency Virus

IEC - Information, Education and Communication

KAP - Knowledge, Attitude and Practice

PLWHIV/AIDS- People live with HIV/AIDS

SRS - Simple Random Sampling

SPSS - Statistical Package for Social Science

STD - Sexually Transmitted Diseases

WHO - World Health Organization

ABSTRACT

Knowledge, attitudes and practices (KAPs) regarding HIV/AIDS is one of the corner stone in the fight against the disease. Youths, especially high school students, are most vulnerable to infection, among others due to lack of adequate information, bad attitude towards PLWHIV/AIDS, and risky sexual practices. Evaluation of their KAPs remains crucial in designing appropriate prevention strategies. This study sought to investigate the determinants of HIV/AIDS transmission and prevention knowledge, attitude and practice among high school students in Yeka Sub City of Addis Ababa. The study employed multivariate binary logistic regression to analyze the patterns and determinants of the disease, using cross-sectional data collected from randomly selected 608 students aged 15–22 years. All respondents reported to have heard about HIV/AIDS before. However, misconceptions about routes of transmission were observed in 20 % of respondents. In addition, out of the total study participants, 89 (14.6%) have ever been exposed to sexual intercourse, but only 20 (22.47%) of them used condom during intercourse. In terms of determinants, students, who were at higher grade level, were more likely to have higher HIV/AIDS transmission and prevention knowledge than those in lower grade levels (AOR: 15.5; P=0.001: 95 % CI: 3.036- 80.05). Respondents whose mothers achieved secondary education compared to those students whose mothers were unable to read and write were more likely to have more positive attitude towards PLWHIV/AIDS (AOR: 0.24; P=0.007; 95% CI: 0.06-66). Students had a satisfactory level of knowledge on HIV/AIDS transmission and prevention. None-the-less misconceptions about HIV transmission, intolerance and discriminatory attitudes towards PLWHIV, and risky sexual practices were observed among study participants, which can be minimized by boosting their knowledge through sex education since the latter was their main source of information on HIV/AIDS. In addition, maternal education status and fathers' education status are also determinants of high school student HIV/AIDS KAP so there should reinforcement of educational interventions particularly in the secondary school and Parents should be thought, and work with to change their attitude and belief about communication with their children in order to protect youth from the virus.

Keywords: *HIV/AIDS; knowledge, attitude, practices (KAP); PLWHIV/AIDS determinants transmission & prevention*

CHAPTER ONE

INTRODUCTION

1.1. Background

Globally, there are over 1.8 billion adolescents and young people (AYP) (UNFPA, 2012). They constitute one- quarter of the world population with 90% living in developing countries where they tend to make up a large proportion of the population (UNFPA, 2012). Among these an estimated 10 million people aged 15-24 are living with HIV/AIDS and half of all new infections occur among young people (UNAIDS, 2004). Widespread HIV prevalence rates among the world's youth can be attributed to their physical, social, psychological, and economic vulnerabilities. Often, young people may not perceive themselves to be at risk or they do not have access to reproductive health (RH) (USADIS, 2002). Two-thirds of all young people living with HIV/AIDS live in sub- Saharan Africa, and 75 percent of these are young women (USAIDS, 2002). Poverty and lack of education and employment opportunities can lead young people to engage in risky behaviors, such as exchanging sex for money (USAIDS, 2002). While young people are extremely vulnerable to HIV, they are also making remarkable progress in changing behaviors to decrease their vulnerability and offer the greatest hope to change the course of the epidemic (USAIDS, 2002).

In Ethiopia overall, 0.2 percent of young women and men aged 15-24 are HIV-positive. HIV prevalence among adolescent girls and young women aged 15-24 is three times higher than boys in the same age (female 0.3% and male 0.1%) (CSA, 2018).Many adolescents have limited knowledge of health issues, especially sexual and reproductive health and right (SRHR) and HIV, mainly due to poor access to information (Kihara et al., 2017). They are rarely exposed to the relevant information they need at home, school or in other environments (Kihara et al., 2017). When information is provided, it is often not presented in an interesting or creative way to capture their attention (Kihara et al., 2017). The messages presented may not use appropriate language or may include limited and biased information, reflecting sex and sexuality in a negative light (Kihara et al., 2017). In the absence of accurate, comprehensive information, adolescents often rely instead on their peers as a source of knowledge (Kihara et al., 2017).

Information on KAP among secondary school students is important in designing intervention strategies to protect them from infection. This is very necessary and prepares them for the university when they leave home and are no longer under parental guidance. Otherwise, they may take wrong sexual decisions increasing their risk of infection. Although most of the residents in Addis Ababa are considered to have access to awareness programs, knowledge of the disease, better access to health care and opportunity to obtain preventive mechanisms such as the use of condoms, currently Addis Ababa is reeling from unprecedented spread of the virus.

So this study tries to analyze determinants of HIV/AIDS prevention and transmission knowledge, attitude towards people living with HIV/AIDS, and safe sexual practice among high school students in Addis Ababa. And also to fill the Gaps concerning Knowledge and misconceptions in areas of HIV transmission, unfavorable attitudes and risky sexual behavior that are the major hindrances to prevent the spread of HIV/AIDS found in the study conducted before in Hawassa (Semungus et al., 2017) and in Jimma (Yaleyesh et al., 2003).

1.2. Statement of the Problem

Many adolescents have inadequate knowledge of health issues, especially sexual and reproductive health and right (SRHR) and HIV, mainly due to poor access to information. They are rarely uncovered to the information they need at home, school or in other environments. When information is provided, it is often not presented in an interesting or inspired way to capture their attention. The messages presented may not use proper language or may include limited and biased information, reflecting sex and sexuality in a negative light. In the absence of accurate, comprehensive information, adolescents often rely instead on their peers as a source of knowledge (Kihara et al., 2017).

Like all people, adolescents are at risk of contracting HIV if they participate in high risk behaviors like unprotected sex and unsafe substance use. That being said, there are a number of factors that increase adolescents' exposure to HIV infection beyond individual behaviors. These social factors include income, employment, unstable housing and homelessness, and access to services (CATIE, 2012; PHAC, 2014g). Other compounding factors include low perception of risk, low rates of HIV testing, inconsistent condom use, high rates of STIs, having older sexual partners, and inadequate HIV prevention education and services (CDC, 2014b; Kirby, 2002b).

The United Nations Population Fund (UNPFA) states that young people have grown up in a world altered by HIV/AIDS, but many still lack the knowledge and skills necessary to prevent HIV infection. It is for this reason that WHO (2009) recommends increasing interventions that target school-aged children before they become sexually active or involved with alcohol and drugs.

The WHO data reveals that up until the end of 2016 more than 70 million people worldwide have been infected with HIV/AIDS of whom about 35 million have died of HIV/AIDS and related complications. Currently, Sub-Saharan African is home to about 36.7 million people living with the virus, making it the most exaggerated in the world.

Data from FHAPCO (Federal HIV/AIDS Prevention and Control Office) indicates that there are over 718,550 people living with HIV in Ethiopia alone, a little over 1.18% of the population. According the globally accepted agreement, if the total number of HIV infected people in a given country exceeds the one per cent threshold of the population, that country is considered to be under category of 'outbreak of the virus.'

The 2016 Ethiopian Demographic Health Survey (EDHS) reveals that around 56% of the women and 55% of the men among the surveyed household have never been tested for HIV, an indication the current number of HIV positives in the country could be a lot more had all the population been tested. And, despite the existence of the large number of people living with HIV/AIDS, only 72% of them are thought to be conscious that they are living with the virus; the remaining 28% think they are not infected (EDHS 2016).Among the predictable four million residents thought to live in Addis Ababa HIV prevalence stands at a staggering 5% according to the FHAPCO data, which places the city on top of all regions in the country followed by Gambela (4%), Harar and Dire Dawa (2.9% each). Although most of the residents in the capital are considered to have access to awareness programs, knowledge of the disease, better access to health care and chance to obtain protective mechanisms such as Condoms, currently Addis Ababa is reeling from unprecedented spread of the virus.

Since HIV/AIDS first emerged globally, the role of behavior change has been recognized as critical to the control of the pandemic and the sentence "Education is the only vaccine against AIDS" was commonly aired to control it (Liskin L et al., 1989). According to Information, Education, and Communication (IEC) model "clear information presented in correct format

and language would persuade those at risk to protect themselves from the virus" (UNFPA, 2001).

Past studies analyzing the determinants of HIV/AIDS prevention and transmission knowledge, attitude towards people living with HIV/AIDS, and safe sexual practice among high school students in Ethiopia are abundant in general (see e.g., Semungue et al.,2015; Abebe G.et al.,2000.; Yitaylsh et al.,2009; Cherie, 2000; ...). The studies found various results with regard to the determinants of HIV/AIDS transmission and prevention KAP. For example, Semungue et.al,2015 (January 05, 2017) found students educational level & parental education were to be statistically significant to be positive determinants of good HIV/AIDS transmission and prevention knowledge , while author Abebe G.et al.,2000 (May 16,2000) found availability of radio as statistically significant determinates of good HIV/AIDS transmission and prevention knowledge. While results vary as such, but overall, we can conclude, from these studies that educational level, parental eructation and availability of radio are statistically significant determinants/predictors of determinants of HIV/AIDS prevention and transmission knowledge, attitude towards people living with HIV/AIDS, and safe sexual practice among high school students. However, several issues emerge from these past studies. First, majority of the studies that analyzed the issue have problems conceptually which was not conceder parental occupation as a determinant.

Therefore, this study seeks to analyze determinants of HIV/AIDS prevention and transmission knowledge, attitude towards people living with HIV/AIDS, and safe sexual practice among high school students in Addis Ababa. The contribution of this paper is to show current determinants of HIV/AIDS prevention and transmission knowledge, attitude towards people living with HIV/AIDS, and safe sexual practice looks like among high school students in Addis Ababa including by felling the gap showed in the previous study conceptually.

1.3. Research Objectives

1.3.1. General Objective

The objective of this study was to investigate the patterns and determinants of HIV/AIDS transmission and prevention knowledge, attitude (KAP) towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub City, Addis Ababa 2021.

1.3.2. Specific Objectives

The specific objectives of this study were to:

- Assess HIV/AIDS prevention and transmission knowledge among high school students in Yeka sub city Addis Ababa, Ethiopia
- Assess attitude towards PLWHIV/AIDS among high school students in Yeka sub city Addis Ababa, Ethiopia
- Assess safe sexual practice among high school students in Yeka sub city Addis Ababa, Ethiopia
- Assess determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub City, Addis Ababa.

1.4. Research questions

- What is the level of HIV/AIDS prevention and transmission knowledge?
- What is the attitude of high school students towards people living with HIV/AIDS?
- What is HIV/AIDS prevention practice look like in high school students?
- What are the determinant that affects HIV/AIDS prevention and transmission, knowledge, attitude and practice?

1.5. Significance of the Study

Providing adolescents with precise, age-appropriate information about HIV and how to prevent it should be the first objective of any HIV prevention program. This information should address common misconceptions about HIV preventive behaviors (e.g., douching, using birth control pills). If these misconceptions are not addressed, adolescents may increase their risk of HIV even though they consider they are participating in preventive behaviors. Research suggests that misconceptions such as these are common. For example, (Di Clemente et al.,2002) highlight studies showing that as many as 46% of youth believed douching could protect them from STIs, including HIV; 39% believed urinating after sex was

protective; and 20% believed oral contraception would protect them from HIV. In order to be successful, programs must first ensure they are providing accurate information that addresses any myths or misconceptions.

Many of the behaviors that are high risk for HIV infection also put adolescents at risk for STIs and unplanned pregnancies. It is for this reason that many international organizations are now advocating for a shift toward more inclusionary models of health promotion (e.g., UNESCO, WHO) (Flicker et al., 2009). There has also been a shift toward more holistic, inclusive prevention programming that aims to increase the odds of positive development and healthy outcomes (CATIE, 2014b). According to UNAIDS (2010), comprehensive services are necessary for successful HIV prevention; such services should include sexuality education, knowledge of HIV, access to sexual and reproductive health services, and discussions on harmful sexual norms and harm reduction.

Just as schools are critical settings for preparing students academically, they are also vital partners in helping young people take liability for their own health. School health programs can help youth adopt lifelong attitudes and behaviors that support overall health and well-being including behaviors that can reduce their risk for HIV and other sexually transmitted diseases (STDs). HIV/STD prevention programs implemented by schools include prevention education programs designed specifically to decrease sexual risk behaviors and youth asset-development programs, which provide adolescents with more general skills that help them engage in healthy behaviors and solve problems.

This study has a significance use by identifying determinants of HIV/AIDS transmission and prevention knowledge, attitude (KAP) towards PLWHIV/AIDS, and safe sexual practice among high school students, which clearly show the gap and help all concerning body give consideration to reduce the mortality and prevalence of HIV/AIDS disease among highly active age groups. Therefore, the study will helpful in providing information about determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub City, Addis Ababa, Ethiopia 2021.

1.6. Scope and Limitations of the Study

The study of determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub

City was carried out based on pre tested and standardized questionnaires for sample size of 617 students. This study restricted only determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among High School Students and all the participating institutions were day schools in Yeka Sub City which may not be generalized to other sub city and school youth who attend their class at night because of transportation problem for the data collectors. In addition the research limited on quantitative data analysis that could not be able to used qualitative research for more understanding of the the practice of HIV/AIDS prevention.

CHAPTER TWO

REVIEW OF THE LITERATURE

2.1. Conceptual Literature

Human immunodeficiency virus (HIV) infection remains the leading cause of morbidity and mortality throughout the world. Since the start of the epidemic, around 76.1 million people have become infected and 35.0 million people have died from AIDS (acquired immunodeficiency syndrome) related illnesses. Globally, in 2016 there were 36.7 million people living with HIV, 1.8 million new HIV infections, and 1 million AIDS related deaths (UNAIDS, 2017). Sub-Saharan Africa (SSA) contributed 76% of the total HIV-infected people, 76% of the total new HIV infections and 75% of the total HIV/AIDS deaths in 2015 (Wang.H, et al., 2015).

In Ethiopia, the first confirmation of HIV was found in 1984 and the first AIDS cases were identified in1986. Since then in urban areas, more than one out of six adults is infected. Ninety percent of the reported cases occur in the most economically productive age group that is, between the ages of 20 and 49 years (MOH, 2000).As one of the sub-Saharan country the case in Ethiopia is not different. It is characterized by a low-intensity, mixed epidemic and self-sustaining transmission with a prevalence of 1.1%. In 2016, there were 720,000 people living with HIV (PLWHIV) and 27,104 newly diagnosed cases. But only 67% of expected people living with HIV know their status and 59% of them were enrolled in highly active antiretroviral therapy (HAART) program, while significant proportion people living with HIV were died (EPHI, 2017).

Realizing the overwhelming and tragic effect of AIDS in all sectors of human development, the Ethiopian Government established a National Task Force on the Prevention and Control of HIV Infection, prior to the reporting of the first AIDS cases in 1985. The task force in collaboration with experts from the global program on AIDS formulated the short and medium term plans for the prevention and control of AIDS in 1987(Zewdie. D et al., 1990).

In 1987 the National AIDS Control Program was launched within the MOH at a departmental level with six divisions: IEC, surveillance and research, clinical aspects of AIDS, Laboratory and blood transfusion, Sexually Transmitted Diseases (STD) and Administration (Zewdie.D et al., 1990).

2.2. Theoretical Literature

For this particular study The Theory of Planned Behavior (TPB) will be used to assess HIV/AIDS Transmission and Prevention of Knowledge, Attitude and practice among High School Students. The Theory of Planned Behavior (TPB) started as the Theory of Reasoned action in 1980 to predict an individual's aim to engage in a behavior at a specific time and place. The theory was intended to explain all behaviors over which people have the ability to exert self-control.

The key element to this model is behavioral intent; behavioral intentions are influenced by the attitude about the likelihood that the behavior will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome (Rathavuthet al., 2008). The TPB has been used successfully to predict and explain a wide range of health behaviors and intentions and it states that behavioral achievement depends on both motivation (intention) and ability (behavioral control). It distinguishes between three types of beliefs – behavioral, normative, and control.

Theory of Planned Behavior can be broken down into three conceptually Semunigus et al., 71 independent antecedents leading to behavioral intention (BI): Attitude toward the Behavior (Aact), Perceived Behavioral Control (PBC) and Subjective Norms (SN) (Ajzen, 1991; Fishbein et al., 2003). Attitude toward the behavior measures the degree to which a person has a negative or positive evaluation toward his/her performance of the behavior.

Apparent Behavioral Control refers to people's perceptions of whether or not they can perform that specific behavior and how easy it is to perform. Subjective Norms refer to what individuals believe other key people in their lives think about whether or not the individual should perform the behavior. The perceived opinions of these key people help determine whether a person will actually perform the behavior (Pankaj et al., 2012). Consequently, the extended form of theory of planned behavior will be used for the present study as a conceptual framework by making modification to meet the intended purpose.

The student's attitude and knowledge directly influence their behavior and their actions. Socioeconomic status (SES), gender and demographic data are the potential variables that influence the level of knowledge, attitude and intention of student on HIV/AIDs.

According to theory of planned behavior, intention has the power to predict behavior. High or low socioeconomic status, being socially male and female and the demographic data would

result in high or low knowledge, positive or negative attitude and strong or weak intention to engage in HIV/AIDS risky behavior. Studies on knowledge, attitude and practice regarding HIV/AIDS among adolescents in Ethiopia are insufficient and I believe there must be a continuous assessment of the same. Hence, a clear understanding about knowledge, attitude and practice among youngsters is essential for planning activities to control or prevent the spread of HIV. So it is important to conduct this study among high school students in order to determine their knowledge, attitude and practice regarding HIV/AIDS. Thus, the present study is intended to identify patterns and determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub City.

2.3. Empirical Literature

Although, AIDS prevention strategies recognize the vital importance of young people's access to information it is often withheld intentionally or omitted because of adult fears, lack of experience and knowledge (WHO,1996). Youth need appropriate and practical messages at every stage of development to cope with the changes they are experiencing. Too often they receive confusing messages about sexuality (Hughes J & Ann P, 1998). Targeting specific audiences is crucial to the success of IEC program. Because, not all messages appeal equally to everyone IEC interventions should be need based, planned, consistent and equally reinforcing. The extent of learning is greatly influenced by the audience's willingness to learn, and by what the learner brings to the learning situation. For learning will be facilitated or hindered by the subject's previous learning, the learners basic motivation for learning, the audiences frame of reference and the subjects personal maturity and adjustment. The nature of communication and the credibility of the source must also be factored into the equation to effect safe behavioral practices (Gali N & Herbert H ,1987).

Individuals level of learning increase as learning occurs in the cognitive, affective and action domains. On the top of that, IEC should go beyond acquaintance level of learning in each domain. Awareness of AIDS is a superficial measure of knowledge. Current public health strategies to manage the transmission of HIV disease focus on modifying risk behaviors. Most efforts to attain this goal have been based on the conviction that individuals, when presented with the correct information will change their behavior in response to that information. Whether this assumption is correct or not the evidence is mixed. The fact is that many interventions have pointed to increase knowledge as a prerequisite for changing

behavior and thus controlling the transmission of AIDS. Previous research has indicated that though knowledge is important, it has not been found to be strongly related to behavior change and the adoption of safer sex practices.

A study on high school students pinpointed that many students fail to use knowledge as a basis for guiding their behavior (Dumiso M.et al., 1994).Several studies conducted in diverse countries reported level of knowledge, attitude and behaviors of adolescents towards prevention of HIV/AIDS. The study conducted at Tanzania in 2005 show that93.7% of students knew how HIV is transmitted and 86.6% knew faithfulness to one partner as best methods for HIV prevention. Despite of the knowledge they have, very few students reported to have use condom in their last sexual contacts (Kemala, 2005).Young people in Malawi become sexually active at an early age. Almost 60% of secondary school student's interview by Band Aiwa and faster in 1996 said that they were sexually active with a mean age of first intercourse being 15 years. While there is little good quality evidence it also seems that adolescents in Malawi are becoming sexually active younger. Male focus group discussion in Malawi indicated that there was strong peer pressure to become sexually active. The guys who have girlfriends are seen as hero as "However less than one quarter of sexually active adolescents constantly used condom (Malawi country report, 2010).

According to Behavioral surveillance survey (BSS) in 2002, about 98%of the study population where aware of HIV/AIDS. Almost all groups knew at least one prevention method. The study show that significant proportion of the population was at increased risk of HIV infections despite high level of knowledge. Similar observations were found in other studies, Awareness of HIV/AIDS among worker in the informal sectors in Addis Ababa was found to be 96.3%.

This study also revealed that there was a 34.1 of misconception rate on the way of transmission of HIV/AIDS (Degu, 2002). The KAP study that was done in 1997 on high school students show that the students have good knowledge about the HIV/AIDS although found to be have risky sexual behavior (MHO, 2002).

The study conducted in Gondar in 2007 show that, the majority (97.5) of the participants responded that HIV/AIDS is an etiologic agent for AIDS. Unprotected sex, unsafe blood transfusion, contaminated needles and mother to child transmission were reported by 84.6%,64.2%, 78.8% and 69% of the students correspondingly as the common ways of HIV transmission (Abera Z, 2003).Only 3.6% reported mosquito bite (2.5%), shaking hands

(0.7%)and eating and drinking with infected individual (0.4%) as mode of HIV transmission. Abstinence, faithfulness to one's partner and use of condom as a means to prevent transmission on HIV was responded by 84.1%, 60.4% and 41.8% of student respectively. Avoiding social life with AIDS patients was reported by 1.8% of the respondents as way to prevent transmission of HIV infection (Gashaw A et al., 2007).

The study done in Gondar, Ethiopia, in 2009 shows that, all students had heard about HIV/AIDS before the interview. The sources of information were radio (50%), Television (46.7%), newspaper (33.3%), teacher (25%), parents (21.7), Health workers (13.3%) and youth club (11.7) where more than one source were common. About (34%) of the students (respondents) had negative attitude towards HIV, AIDS patients and other STDs. 40% of sexually active respondents had multiple sexual partners including commercial sex workers (CSWS) indicates that such rising behavior can predispose the students to the accusation of STDs (Yitaylsh et al.,2009). More than 30% of the students associated AIDS with an immoral lifestyle and even recommended isolation of AIDS patients. Half of the students favored for screening of HIV/STIs. However one third of the students were not willing to visit infection control clinic following acquisitions of STDs other than HIV/AIDS (Nibiyo H, 2006).

According to the BSS (2005) report in Ethiopia, only 9.3% and 13%of the in-school youth and the out-school youth had undergone HIV test respectively. Studies undertaken in Ethiopia and other countries have shown that having stigmatizing attitude towards people living with AIDS (PLWHA) was associated with lower likelihood of HIV testing while being female or married were associated with higher odds of HIV testing. Various studies had shown that having had sex with multiple sexual partners, are those at risk and neighborhood knowledge of a test were associated with increased previous HIV testing (Nigussie T, 2006).The study conducted in Hwassa shows that 93.8% of those who responded to have heard about HIV/AIDS remembered up to three mode of disease transmission. Among these, some had wrong conceptions and speculation about HIV/AIDS transmission, such as kissing and saliva by 5.3%, body contact by 4.8% and air droplet by1.5%.

The three major risk factors perceived to expose a person for HIV infection were sexual promiscuity, taking injections, using unsterile needles and frequent sexual contact with commercial sex workers in that respective order (Bazzeew B , 2012).

Study done in Jimma on high school students show that about100% of the respondents know or heard about HIV/AIDS. Radio and television is the main source of information (97.4%) and include other sources. However, only 53% rely on radio/television only. Only 39.5 got information from religious institution. About 10.5% of the subjects had undergone HIV testing and counseling. Only 57.9% of the students would change their behavior to avoid contracting HIV/AIDS. About21.1% of the respondents doesn't know if a person looks healthy is infected with HIV or not (Belaynesh et al., 2005).

The study that conducted in Jima zone Agaro town in 2001 indicates 40% of males and 7.5% females reported to have 2-5 and more than 5 partners respectively. Among 90 students sexual exposure 54.4% of them use condom at least once.

Of those 55.7% were males and 50% were females. Among those who had used condom, 46.9% used always and 38.8% used occasionally (Yaleyesh N et al., 2003).

HIV/AIDS Information Intervention and Behavior Change With consider to adolescent sexual behavior, the desired behavioral modifications as a result of information intervention programs would include the following: delayed onset of sexual initiation, decreased frequency of sexual intercourse, reduction in number of partners, increased use of condoms at every instance of sexual activity, not offering sex for money and total abstinence from sexual intercourse until marriage.

2.4. Synthesis of the Review

Human beings tend to act in terms of what they know, expect, on hopes that actions may yield. How they behave with respect to any situation tends to be in harmony with how they perceive or define the situation. In the same token, if KAP on HIV/AIDS is perceived useful and people accept the information, they will be motivated to take action, adopt the action and change their behavior. This happens when the needs, interests, wants, and concerns of the audience, their opinions, attitudes and beliefs, the values they hold, their psychological sets and the assumptions that govern their health behaviors are considered in designing IEC. Such information regarding the audience is of crucial significance. Of equal importance is the knowledge they have regarding the possibilities for action in relation to HIV/AIDS and the possibilities for action they perceive as feasible and appropriate for themselves. Attention needs also to be given to the types of information sources they prefer their independent or dependent patterns of behavior and their information and channel preferences. However, little attention has been given to this component in Ethiopia. Furthermore, assessment of the KAP of youth about HIV/AIDS is inadequate in this country. On the other hand, young people are more likely to adopt and maintain safe behaviors if they get appropriate, relevant and practically applicable messages. Therefore making youth excellent candidate for prevention efforts will reduce youth exposure to HIV and ultimately result in fewer infections among the general population. Thus to generate such information this study was conducted among high school students in Addis Ababa. It tried to assess patterns and determinants of HIV/AIDS transmission and prevention knowledge, attitude towards PLWHIV/AIDS, and safe sexual practice among high school students in Yeka Sub City.

CHAPTER THERE

DESCRIPTION OF THE STUDY AREA & RESEARCH METHODOLOGY

3.1 Research Approach

Quantitative study design approach was used to assess HIV/AIDS Transmission and Prevention of Knowledge, Attitude and practice among High School Students. Quantitative study design was chosen in order to test the relationship and generalize the results to the study population (Oberiri,2017).

3.2. Research Design and Study Period

The study design was a descriptive cross-sectional survey with high school students in Yeka sub city Addis Ababa. The study seeks to analyze determinants of HIV/AIDS transmission and prevention knowledge, attitude and practice (Lorraine et al., 2007).

3.3. Sampling Techniques and Sample Size

3.3.1. Sampling Technique

The study design was a descriptive cross-sectional survey with high school students in Yeka sub city Addis Ababa. A two-stage sampling was used for the survey: the first stage was selection of schools while the second was selection of students. There are 25 high schools in Yeka sub city, among which ten high schools (i.e., kokebe tsibiha, keftegna 12, birhan guzo, lemlem, yeha, kebena Adventist, tesfa birhan, selam number 1, ediget chora & abado secondary schools) were selected. From each school study participants were selected from grades 9, 10, 11 and 12 students were selected from each school by using proportionate allocation size.

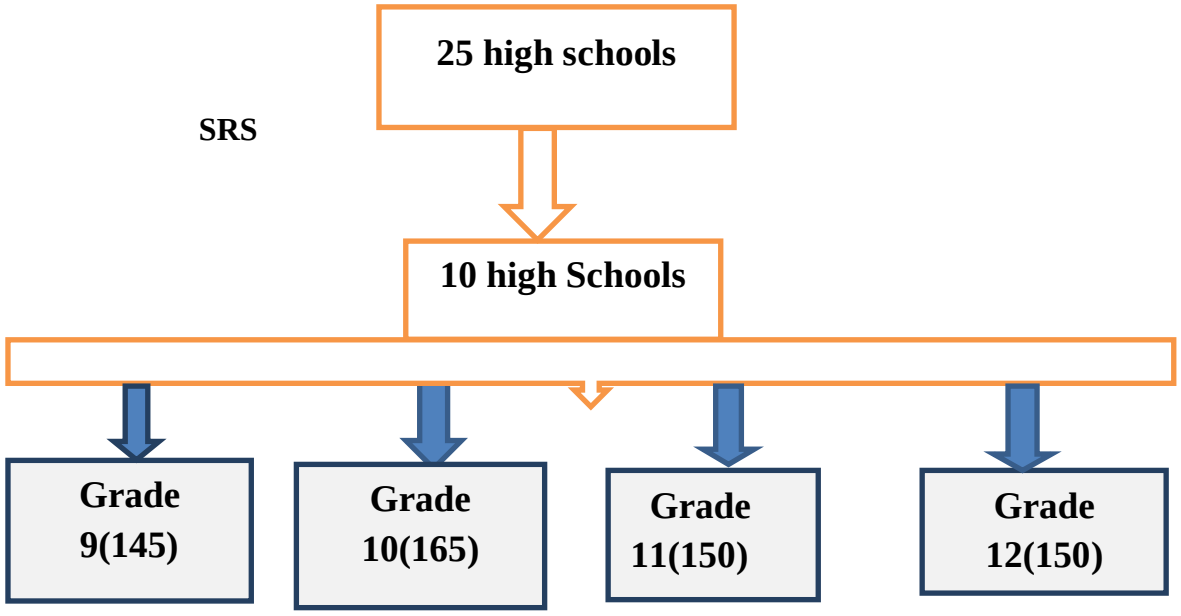

Fig.1 Sampling Technique

3.3.2. Sample Size Determination

The sample size was determined using a formula for a single population proportion and calculated by Open Epi Info version 7. It was calculated based on the following assumptions: a proportion (p) of 58% of HIV/AIDS prevention & transmission KAP (Cherie, 2000); a level of significance at 95% confidence interval; and a margin of tolerable sampling error of 5%. The sample size was calculated to be 561, and after adding 10% for non-response in simple random sampling (Knaub, 2017), the final sample size becomes 617.

$$N = \frac{[Z\alpha^2/2] \text{ X } P\ (1\text{-}P)*df}{d^2}$$

Where

n = sample size

p = proportion of KAP of HIV/AIDS prevention & transmission (58%)

d = maximum allowable error (margin of error) = 0.05

Z = value of standard normal distribution (Z-statistic) at 95% confidence level (z=1.96).

$$N = \frac{(1.96)\ (1.96)\ (.58)\ (.42)}{(0.05)\ (0.05)} = 374*1.5 = 561$$

With 10% non-response 561+56 = 617

3.4. Data Collection Techniques and Procedures

Primary data was collected using pre tested and standardized questionnaires. A closed and open ended self-administered questionnaire were prepared in English, which was translated to Amharic and then back to English to ensure content consistency and reliability. The data was collected by two trained data collectors (clinical nurses), supervised by one supervisor (first degree holder in public health) and was coordinated by the principal investigator.

3.5. Variables Description and Measurement

Table 1: Variables Description and Measurement January, 2021

	Variables	**Description/definition**	**Measurement**
Independent variables	Age	Age from 15-22	Complete age in years
	Sex	Gender of respondent	Male = 1; Female = 0
	Respondent grade level	Grade 9 through 12	Grade 9 = 1; Grade 10 = 2 Grade 11 = 3; Grade 12 = 4
	Occupation (both parents)	Means of earning monthly income	Being government employee = 1; Private employee = 2; Daily labor or other = 3
	Parental eeducational status (both parents)	Educational level achieved or not	Unable to read & write = 1 Able to read & write = 2 Primary(1-6) = 3 Junior(7-8) = 4 High school (9-12) = 5 Diploma = 6 Degree = 7 Master = 8
	IEC materials exposure:	Exposure to media (TV, radio, newspaper, posters, leaflets, school lessons, peer educators, religious leaders and parents and social media).	*1,* if exposed to any one of them; *0,* otherwise (Cherie, 2000).
	discussion about HIV/AIDS with your parents	Discussion about HIV/AIDS transmission and prevention methods	*1*,if discussed ; *0*, otherwise
	Anti AIDS club in the school	Availability of Anti AIDS club in the school	*1*,if yes; *0*, otherwise
	Member of Anti AIDS club	Membership of Anti AIDS Club	*1*,if yes; *0*, otherwise
Dependent variables	HIV transmission and prevention knowledge	The level of knowledge of the ways HIV is transmitted and prevented from 17 equations.	*Low* if the mean score of the respondents is less than 7.18(±1.54) ; and *High*, if the mean score is ≥7.18(±1.54) (Nubed et.al, 2016).
	Attitude towards HIV transmission& prevention	The type of respondent's attitude towards people living with HIV/AIDS from 7 equations.	*Negative attitude* if mean score of the respondents is less than 4.93(±1.36); and *Positive attitude* if the mean score is ≥4.93(±1.36)(Nubed et.al, 2016).
	HIV/AIDS prevention practices	The type of HIV prevention practices adopted by the respondent from 7 equations.	*Risky practices* if the mean score of the respondent is less than 4.33(±2.66); and *Safe practice* if the mean score is ≥4.33(±2.66)(Nubed et.al, 2016).

3.6. Data Analysis Techniques

A data analysis was carried out using SPSS Version 24. The dataset was checked for cases which fulfilled all the inclusion criteria. Basic characteristics of the participants were described using frequencies and percentages. As with the determinants or correlates of the HIV/AIDS transmission and prevention knowledge, attitude or practice, first, relevant factors were explored using a bi-variate analysis. Second, based on this, variables with p-values of less than or equal to 0.25 in the bivariate analysis were included in the multivariable logistic regression analysis given the research questions and objectives, three multivariate models were fitted. These are determinants of HIV/AIDS transmission and prevention (1) knowledge, (2) attitude, and (3) practice. For all the three models, the adjusted odds ratios,(with corresponding 95%CI) was used to analyze the results.

3.7. Ethical Clearance

Conducting this study was started after obtaining approval from Ethical Review Committee (ERC) Addis Ababa University. Then letter from Addis Ababa City Administration education Office and permission was obtained from relevant authorities at all levels. Prior to the interview consent was obtained from study participants. There was information for participants about the voluntary basis of Participation and that they can stop the interview at any time if they are not comfortable, and no names or personal identifiers were included in the written questionnaires. Identification of an informant was only possible through numerical codes for the purpose of data analysis. The finding of the study will be disseminated in hard and soft copy form and delivered to Addis Ababa University and Addis Ababa City Administration education Office and also published on scientific medical journal.

CHAPTER FOUR

RESULTS AND DIDCUSSION

4.1. Socio Demographic Characteristics of Respondents

A total of 617 high school students aged 15-22 were identified from ten high schools. Of these data were collected from 608 students comprising 98.5% of the response rate. From the 608 subjects, 464(66.6%) were females and 144(33.4%) were males. In addition 560(92.1%) were in the age of 15, 16, 18 & 19 years the rest 7.9% were in the age of 20, 21 & 22 years. The mean and median age of the study population were 17.1(+1.5) and 17years respectively. Most of the respondents (57.9%) were living with both parents. The table shows that 23.8%, 26.8%, 24.7%, and 24.7% of the respondent students were grades 9, 10, 11 and 12 respectively. Regarding parental education 241(26.7%) and 347(38.5%) of respondents reported their father and mother respectively were without formal education.

Table 2: Socio demographic characteristics of respondents January, 2021

Variable	Category	Frequency (%)
Sex	Male	405(66.6)
	Female	203(33.4)
Age	15-19	560(92.1)
Religion	Orthodox	508(83.6)
	Muslim	55(9)
	Protestant	40(6.6)
	Catholic	5(0.8)
Live with	Both parents	352(57.9)
	With mother	75(12.3)
	With father	30(4.9)
	With grandparents	48(7.9)
	Relatives	76(12.5)
	Others	17(2.8)
	Lonely	10(1.6)
Father education	Unable to read and write	25(4.1)
	able to read and write	93(15.3)
	Primary	37(6.1)
	Junior	49(8.1)
	High school	168(27.6)
	Diploma	93(15.5)
	Degree	90(14.8)
	Master	38(6.3)
Mother education	Unable to read and write	55(9)
	able to read and write	73(12)

Variable	Category	Frequency (%)
	Primary	96(15.8)
	Junior	89(14.6)
	High school	146(24)
	Diploma	66(10.9)
	Degree	65(10.7)
	Masters	18(3)
Father occupation	Gove. Employee	213(35)
	Private employee	202(33.2)
	Daily laborer	30(5)
	Merchant	52(8.6)
	No occupation	38(6.3)
	Don't know	30(5)
Mother occupation	Gove. Employee	117(19.2)
	Private employee	154(25.3)
	Daily labourer	12(2)
	Merchant	10(1.6)
	House maid	255(41.9)
	Don't know	60(9.8)
Grade level	grade 9	145(23.8)
	grade10	163(26.8)
	grade11	150(24.7)
	grade12	150(24.7)
Discussion about HIV/AIDS with Parents	No	365(60)
	Yes	243(40)

4.2. Descriptive Statistics

4.2.1. HIV/AIDS Transmission Prevention Knowledge among High School Youth

As shown in table 3, majority of the respondents had adequate transmission and prevention knowledge of HIV/AIDS 80%. 94.1% of the respondents reported that, having meal with People living with HIV/AIDS did not transmit the virus and 98.4% reported that using the same toilet, did not transmit HIV/AIDS. The levels of knowledge of HIV transmissions and prevention among high school youths were computed from the scoring of seventeen questions asked regarding their understanding of HIV/AIDS transmission and prevention knowledge. These domains were whether the respondents have knowledge of HIV/AIDS transmissions and prevention about the possibility of reducing the risk of getting HIV. The four domains were related to the misconceptions about HIV: sharing food with a person who has AIDS, using the same toilet with people living with HIV/AIDS, one can get HIV from mosquito bites, and wearing cloth worn by people living with HIV/AIDS.

Table 3: HIV/AIDS Transmission and prevention knowledge among high school youth January, 2021

No	Variable	Category	
		No	**Yes**
	Through which of the following do you think HIV can be transmitted?	Frequency (%)	Frequency (%)
1	Sharing meal with people living with HIV/AIDS	572(94.1)	36(5.9)
2	Sharing the same toilet with people living with HIV/AIDS	598(98.4)	10(1.6)
3	Through Mosquito bite or other insects	474(78.0)	134(22.0)
4	Wearing clothes worn by people living with HIV/AIDS	525(86.3)	83(13.7)
5	Having sex with someone who has the AIDS virus	52(8.6)	556(91.4)
6	Contaminated needle with blood and blood products	61(10.0)	547(90.0)
7	Through Contaminated sharp instruments with blood and blood products	40(6.6)	568(93.4)
8	Through unscreened Blood transfusion	66(10.9)	542(89.1)
9	From infected mother to her fetes	94(15.5)	514(84.5)
10	From infected mother to her new born baby through breast feeding	120(19.7)	488(80.3)
	Level of knowledge of HIV/AIDS transmissions	Frequency (%)	
	Low	78(12.8)	
	High	530(87.2)	
	Total	608(100)	
	Through which of the following do you think HIV can be prevented?	NO	YES
1	Abstinence	339(55.8)	269(44.2)
2	having sex with one faithful uninfected partner	487(80.1)	121(19.9)
3	Correct and consistent use of condoms	502(82.6)	106(17.4)
4	Avoid using unsterile needles	543(89.3)	65(10.7)
5	Avoid sexual contact with HIV infected people	451(74.2)	157(25.8)
6	Avoid multiple sexual partner	541(89.0)	67(11.0)
7	Does AIDS have cure?	86(14.1)	522(85.9)
	Level of knowledge	Frequency (%)	
	Poor	80(13.2)	
	High	528(86.8)	

Misconceptions about modes of HIV transmission are as important as correct ones. For example, the belief that HIV is transmitted through mosquito bites can diminish motivation to adopt safe protective behavior during sexual encounters. In addition, misconceptions such as the belief that one can be infected by sharing a meal with someone who is HIV-positive will reinforce the stigma faced by people living with HIV (UNICEF, 2011).

As table 3 Shows, around 474(78%) of those surveyed correctly identified that HIV cannot be transmitted through “mosquito or other insect” bites. By the same token, about 98 per cent of those surveyed knew that HIV cannot be transmitted by “sharing toilet with an infected

person". Moreover, 93.4 %, 89.1%, 84.5%, 80.3% of the respondents were familiar with the fact that HIV can be transmitted by "Contaminated needle and sharp instruments with blood and blood products ,Blood transfusion ,from infected mother to fetes, from infected mother to her new born baby through breast feeding" respectively.

More than half of students in this study had heard at least one of HIV/AIDS preventive methods. Abstinence, faithfulness to one's partner and usage of condom as a means of HIV/AIDS prevention methods were responded by 339(55.8%), 487 (80.1%), 502 (82.6%) of students respectively. However, 14.1 % believed that there is a cure for HIV/AIDS.

4.2.2. Attitude towards PLWHIV/AIDS

About 533 (87.7%) of respondents reported that a person who looks healthy could transmit the AIDS virus and 514 (84.5%) of respondents believed that a person with multiple partners has more risk than a person with one partner .Regarding attitude towards people living with HIV/AIDS 354(58%).,277(45.6%),411 (67.6%), has positive attitude towards Caring for someone who have AIDS, To live with someone who have HIV/AIDS , To eat with someone who have HIV/AIDS respectively (Table 4).

Table 4: Attitude towards PLWHIV/AIDS among high school youth January, 2021

Sn	ATTITUDE QUESTIONS	Agree	Disagree	
	How much do you agree on the following points? Please indicate your response by marking this (√) sign under the given alternatives	Frequency (%)	Frequency (%)	
1	A person who looks healthy could transmit the AIDS virus	533(87.7)	75(12.3)	
2	A person with multiple partners has more risk than a person with one partner	514(84.5)	94(15.5)	
3	Sex with condom is not enjoyable	124(20.4)	484(79.6)	
4	Even if I don't protect myself there really is practically no chance I could get AIDS	181(29.8)	427(70.2)	
5	Caring for someone who have AIDS	354(58.2)	254(41.8)	
6	To live with someone who have HIV/AIDS	277(45.6)	277(45.6)	
7	To eat with someone who have HIV/AIDS	411(67.6)	197(32.4)	
	Level of attitude	Frequency (%)		
	Negative attitude	230(37.8)		
	Positive attitude	378(62.2)		

4.2.3. HIV/AIDS Prevention Practice among High School Youth

Practice towards HIV/AIDS prevention of respondents was assessed using tool adapted from previous study which focused on previous sexual practice and intention on safety and risky practices in the future. So out of the total study participants 89 (14.6%) has history of sexual intercourse. among them only 20 (22.47) used condom during intercourse.379(62.3%), 331(54.4%) 361(59.4%) of respondents reported to abstain from sex, discuss using a condom before having sex and refuse to have sex with the person if he/she won't use a condom.

Table 5: HIV/AIDS Prevention Practice among high school youth January, 2021

SN	PRACTICE QUESTIONS	Yes	No
		Frequency (%)	Frequency (%)
1	Have you had sexual intercourse in the last 12 months?	89 (14.6)	519(85.4)
	How hard would it be for you to do each of the following in the next three months?	Yes	No
2	Abstain from having sex	379(62.3)	229(37.7)
3	Discuss using a condom before having sex	331(54.4)	277(45.6)
4	Ask sexual history of a new partner	331(54.4)	277(45.6)
5	Buy condoms	328(53.9)	280(46.1)
6	Use condom	361(59.4)	247(40.6)
7	Refuse to have sex with the person if he/she won't use a condom	361(59.4)	247(40.6)
	Level of practice		
	Risky practice	254(41.8)	
	Safe practice	354(58.2)	

4.3. Bivariate Analysis: Patterns of HIV/AIDS Transmission Prevention Knowledge, Attitude towards PLWHIV/AIDS, and HIV/AIDS Prevention Practice

4.3.1 HIV/AIDS Transmission Prevention Knowledge

As shown in table 6, living condition, mothers' education, availability of radio, mothers' occupation and respondent's grade level were significantly associated with good knowledge of HIV/AIDS transmission and prevention among school youth. So the finding of this study shown that, school youth who did not live with their both parents were less likely (about 60%) to had good knowledge of HIV/AIDS transmission & prevention(about 40%; COR: 0.60; P=0.003: 95 % CI: 0.44- 0.84).

Regarding maternal education those school youth, whose mothers who achieve diploma level, were less likely to had (17%) of HIV/AIDS transmission& prevention knowledge than those

adolescents whose mothers had master's degree(about 17%; COR: 0.17; P=0.003: 95 % CI: 0.05- 0.56).

Concerning mass media exposure, those school youth who had no radio in their home were less likely to have on HIV/AIDS transmission & prevention knowledge compared to those who had radio in their home(about 33%; COR: 0.33; P=0.001: 95 % CI: 0.20- 0.55). Concerning occupation, school youth whose mothers, engaged in private job were more likely to had HIV/AIDS transmission & prevention knowledge , compared with adolescents whose Mothers were Government employee(about 3%; COR: 3.92; P=0.03: 95 % CI: 2.11- 9.5).

When we see HIV transmission & prevention knowledge the respondents whose parents engaged in private job were less likely to had HIV transmission & prevention knowledge compared with those whose parents employee of government (about 24%; COR: 0.24; P=0.003: 95 % CI: 0.095- 0.60). Concerning respondent grade level, those respondents at lower grade level were less likely to had HIV/AIDS transmission & prevention knowledge, compared with those at higher level (about 16%; COR: 0.16; P=0.001: 95 % CI: 0.06- 0.44). Other factors such as father's education were not significantly associated with Patterns of HIV/AIDS Transmission Prevention Knowledge (Table 6).

Table 6: HIV/AIDS Transmission Prevention Knowledge and its correlates on bivariate regression among High school students January, 2021

Variables	Category	HIV transmission& prevention knowledge		COR (95CI)	P-value
		Low	high		
Living condition	With both parents	35	317	1	
	Not with both parents	45	211	0.609(0.44-0.84)	0.003
Age	≤ 15	17	75	1	
	>15	63	453	1.85 (1.03-3.30)	0.03
Fathers educatio n Status	Unable to R& W	10	15	1.8 (0.74-4.69)	0.18
	Able to R& W	25	70	7.16 (1.381-14.30)	0.000
	Primary	5	35	3.55 (0.690-3.14)	0.011
	Junior	0	51	22,000 (1.14-7.87)	0.000
	High school	30	140	0.925 (0.001-11.61)	0.99
	Diploma	10	85	1,867 (0.63-5.48)	0.256

Variables	Category	HIV transmission& prevention knowledge		COR (95CI)	P-value
	Degree	8	86	4.66(1.36 -16.01)	0.184
	Masters	10	28	1	
Mothers education Status	Unable to R& W	10	45	0.85 (0.353-2.09)	0.738
	Able to R& W	15	58	2.6(0.85-8.34)	0.092
	Primary	0	93	1.61(0.58-4.41)	0.354
	Junior	10	79	1.43(0.62-3.292)	0.396
	High school	20	129	1.75(0.67-4.539)	0.246
	Diploma	8	58	0.17(0.05-0.56)	0.003
	Degree	5	60	0.99(0.000-9.99)	0.996
	Masters	10	8	1	
Fathers occupation	Gov't employee	30	183	1	
	Private employee	43	322	0.66(0.24-1.83)	0.43
	Daily labourer	5	25	0.81(0.49-1.34)	0.42
Mothers occupation	Gov't employee	18	99	1	
	Private employee	55	424	3.92(1.12-13.74)	0.03
	Daily labourer	5	7	5.50(1.68-17.94)	0.005
Grade level	grade 9	25	120	0.16 (0.06-0.44)	0.001
	grade10	23	140	0.21 (0.078-0.56)	0.002
	grade11	25	125	0.17 (0.06-0.46)	0.001
	grade12	5	145	1	
Availability of Radio	No	37	124		
	Yes	41	406	0.33 (0.20-0.55)	0.001

4.3.2 Attitude towards PLWHIV/AIDS

As shown in table 7, HIV/AIDS prevention and transmission attitude in high school youth were significantly associated with age, father's educational status, maternal educational status, grade level of respondents and having discussion about HIV/AIDS with parents. So the finding of this study showed that school youth who's age is above 15 were more likely to had safe practice than 15 and bellow 15 years of age(about 2%; COR: 1.9; P=0.005: 95 % CI: 1.217- 2.971). The finding of this study showed that, those respondents whose fathers achieved secondary educational level were more likely (about six times) to had positive attitude on HIV prevention and transmission compared to those respondents whose fathers unable to read and write(about 6%; COR: 6.22; P=0.001: 95 % CI: 2.5- 15.1). And respondents whose mothers achieved diploma educational level were less likely(58%) had

positive attitude on HIV prevention and transmission compared to those respondents whose mothers unable to read and write (about 58%; COR: 0.42; P=0.007: 95 % CI: 0.20- 0.87). Other factors such as grade level of respondents and having discussion about HIV/AIDS with parents also has significantly association.

Factors such as occupation, living condition of respondents & availability of radio at home were not significantly associated with HIV/AIDS prevention and transmission attitude (table 7)

Table 7: Attitude towards PLWHIV/AIDS and its correlates on bivariate regression among High school students January, 2021

Variables	Category	HIV prevention & transmission attitude		COR (95CI)	P-value
		Negative	Positive		
Living condition	With both parents	35	317	1	
	Not with both parents	45	211	0.838 (0.602 – 1.168)	0.29
Age	≤ 15	17	75	1	
	>15	63	453	1.9(1.216 – 2.971)	0.005
Fathers education Status	Unable to R& W	10	15		
	Able to R& W	25	70	1.189 (0.485 - 2.914)	0.706
	Primary	5	35	4.500 (1.538 – 13.165)	0.006
	Junior	0	51	2.143 (0.808 – 5.683)	0.126
	High school	30	140	6.227 (2.568 – 15.101)	0.000
	Diploma	10	85	5.625 (2.197 –14.3990	0.000
	Degree	8	86	1.633 (0.666 – 4.004)	0.284
	Masters	10	28	0.227 (1.066 – 0.781)	0.019
Mothers education Status	Unable to R& W	10	45		
	Able to R& W	15	58	0.26(0.126 -0.550)	0.000
	Primary	0	93	1.739 (0.843 -3.586)	0.134 0.101
	Junior	10	79	0.850 (0.887 -3.862)	0.187
	High school	20	129	1.557 (0.806 -3.007)	0.021
	Diploma	8	58	0.421 (0.202-0.878)	0.518
	Degree	5	60	1.286 (0.601 -2.752)	0.998
	Masters	10	8	0.000(0.000-999)	0.000
Fathers occupation	Gov't employee	30	183	1	
	Private employee	43	322	1.127 (0.795 -1.597)	0.501
	Daily labourer	5	25	0.638 (0.297 -1.375)	0.251
Mothers occupation	Gov't employee	18	99	1	
	Private employee	55	424	0.865 (0.567 -1.319)	0.500
	Daily labourer	5	7	0.755 (0.225 -2.530)	0.649
Grade level	grade 9	25	120	1.833 (1.157 -2.903)	0.010
	grade10	23	140	1.867 (1.166 -2.988)	0.009

Variables	Category	HIV prevention & transmission attitude		COR (95CI)	P-value
	grade11	25	125	1.612 (1.012 -2.567)	0.044
	grade12	5	145	1	
Availability of Radio	No	37	124		
	Yes	41	406	0.248 (0.557 – 1.163)	0.248
Discussion about HIV with family	No	17	75	1	
	Yes	63	453	1.9(1.216 – 2.971)	0.005

4.3.3 HIV/AIDS Prevention Practice

As shown in table 8, Age, living condition of respondents and occupation of parent's were significantly associated with HIV/AIDS prevention practices. So the finding of this study showed that school youth who's age is above 15 were more likely to had safe practice than 15 and bellow 15 years of age(about 33%; COR: 0.67; P=0.08: 95 % CI: 0.43- 1.1). The finding of this study showed that school youth who's both parents (Father and mother), engaged in private job were less likely to had safe practice, compared with adolescents whose (Father and mother) were Government employee(about 2%; COR: 2.41; P=0.001: 95 % CI: 0.21-0.69) and (about 62%; COR: 0.38; P=0.002: 95 % CI: 2.11- 9.5). Paternal education of the respondents' and grade level were also significantly associated with safe practice of HIV/AIDS prevention.

Other factors such as respondents, availability of radio and discussion with parents were not significantly associated with safe practice of HIV/AIDS prevention.

Table 8: HIV/AIDS Prevention Practice and its correlates on bivariate regression among High school students January, 2021

Variables	Category	HIV prevention practice		COR (95CI)	P-value
		Risky	Safe		
Living condition	With both parents	124	85	1	
	Not with both parents	228	171	0.9(0.65-1.2)	0.6
Age	≤ 15	39	170	1	
	>15	53	346	0.67(0.43-1.1)	0.08
Fathers education Status	Unable to R& W	10	15	1	
	Able to R& W	41	54	0.75(0.32-1.71)	0.49
	Primary	18	22	0.61(0.38-0.98)	0.041
	Junior	17	34	0.51(0.26-0.099)	0.049
	High school	73	97	0.79(0.42-1.51)	0.48
	Diploma	9	86	0.43(0.27-0.68)	0.001
	Degree	21	73	5.4(2.44-11.96)	0.001
	Masters	20	18	3.86(1.73-8.6)	0.001
Mothers education	Unable to R& W	20	35	1	

Variables	Category	HIV prevention practice		COR (95CI)	P-value
Status	Able to R& W	28	45	0.82(0.45-1.49)	0.52
	Primary	31	62	0.72(0.42-1.2)	0.23
	Junior	38	51	0.88(0.53-1.47)	0.63
	High school	55	94	0.512(0.3-0.8)	0.01
	Diploma	20	46	0.57(0.33-0.99)	0.04
	Degree	12	53	0.67(0.30-1.5)	0.34
	Masters	5	13	1.69(0.5-5.6)	0.38
Fathers occupation	Gov't employee	43	170	1	
	Private employee	156	209	2.41(1.4-4.1)	0.001
	Daily laborer	10	20	0.67(0.3-1.5)	0.318
Mothers occupation	Gov't employee	20	97		
	Private employee	182	297	4.49(2.11-9.5)	0.001
	Daily laborer	7	5	2.28(0.71-7.3)	0.16
Grade level	grade 9	65	80		
	grade10	54	109	0.55(0.37-0.8)	0.002
	grade11	40	110	0.86(0.57-1.2)	0.47
	grade12	50	100	1.37(0.83-2.2)	0.21
Availability of Radio	No	152	295	1	
	Yes	57	104	1.064(0.73-1.5)	0.74
Discuss about HIV with family	No	111	254	1	
	Yes	98	145	1.5(1.1-2.1)	0.01

4.4. Multivariate analysis: Determinants of HIV/AIDS Transmission and Prevention Knowledge, Attitude towards PLWHIV/AIDS, and HIV/AIDS Prevention Practice

As table 9 shows, for the knowledge component, father education, respondents' grade level, availability of radio at home and having discussion about HIV were significantly associated with HIV/AIDS transmission and prevention knowledge among high school youth. So the result showed that HIV/AIDS transmission and prevention knowledge was more likely among students with higher grade levels compared to those at lower grade levels (AOR: 15.5; P=0.001: 95 % CI: 3.036- 80.05). On the other hand, HIV/AIDS transmission and prevention knowledge was less likely among students with fathers who have achieved junior education compared to students whose fathers had tertiary educational (AOR: 0.53; P=0.005; 95% CI: 0.007-0.415); students who did not discuss about HIV/AIDS with their parents was less likely to had HIV/AIDS transmission and prevention knowledge compared to those students who discuss about it with parents (AOR: 0.15; P=0.001; 95% CI: 0.06-0.35) students who had radio at their home less likely to had HIV/AIDS transmission and prevention knowledge compared to those who had no radio at their home (AOR: 0.017; p=0.01; 95% CI: 0.03-0.09). The remaining factors such, age and living condition of respondents were not significantly

associated with knowledge of transmission and prevention of HIV/AIDS among high school youth.

As table 10 shows, Attitude towards PLWHIV/AIDS was significantly associated with father's educational status and maternal educational status. So the finding of this study showed that, those respondents whose fathers achieved secondary educational level were more likely (about 11 times) had positive attitude towards PLWHIV/AIDS compared to those respondents whose fathers unable to read and write (about 11%; AOR: 11.35; P=0.001; 95% CI: 3.60-35.74). Respondents whose mothers achieved secondary educational level were more likely had positive attitude towards PLWHIV/AIDS compared to those respondents whose fathers unable to read and write (about 76%; AOR: 0.24; P=0.007; 95% CI: 0.06-66). Other factors such as age and living condition of respondents were not significantly associated with attitude towards PLWHIV/AIDS.

As table 11 shows, Occupation of parent's, respondent's grade level and discussion about HIV/AIDS with family were significantly associated with HIV/AIDS prevention practices. So the finding of this study showed that discuss about HIV/AIDS with family significantly associated with HIV/AIDS prevention practice (about 69%; AOR: 0.31; P=0.001; 95% CI: 0.15-0.63). Regarding grade level of the respondents those in higher grade level are more likely have safe prevention practice on HIV/AIDS than those how are in lower grade level(about 88%; AOR: 0.12; P=0.000; 95% CI: 0.04-0.34). School youth who's Father engaged in private job were less likely to had safe practice, compared with adolescents whose Father were government employee (about 57%; AOR: 0.43; P=0.01; 95% CI: 21-86). Also school youth who's mother engaged in private job were less likely to had safe practice, compared with adolescents whose mother were government employee(about 94%; AOR: 0.06; P=0.000; 95% CI: 0.17-0.24). Other factors such as living condition, respondents' age and availability of radio were not significantly associated with safe practice of HIV/AIDS prevention.

Table 9: Regression coefficients of determinants of HIV/AIDS transmission and prevention knowledge January, 2021

Variables	Category	Level of HIV transmission & prevention knowledge		AOR (95 CI)	P-value
		Low	high		
Living condition	With both parents	35	317		
	Not with both parents	45	211	2.1(0.86- 5.3)	0.09

Variables	Category	Level of HIV transmission & prevention knowledge		AOR (95 CI)	P-value
Age	≤ 15	17	75	1	
	>15	63	453	1.8 (0.6-4.9)	0.21
Father education	Unable to R& W	10	45	(0.019- 0.835)	0.12
	Able to R& W	15	58	(0.036- 2.67)	0.092
	Primary	0	93	(0.007-0.415)	0.354
	Junior	10	79	(0.075- 3.33)	0.396
	High school	20	129	(0.068- 2.71)	0.246
	Diploma	8	58	(0.000-0.041)	0.003
	Degree	5	60	(000-99)	0.996
	Masters	10	8		
Grade level	grade 9	25	120	1.06 (0.37-3.05)	0.904
	grade10	23	140	15.5 (3.036- 80.05)	0.001
	grade11	25	125	14.9(1.7 -12.89)	0.001
	grade12	5	145	1	
Availability of Radio	No	37	124		
	Yes	41	406	0.017(0.003- 090)	0.001
Discussion with family	No	55	500	1	
	Yes	23	30	0.3(0.103- 0.90)	0.032

Table 10: Regression coefficients of determinants of HIV/AIDS transmission and prevention attitude January, 2021

Variables	Category	Attitude towards PLWHIV/AIDS		AOR (95CI)	P-value
		Negative	Positive		
Living condition	With both parents	35	317	1	
	Not with both parents	45	211	1.54(0.87-2.63)	0.14
Age	≤ 15	17	75		
	>15	63	453	1.54(0.73-3.12)	0.26
Fathers education Status	Unable to R& W	10	15	1	
	Able to R& W	25	70	3.779(1.269-11.251)	0.017
	Primary	5	35	5.369(1.709-16.874)	0.004
	Junior	0	51	13.092(4.055-42.274)	0.000
	High school	30	140	11.354(3.607- 35.742)	0.000
	Diploma	10	85	4.795(1.245- 18.467)	0.023
	Degree	8	86	1.353(0.294-6.216)	0.698
	Masters	10	28	7.089(2.067-24.314)	0.002
Mothers education Status	Unable to R&W	10	45		0.017
	Able to R& W	15	58	0.18(0.073-0.464)	0.000
	Primary	0	93	0.58(0.183-1.879)	0.368
	Junior	10	79	0.240(0.06-66)	0.007
	High school	20	129	0.91(0.35-2.3)	0.861
	Diploma	8	58	0.88(0.34-2.2)	0.796
	Degree	5	60	0.00(0.00-187)	0.998
	Masters	10	8	0.57(0.19-1.65)	0.303

Table 11: Regression coefficients of determinants of HIV/AIDS transmission and prevention practice January, 2021

Variables	Category	HIV prevention practice		AOR (95CI)	P-value
		Risky	Safe		
Living condition	With both parents	124	85		
	Not with both parents	228	171	1.29(0.69-2.39)	0.41
Age	≤ 15	39	170		
	>15	53	346	1.93(0.72 5.13)	0.18
Fathers occupation	Gov't employee	43	170		
	Private employee	156	209	0.43(0.214-0. 869)	0.019
	Daily labourer	10	20	0.34(0.09-1.25)	0.09
Mothers occupation	Gov't employee	20	97		
	Private employee	182	297	0.063 (0.017- 0.240	0.000
	Daily labourer	7	5		0.99
Grade level	grade 9	65	80	1	
	grade10	54	109		0.995
	grade11	40	110	0.12(0.04-0.34)	0.000
	grade12	50	100		0.968
Availability of Radio	No	152	295		
	Yes	57	104		0.74
Discuss about HIV with family	No	58	116		
	Yes	151	283	0.09(0.41-0.23)	0.000

4.5. Discussion

Knowledge, attitudes and practices (KAP) studies are very useful tools prior to any intervention to assess the extent to which individuals or communities are ready to adopt risk-free behaviors (NACCC, 2020). In this study 80% of participants had high level of knowledge about transmission and prevention of HIV/AIDS and those with poor knowledge comprised 20 % comparing this with the report of (Thanavanh et al,2007) in which 46.3 % had high levels of knowledge, and 22.4 %, poor knowledge, our participants were better informed about HIV/AIDS.

In this study out of the total study participants, 89 (14.6%) have ever been exposed to sexual intercourse, but only 20 (22.47%) of them used condom during intercourse the rest 69 (77.53%) ware not. When we see the study conducted in Ethiopia by (Ahmed et al., 2013) about 54.1% of respondents were used condom and 38.5% of them used nothing which shows our participant had poor condom use.

Since the mid-1980s, extensive awareness campaigns on HIV/AIDS have been conducted locally, nationally and globally which could have been expected to have increased the HIV/ AIDS knowledge of our participants. Similar results have been shown by (Thanavanh et al, 2007) & (Haddison et al, 2006) our respondents reported sexual education in school as one of the sources of information on HIV/ AIDS. This implies that the school was a common source of HIV and AIDS information which augers well for school based HIV/AIDS programmes.

According to the study conducted in Hawassa town Concerning respondents educational level, school youth, who were at higher grade level, were more likely to had good HIV/AIDS transmission and prevention knowledge than those at lower grade level (Semungue et.al,2015). Which is similar to the result that we found in this study (about 15%; AOR: 15.5; P=0.001: 95 % CI: 3.036- 80.05).

Those school youth who had radio at their home in this study were less likely to had knowledge of HIV/AIDS transmission and prevention compared to those who had no radio at their home (about 98%; AOR: 0.017; .p=0.01; 95% CI: 0.03-0.09). On the contrary majority of students in the study conducted in Ethiopia at 2000 those participants how had radio at their homes more likely to had knowledge of HIV/AIDS transmission and prevention compared to those who had no radio at their homes (Abebe G.et al,2000).

Attitude towards PLWHIV/AIDS was significantly associated with father's educational status and maternal educational status. So the finding of this study showed that, those respondents whose fathers achieved secondary educational level were more likely (about 11 times) had positive attitude towards PLWHIV/AIDS compared to those respondents whose fathers unable to read and write (about 11%; AOR: 11.35; P=0.001; 95% CI: 3.60-35.74). Respondents whose mothers achieved secondary educational level were more likely had positive attitude towards PLWHIV/AIDS compared to those respondents whose fathers unable to read and write (about 76%; AOR: 0.24; P=0.007; 95% CI: 0.06-66). According to the study conducted in Hawassa town concerning attitude towards PLWHIV/AIDS is high school students whose parents are educated had 66.8% positive attitude towards PLWHIV/AIDS were better than this study (Semungue et.al, 2015).

Discussion about HIV/AIDS with family was also significantly associated with HIV/AIDS prevention practice (about 69%; AOR: 0.31; P=0.001; 95% CI: 0.15-0.63). The study conducted in Hawassa town indicates little communication regarding HIV/AIDS occurred between students and their parents in contrary to this study (Semungue et.al, 2015). That

suggests the importance of involving parents and teachers with students concerning HIV/AIDS; which help them to educate themselves and the students. This finding emphasizes the importance and urgency for initiating targeted interventions for high school students and the community on creating favorable prevention practice towards HIV/AIDS in the study area.

HIV/AIDS Information Intervention and Behavior Change With regard to adolescent sexual behavior, the desired behavioral modifications as a result of information intervention programs would include the following: delayed onset of sexual initiation, decreased frequency of sexual intercourse, reduction in number of partners, increased use of condoms at every instance of sexual activity, not offering sex for money and total abstinence from sexual intercourse until marriage. (Nubed et al., 2016) Since education is a key for knowledge, the socio demographic characteristics of the respondent influence the result of knowledge of HIV/AIDS transmission and prevention because parental education is 241(26.7%) and 347(38.5%) of father and mother are without formal education (Dadi.et al, 2020).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. CONCLUSION

Information on KAP among secondary school students is important in designing intervention strategies to protect them from infection. This is very necessary and prepares them for the university when they leave home and are no longer under parental guidance, and may take wrong decisions on sex due to poor knowledge, increasing their risk of infection. This study was motivated by a desire to determine the level of understanding of youths about HIV/AIDS, identify their behaviors which could pose a risk to infection with HIV and evaluate their attitudes towards people living with the disease.

Students had a satisfactory level of knowledge on HIV/AIDS transmission and prevention. This study none-the-less highlighted some misconceptions about HIV transmission, intolerant and discriminatory attitudes towards PLWHIV, and risky sexual practices among study participants which can be corrected by reinforcing sex education curriculum as sex education in school was their main source of information on HIV/AIDS.

Sexual education in schools, should bearing forced to correct the misconceptions observed in this study and encourage safe practices and positive attitudes towards people living with HIV. Even if majority of respondents have favorable attitude towards HIVAIDS, quiet a number respondent's show inadequate knowledge towards prevention and route of transmission of HIV/AIDS. This shows that they did not extend their knowledge on prevention and control of HIV infection among students of high school age.

In addition Educational status and economic status of parents, occupation of parents, discussion about HIV/AIDS with family, grade level of the respondent's, availability of radio and some other factors are also determinants of high school student HIV/AIDS KAP. This fact and the significant association of attitude that may impact behavioral intention with the behavior of students calls the need for training students, teachers and parents and also adequately integrating the issue of HIV, gender, sexuality and preparing relevant health courses in high school curriculum to address not only the medical aspects of HIV but also the social components, related with the deadly virus HIV. So, future studies that

investigate all these possible constraints could greatly help to improve our understanding of HIV/AIDS especially among high school students.

5.2. RECOMMENDATIONS

Based on the results of the study, the following recommendations were made:

- Students should be involved in the design implementation, and evaluation of their programs and emphasis should be given on life skill training such as negotiation of safer sex, assertive communication skills, and problem solving.
- Since mass media is one of the source message in school youth the information given to them should be appropriate, consistent and complete.
- Teachers should be trained, the curriculum should pay special attention to life skill training and Anti AIDS club and peer educators should be strengthened.
- Parents should be thought, and work with to change their attitude and belief about communication with their children.
- Efforts to increase the KAP of HIV/AIDS prevention should be made from all concerned body.
- There should reinforcement of educational interventions particularly in the secondary school.

REFERENCES

1. Abera z (2003) knowledge, Attitude and behavioral on HIV/AIDS/STDs among workers in the informal sectors in Addis Abeba Ethiopia .J Health Development 17:53-62.
2. Abebe G, Fekadu A (2000) A health concerns and challenges among high school adolescents. Ethiop J Health
3. Application of the Theory of Planned Behavior to Assess the Determinants of HIV/AIDS Risk among High School Students in Hawassa City, Ethiopia 2015.
4. Bazzeew B, Ascheneke B (2012) Assessment of HIV/AIDS awareness among grade nine (9) and ten (10) students: case study of Jimma university community high school.
5. Belayneh G, Demeke A, Kora T (2005) on Determinant of Condom use among Agaro high school students using behavioral models.
6. Buseh, A. G; Glass, L. K; McElmurry, B. J; Mkhabela, M. and Sukati, N. A. 2002. Primary and preferred sources for HIV/AIDS and sexual risk behavior information among adolescents in Swaziland, Southern Africa. International Journal of Nursing Studies, Vol. 39, no. 1: 525-538.
7. Bulletin of World Health Organization. AIDS IN Africa: An epidemiological paradigm. Geneva: 2001;79;1159
8. Central Statistical Agency (CSA) [Ethiopia] and ICF. (2018)
9. Cherie A. Perceived sufficiency and usefulness of IEC materials and methods on HIV/AIDS among high school youth in Addis Ababa [Master's Thesis]. Addis Ababa University; 2000
10. Colins Kingoum Nubed and Jane-Francis Tatah Kihla Akoachere on assessment of Knowledge, attitudes and practices regarding HIV/AIDS among senior secondary school students in Fako Division, South West Region, Cameroon
11. Coyle K, Kirby D, Robin L, Banspach S, Baumler E, Glassman J. All4You! A randomized trial of an HIV, other STDs, and pregnancy prevention intervention for alternative school students. AIDS Education and Prevention 2006; 18(3):187–203.
12. Degu (2002) Knowledge and practice of condom in preventing HIV/AIDS infection among commercial sex workers in 3 small towns of North Western Ethiopia. Ethiopia. J Health Development 16:277-286.
13. DiClemente R, Wingood G, Rose E, Sales E, Lang D, Caliendo A, et al. Efficacy of sexually transmitted disease/human immunodeficiency virus sexual risk-reduction

intervention for African American adolescent females seeking sexual health services: a randomized controlled trial. 2009;

14. Ethiopian public health institute. HIV related estimates and projections for Ethiopia–2017. Addis Ababa: Ethiopian public health institute; 2017.
15. Federal Democratic Republic of Ethiopia Country Progress Report on HIV/AIDS Response, 2012
16. Focus On HIV/AIDS Communication and Evaluation. November, 26–28, 2001, Managua, Nicaragua Organized by UNFP A with the Rockefeller Foundation, UNESCO, and the Panos Institute, New York: UNFPA, 2001.
17. Gali N. and Herbert H. Foundations and Principles of Health Education. USA. Library of Congress: 19878. Knutson L. The Individual, Society and Health Behavior. Russell Sage foundation, New York, 1985
18. Gashaw A, Afework k, Feleke M, Yigzaw k, Molla G, et al. (2007) Solomon A. low prevalence of HIV infection and knowledge, Attitude and practice on HIV/ AIDS among high school students in Gondar North west Ethiopia.
19. Heneri Oberiri (2017) Difference between quantitative and qualitative research
20. Hughes J. and Ann P. Studies in family planning. Improving the fit: Adolescents' needs and future programs. New York: 1998;29;233
21. Jemmott J, Jemmott L, Fong G. Efficacy of a theory-based abstinence-only intervention over 24 months: a randomized controlled trial with young adolescents. Archives of Pediatrics & Adolescent Medicine 2010; 164(2):152–159.
22. Joint United Nations Program on HIV/AIDS (UNAIDS). UNAIDS, Data 2017. 26.
23. Kemala B, Abouds (2005) Knowledge, Attitude and practice on HIV prevention Among secondary school students in Bukoba Rural, KAGERA region, TANZANIA .
24. Liskin L, Church CA, Piotrow PT, Harris JA. AIDS Education: a Beginning. Baltimore Centre for Communication Programs, Johns Hopkins School of Public Health, W.DC, USA; 1989;
25. Lorraie.k Kiwanuka, J; Emenyonu (2007)how to use descriptive cross-sectional study
26. Modesste N., Claudette F. and Dumiso M. AIDS related knowledge, attitudes, beliefs and behavioral intentions of adolescents in Trinidad. J. Policy and applied research. 1993-1994; 3:232-275.
27. National AIDS Control Committee Central technical Group. The impact of HIV and AIDS in Cameroon through 2020.

28. Nigussie T (2006) Sexual activity of our school youth and their knowledge and attitude about STDs and HIV/AIDS in Southern Ethiopia.
29. Nibiyo H (2006) Assessment of factors affecting HIV voluntary and testing uptake among behavior university students, behavior town EPHA sponsored master's thesis extracts on HIV/AIDS in Southern Ethiopia.
30. Nwokocha, A. R. C. and Nwakoby B. A. N. 2002. Knowledge, attitude, and behavior of secondary (high) school students concerning HIV/AIDS in Enugu, Nigeria, in the year. Journal of Pediatric and Adolescent Gynecology, Vol. 15, no. 1: 93–96.
31. Ministry of Health .AIDS in Ethiopia: background, projections, impacts and interventions. Epidemiology and AIDS Department, 2002.
32. Okonta, P. I. and Haddison. 2006. Relationship between knowledge of HIV/AIDS and sexual behavior among in-school adolescents in Delta State Nigeria. Nigerian Journal of Clinical Practice, Vol. 9, no. 1: 37-39.
33. Planning, Monitoring, Evaluation and research response progress report: Malawi country report for 2010 and 2011.67.
34. Piotrow, Kincaid PT, Rimon JD: Health Communication Lessons learned from family planning, JHU, 1996.
35. Sorenson K. and Joan L. Basic nursing. Philadelphia: W.B. Saunders Company: 1986.
36. Tortolero S, Markham C, Peskin M, Shegog R, Addy R, Escobar-Chavez L, et al. It's your game: keep it real: delaying sexual behavior with an effective middle school program. Journal of Adolescent Health 2010;46 (2):169–179.
37. UNFPA and the Population Reference Bureau. 2012. The Status Report on Adolescents and Young People in Sub-Saharan Africa. New York: UNFPA.
38. UNAIDS. 2004. Report on the global HIV/AIDS epidemic. www.unaids.org
39. USAID. 2001. USAID programs: Youth and HIV/AIDS fact sheet. www.usaid.gov and
40. UNAIDS. 2002. Report on the global HIV/AIDS epidemic. 2002. www.unaids.org
41. United Nations Program on HIV/AIDS. The business response to HIV/AIDS .Geneva, 2000.
42. UNAIDS Report on the global HIV/AIDS epidemic. 2010
43. UNAIDS and World Health Organization (2003), "AIDS Epidemic Update, 2003".
44. UNICEF, 2011,Knowledge, Attitudes and practices survey Healthy Lifestyles,
45. Wang H, Wolock TM, Carter A, Nguyen G, Kyu HH, Gakidou E, et al. Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980–2015: the Global Burden of Disease Study 2015.

46. World Health Organization. The HIV/AIDS pandemic overview. 1994.
47. WHO. Reducing HIV/AIDS impact and vulnerability. Bull World Health Org 2000; 78:236.
48. World Health Organization. Population repots. USA: September 1996
49. Yaleyeh N, Bête Mariam G, Mebratu B (2003) Knowledge, Attitude and Practice study on HIV/AIDS in Gambela town, Western Ethiopia. J .Health Dev. 17.
50. Ybarra, M. L; Kiwanuka, J; Emenyonu, N. and Bangsberg, D.R. 2006. Internet use among Ugandan adolescents: implications for HIV intervention. PLoS Medicine, Vol.3, no. 11: 2104-2112.
51. YitaylSh, Agersaw A, Amanuel G (2009) Assessment of knowledge, attitude and risk behaviors towards HIV/AIDS and STI among preparatory school students of Gondar town Northwest Ethiopia.
52. Zewdie D., Gizaw G., khodakevich L, et al. Development and Management of the AIDS Control Program in Ethiopia. Ethiop. J. Health Dev. 1990; 2:87-96.

APPENDICES

Appendix I: Information sheet and consent form

Dear Respondent,

My name is ----------from Addis Ababa University, pursuing a Master of Science in population studies I am undertaking a study on Perceived Sufficiency and Usefulness of IEC Materials and Methods on HIV/AIDS among High School Students in Yeka Sub City, Addis Ababa, Ethiopia

Procedure to be followed

I and my research assistants would like to ask you some questions about yourself and Your perception on usefulness of ICE materials and methods on HIV among High school students. Though your views are very important, you have the right to refuse participation in the study. You will get the same services as other students' whether you agree to join the study or not. The questionnaire will take about 1 hour and your cooperation is highly appreciated.

Possible benefits and risks

The benefits from this study may not be directly anticipated but the findings may be useful to the relevant stakeholder in initiating interventions geared toward improving students'knowledge, attitude and practice of ICE materials and methods towards prevention of HIV/AIDS. There are no foreseen risks associated with the study

Care and protection of the study participants

The research procedure will adequately be explained to the participants. This will assure them that no risk is associated with the study. They will also be informed of their right to withdraw from the study at any time without penalty.

Confidentiality

Whatever information you provide will be treated with utmost confidentiality and will not be used for any other purpose other than the purpose of the study.

If you have any questions you may contact;

Tel +251913649446

Email helentsegaye46@gmail.com

Respondent's statement

The above information regarding my participation in the study is clear to me and I voluntarily agree to participate.

Respondent Signature ----------

Date: ----------

Appendix II-Questionnaires

PART ONE: Back ground Characteristics

The following questions are about your background characteristics. Please indicate your response by circling the number of your choice or by writing your response in the space provided accordingly

No	Questions/variables	Coding categories	Skip option
101	Sex of the respondent	1. Male 2. Female	
102	Age in completed years	_____	
103	What religion are you following currently?	1.orthodox 2.protestant 3. catholic4. Muslim 5 .other (specify)	
104	To which ethnic group do you belong?	1.Amhara 2. Oromo 3. Tigre 4. Others (specify) ----------	
105	With whom do you live -	1. with father and mother. 2. with my mother only. 3. with my father only 4. With grandfather/mother 5.With relatives 6. With friends 7. Alone 8. Other (specify) ----------	
106	Fathers educational status	1. Illiterate 2. Read and write 3. 1-6 grade 4.7-8 grade 5. 9-12 grade 6. Diploma 7.first degree 8.masters	
107	Mothers educational status	1. Illiterate 2. Read and write 3. 1-6 grade 4. 7-8 grade 5. 9-12 grade 6.Diploma 7.first degree 8.masters	
108	What is your father's occupation	1. Daily laborer 2. Civil servant 3.Private employee 4. He doesn't work 5. Deceased 6. Don't know 7. Others (specify)----------	
109	What is your mother's occupation?	1. Daily laborer 2. Civil servant 3.Private employee 4. She doesn't work 5. Deceased 6. Don't know 7. Others (specify)----------	

No	Questions/variables	Coding categories	Skip option
110	How do you perceive your family economic status?	1. Poor 2. Moderate 3. Rich 4. Don't know 5. No response	
111	Which grade are you currently in?	1. Grade 9 2. Grade 10. 3. Grade 11 4.Grade 12	
112	Do you take religious subjects in your school?	1. Yes 2. No 3.Don'tknow 4. No response	
113	Is there a radio in your household?	1.Yes 2 .No 3. Don't know 4. No response	
114	If your answer is 'no' where doing you listen to the radio?	1. Neighbors 2. I don't listen 3. Others (specify) ----------	
115	Is there a television in your household?	1. Yes 2. No 3. Don't know 4. No response	
116	If your answer is 'no' where doing you watch TV?	1. Neighbors 2. I don't watch 3. Others (specify) ----------	

PART TWO: SEXUAL HISTORY

No	Questions/variables	Coding categories	Skip option
201	Have you ever had sexual intercourse?	1. Yes 2. No	
202	If yes to Q.201 At what age did you first have sexual Intercourse?	_____	
203	If yes to Q.201 What made you have first sexual intercourse?	1. I had personal desire 2. I was persuaded by friends 3. I was forced 4. I expected a gift from partner 5. Others (specify) -----	

PART THREE: COMMUNICATION

The following questions are concerned with communication about HIV/AIDS. Please respond to the questions either by circling the number of your choice or by writing the answer in the space provided accordingly.

3.1 SOURCES OF INFORMATION ABOUT HIV/AIDS

No	**Questions/variables**	**Coding categories**	**Skip option**
301	Have you ever heard about HIV/ AIDS?	1. Yes 2. NO 3. Don't know 4.. No response	

No	Questions/variables	Coding categories	Skip option
302	When did you hear about HIV/AIDS first?	1. Since one year 2. Since two years 3. Since three years 4.Since four years 5. Since five years 6. Before five years 7. Don't know 8. No response	
303	Think about the first time you heard about people being sick from AIDS. From which source did you get this information?	1. Family 2. Friend 3. Neighbors 4.School 5.Church / Mosque 6. Health personnel 7.Television 8 .Radio 9.Poster 10. Pamphlets 11. Newspaper 12. Others (specify) ----------	
304	Thinking about all the different things you've learned about HIV/AIDS in the past 12 months, who are your sources of information at your home since the last 12 months? (Circle all that apply)	1. Fathers 2. Mother 3. Brother 4.Sister 5.Grandmother/father 6.Radio 7.Television 8.Newspaper 9. Others (specify) ----------	
305	Thinking about all the different things you've learned about HIV/AIDS in the past 12 months, who are your sources of information at school since the last 12 months? (Circle all that apply)	1. Teachers 2. Friends 3. Anti AIDS Clubs 4. Peer educators 5. No one 6.others specify	
306	Thinking about all the different things you've learned about HIV/AIDS in the past 12 months, who are your sources of	1.Friends 2.Elderly people 3.Community leaders 4.Religious leaders 5. Neighbors 6.Health professionals 7.No one 8. Others (specify) ----------	
307	Have you ever discussed with your parents about HIV/AIDS?	1. Yes 2. Don't know---please skip to Q 310 3. No response	
308	If yes, to Q 307 who initiated the discussion?	1. My parents 2. Myself 3. Others (specify) ----------	
309	During the last four weeks how often have you discussed with your parents about HIV/AIDS?	1. At least once a week 2. At least once in two weeks 3.At least once in three weeks 4.At least once in four weeks 5.Don't know 6. No response	
310	Have you ever heard about HIV / AIDS on the radio?	1. Yes 2. No	

No	Questions/variables	Coding categories	Skip option
311	During the last four weeks how often have you listened to the radio about HIV/AIDS?	1. At least once a week 2. At least once in two weeks 3.At least once in three weeks 4. At least once in four weeks 5. Don't know 6. No response	
312	Have you ever heard and watched about HIV / AIDS on the television?	1. Yes 2. No	
313	During the last four weeks how often have you watched to the television about HIV / AIDS?	1. At least once a week 2. At least once in two weeks 3.At least once in three weeks 4. At least once in four weeks 5. Don't know 6. No response	
314	During the past four weeks how often have you read a newspaper?	1. At least once a week 2. At least once in two weeks 3.At least once in three weeks 4. At least once in four weeks 5. Don't know 6. No response	
315	Have you ever seen posters about HIV / AIDS?	1. Yes 2. No	
316	Who does you thinks the poster designers had in mind when they prepared the posters you have seen?	1. Someone exactly like me 2. Someone a little bit like me 3.Someone much different from me 4. Unsure	
317	During the last four weeks how often have you got chance to see posters about HIV/AIDS?	1. At least once a week 2. At least once in two weeks 3.At least once in three weeks 4. At least once in four weeks 5. Don't know 6. No response	
318	Have you ever seen leaflets about HIV/AIDS?	1. Yes 2. No -- please skip to 321 3. No response	
319	If yes, from where were they delivered?	1. Health institutions 2. Anti AIDS Clubs 3. Schools 4. Others (specify)--------	
320	During the last four weeks how frequently do you get leaflets about HIV/AIDS?	1. Every day 2. At least once a week 3. At least once in two weeks 4. At least once in three weeks 5. At least once in four weeks 6. Don't know 7. No response	
321	Is there Anti AIDS Clubs in your school?	1. Yes 2. No-- please skip to 325 3. No response	If No please skip to 325
322	What phrase best describes the messages delivered by your schools Anti AIDS Clubs?	1. Always clear and consistent 2. Some messages are clear and some are hard to understand 3. Most messages are hard to understand 4. Other (explain)----------	

No	Questions/variables	Coding categories	Skip option
		5. Unsure	
323	Are you member of the ani AIDS club?	1. yes 2. No 3.Do not know 4. No response	
324	If your answer is no, why not?	_____	
325	Are HIV/AIDS topics included in your curriculum?	1.Yes 3. No 2. No response	If NO please skip to Q 329
326	If yes what type of teaching method (s) are being employed?)	1. Lecture 2. Discussion 3. Both 4. Others (specify)----------	
327	During your lesson about HIV/AIDS in class were there opportunities for you to learn about how to use condoms?	1. Yes 2. No 3. Don't know 4. No response	
328	During your lesson about HIV/AIDS in class were there opportunities for you to learn skills about how to:		
328A	make self-decisions about sex	1. Yes 2. No 3. Don't know 4. No response	
328B	express your feeling openly to others	1. Yes 2. No 3. Don't know 4. No response	
329C	negotiate safer sex	1. Yes 2. No 3. Don't know 4. No response	
329	Are there peer educators in your school?	1. Yes 2. No - please skip to Q3.2.1 3. Don't know 4. No response	If No - please skip to Q331
330	Did you feel you could trust the peer educator to keep your conversation private?	1. Yes 2. No 3. Don't know 4. No response	

3.2 MESSAGES ABOUT HIV/AIDS

No	Questions/variables	Coding categories	Skip option
331	In your opinion, of all the information you got about HIV/AIDS, which source (s) of information had the ability to teach you about HIV/AIDS? (Circle all that apply)	1. Family 2. Friends 3. Neighbors 4. School 5. Church / Mosque 6. Health personnel 7. Television 8. Radio 9. Poster 10. Pamphlets 11. News paper 12 social media	

No	Questions/variables	Coding categories	Skip option
		13. None 14. Others (specify)----------	
332	Of all the information you got about HIV/AIDS which source (s) of information messages was simple and understandable to you? (**Circle all that apply**).	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ----------	
333	Of all the information you got about HIV/AIDS which source (s) of information transmit the messages which you actually need? (Circle all that apply)?	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify)----------	
334	Of all the information you got about HIV/AIDS from which sources did you get timely (up to date) information? (Circle all that apply)	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ----------	
335	Of all the information you got about HIV/AIDS which sources of information message was consistently delivered to you? (Circle all that apply)	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ----------	
336	Of all the information you got about HIV/AIDS which source of information message was(were) most helpful in responding to the challenges you routinely face? (Circle all that apply)	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque	

No	Questions/variables	Coding categories	Skip option
		6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ---	
337	Of all the information sources about HIV/AIDS which source message was(were) accessible to you in time and place? (Circle all that apply)	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ----------	
338	From which source of information were you interested to get messages about HIV/AIDS? Please write the number of your response in front of the given alternatives for those sources who stood in the rank 1-3.	1. Family 2. Friend 3. Neighbors 4.School 5. Church / Mosque 6. Health personnel 7.Television 8 .Radio 9. Poster 10. Pamphlets 11 social media 12. Newspaper 13. Others (specify) ----------	
339	How much, the information and education you got about HIV/AIDS contained the messages you expected?	1. Very high 2. High 3. moderate 4. Fair 5. Not at all 6.Don't know 7. No response	
340	How much sufficient was the information and education you obtained about HIV/AIDS when it is compared with:		
340A	The knowledge you want to get about the disease	1.More than sufficient 2.Highlysufficient 3.Sufficient 4. Fairly sufficient 5. Insufficient 6. Don't know 7. No response	
340B	The attitude you want to develop towards the disease	1.More than sufficient 2.Highlysufficient 3.Sufficient 4. Fairly sufficient 5. Insufficient 6. Don't know 7. No response	
340C	The practice you want to acquire about the disease	1.More than sufficient 2.Highlysufficient	

No	Questions/variables	Coding categories	Skip option
		3.Sufficient 4. Fairly sufficient 5. Insufficient 6. Don't' know 7. No response	

PART FOUR: PERCEPTION OF KNOWLEDGE, ATTITUDE, PRACTICE AND BEHAVIOR

The following questions are concerned about the effects of IEC messages you received about HIV/AIDS on your knowledge, attitude, practice and behavior. Please respond by circling the number or filling the space provided or by writing the number of their rank in front of the given alternatives.

No	Questions/variables	Coding categories			Skip option
401	In the past 12 months, have you learned anything new about HIV/AIDS?	1. Yes 2. No 3. Do not know 4. No response			
402	If yes, what knowledge did you get? (Circle all that apply)	1. Causes of HIV/AIDS 2. Transmission mechanisms of HIV/AIDS 3. Prevention method of HIV/AIDS 4. Ways to assess my own risk 5. Others (specify)----------			
403	Which source (s) of information most helped you to increase your knowledge? Please write the number of your response in front of the given alternatives, in the order of importance to increase your knowledge about HIV/AIDS.	1. Parents------ 2. Peers ------- 3. Religious leaders----- 4. Teachers----- 5.Health professionals------ 6.Anti AIDS Clubs----- 7. Television----- 8 Radio----- 9. Posters----- 10. Leaflets----- 11. News paper----- 12. Others----------			
404	Through which of the following do you think HIV can be transmitted? Please indicate your response by marking this (a) under the given alternatives	YES	NO	Do not know	No response
	Shaking hands with people living with HIV/AIDS				
	Eating together with people living with HIV/AIDS				
	Using the same toilet with people living with HIV/AIDS				
	Having sex with someone who has the AIDS Virus				

	Mosquito bite				
	Contaminated needle and sharp instruments with blood and blood products				
	Contaminated needle and sharp instruments with blood and blood products				
	Blood transfusion				
	From infected mother to fetes				
	From infected mother to her new born baby through breast feeding				
	Wearing clothes worn by people living with HIV/AIDS				
	Others----------				
405	4.5 How can HIV/AIDS be prevented? Please indicate your response by marking this (a) sign under the given alternatives				
	Abstinence				
	Correct and consistent use of condoms				
	Avoid using unsterile needles				
	Avoid any contact with HIV infected people				
	Having good nutritional status				
	Avoid mosquito bites				
	Having sex with only one uninfected faithful partner				
	Using screened blood				
406	Does AIDS have cure?	1.Yes 2. No 3. Don't know 4. No response			
407	Is there a proven vaccine to the public that protects a person from getting HIV?	1.Yes 2. No 3. Don't know 4. No response			
408	Did the information you received about HIV/AIDS change your previous attitude?	1. Yes 2. No 3. Don't know 4. No response			
409	In the past 12 months, have you experienced any changes in the following?	Yes	No	Unsure	No response
	1. Belief about personal vulnerability with HIV/AIDS				
	2. Commitment to abstain from sex				
	3. Commitment to delay sex				
	4. Commitment to use condom correctly				
	5. Confidence to discuss about sexuality				
	6. Susceptibility of HIV/AIDS				
	7. Commitment to decrease number of sexual partners				
	8. Commitment to have only one faithful partner				

	9. Positive feeling towards People Living						
	10. Others (Specify)----------						
410	Referring the issue for which you reported "yes" in 409, which source (s) of information most helped you to change your previous attitude? Please write the number of your response in front of the given alternatives in the order of usefulness to change your previous attitude	1. Parents 2. Peers 3. Religious leaders 4. Teachers 5.Health professionals 6.Anti AIDS Clubs 7. Television 8 Radio 9. Posters 10. Leaflets 11. News paper 12. Others------					
411	How much do you agree on the following points? Please indicate your response by marking this (a) sign under the given alternatives	Agree	Not sure	Disagree			
	a. A person who looks healthy could transmit the AIDS virus						
	b. A person with multiple partners has more risk than a person with one partner						
	c. Sex with condom is not enjoyable						
	d. Even if I don't protect myself there really is practically no chance I could get AIDS						
412	How comfortable are you to do each of the following? Please indicate your response by marking this (a) sign under the given alternatives	Comfortable	Neutral Uncomfortable	Do not know	No response		
	a. Caring for someone who have AIDS						
	b. To live with someone who have HIV/AIDS						
	c. To eat with someone who have HIV/AIDS						
413	How hard would it be for you to do each of the following in the next three months?	Very hard	fairly hard	Fairly easy	Very easy	No response	
	a. Abstain from sex						
	b. Ask sexual history of a new partner						
	c. Buy condoms						
	d. Discuss using a condom before having sex						
	e. Use a condom						

	f. Refuse to have sex with the person if he/she won't use a condom					
	g. If condom is not available to stop sexual activity					
414	Did the information you obtained about HIV/AIDS improve your practice?	1. Yes 2. No 3. Don't know 4. No response				
415	If yes, what are the practices you improved? (Circle all that apply)	1. Abstain from sex 2. Correctly and consistently use condoms 3. Avoiding injection by unsterile instruments 4. Avoiding casual contacts with people with HIV/AIDS 5. To decrease number of sexual partners 6. To stick to one faithful partner 7. Others (specify) ----------				
416	Which source (s) of information most helped you to change your previous practice? Please write the number of your response in front of the given alternatives in the order of usefulness in changing your practice.	1. Parents----- 2. Peers----- 3. Religious leaders----- 4. Teachers----- 5.Health professionals----- 6.Anti AIDS Clubs------ 7. Television----- 8 Radio----- 9. Posters----- 10. Leaflets----- 11. News paper------ 12. Others----------				
417	Have you had sexual intercourse in the last 12 months?	1. Yes 2. No 3. Don't know 4. No response				
418	How many sexual partners did you have in the last 12 months?	1. Only one partner 2. Two to five partners 3. More than five partners				
419	How many of them were regular partners (someone with whom you have been having sex with for at least 3 months).					
420	How many were non-regular partners (someone with whom you have been having sex for less than 3 months					
421	How many were commercial (partners with whom you had sex in exchange for money).					
422	In the past 12 months of sexual	1. Yes				

	intercourse did you and your partner (s) use a condom?	2. No—please skip to Q 4.24 3. Don't know 4. No response	
423	With what frequency did you and your partners use a condom during the past 12 months?	1. Every time 2. Almost every time 3. Sometimes	
424	Why didn't you and your partner use a condom that time? (circle all that apply).	1. Not available 2. Too expensive. 3. Partner objected 4. Don't like those 5. Used other contraceptive 4. Never used6. Have trust on partner 7. Didn't have reason to use 8. Didn't think of it 9. Others----------	

PART FIVE: PREFERENCES OF SOURCES OF INFORMATION, MESSAGES AND CHANNEL

No	Questions/variables	Coding categories	Skip option
501	By whom do you want to be taughtabout HIV/AIDS?	1. Parents 2. Peers 3. Religious leaders 4. School subjects 5. Anti AIDS Clubs 6. Health professionals 7. Television 8. Radio 9. Posters 10. Leaflets 11. News paper 12. People living with HIV/AIDS 13. Poem 14. Others------- ----------	
502	How do you think information? Related to HIV/AIDS be communicated to you.	1. Song 2. Drama 3. News 4. Speeches 5. Discussion 6. Others----------	
503	List three things you would still like to learn about HIV/AIDS	_____ _____	
504	If you want to be taught by radio or television which day and time is convenient	_____	

□□□ **I:** □□□□ □□□□ □□ □□□□□□ □□
□□ □□□ □□
□□ □□□ □□□ □□□ □□□□ □□□ □□□□□□ □□□□ □□□ □□□□□□ □□□ □□□□ □□□ □□□ □□□□ □□□ □□□□□□ □□□□□□ □□□□□□ □□□□ □□ □□ □ / □□□□ □□□□□□ □□□□ □□□□ □□□□ □□□□ □□□□□ □□□□ (Determinants of HIV/AIDS Knowledge, Attitude and Practice (KAP) among High School Students in Yeka Sub City, Addis Ababa, Ethiopia) □□ □□□□□ □□□ □□□□□ □□□□□ □□□□ □□□□□ □□□□ □□□ □□ □□□ □□□ □□□□ □□□□□ □□□ □□□□□ □□□ □□ □□□□□□ □□□□□□□□
□□□□ □□□□ □□□ □□□□

□□ □□ □□□□□ □□□□ □□□□□ □□□□□ □□□□□□ □□□□ □□□□□□□ □□□□□ □□□ □ / □□ □□□□□ □□□□ □□ □□□□ □□□□□ □□□□□ □□ □□□□ □□□.□□.□. □□ □□□ □□□□ □□□□□□□□ □□□ □□□□□ □□□□ □□□□ □□□ □□□□ □□□ □□□□□ □□□ □□□□ □□ □□□□ □□□□□□ □□□ □□□□□□□ □□□ □□□ □□□□□ □□□□□ □□□□□□□□ □□□□□ □□□□ 1 □□□ □□□ □□□□□ □□□ □□□□□ □□□ □□□□□□

□□□ □□□□ □□□□ □□ □□□□

□□□ □□□ □□□□ □□□□ □□□□□ □□□□ □□□ □□ □□□□ □□□□□□□ □□□□ □ □□□□□□ □□□□ □□ □□□□□□ / □□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□-□□ □□□□□□□ □□□□□□□ □□□□□ □□□ □□□ □□□ □□□□ □□ □□□□ □□ □□□□□ □□□□ □□□□□ □□□□□

□□□□ □□□□□□ □□□□□□ □□ □□□

□□□□□ □□□□ □□□□□□□ □□□ □□□ □□□□□ □□ □□□□ □□ □□□ □□□□ □□□□□□ □□□ □□□ □□□□□ □□□□□ □□ □□□ □□□□□□ □□ □□□□ □□□□□ □□□□□ □□□ □□□□□□□□□

□□□□□□□

□□□□□ □□□□□ □□□ □□□□□ □□□□ □□□□ □□□ □□□□ □□□ □□□□ □□□□□ □□□ □□□□□□ □□□□□□ □□□□□ □□□□□□□□□ □□□ □□□□□ □□□ □□□□ □□□□ □□□□ □□□□□□ □□□□ □□□□ □□□□ □□□ □□□□□□ □□□□ □□□□□ □□□□□□□□□

□□□□□ □□□□□ □□□□ □□□ □□□ □□□-
□□□□ +251913649446
helentsegaye46@gmail.com □□□□□ □□□□□ □□□□
□□□□□□ □□□□
□□□□ □□□ □□□□ □□□□ □□□□□□ □□□ □□□ □□□ □□□ □□□ □□ □□ □□ □□□□□ □□□□□□□

□□□□□□ ----------
□□□□□□ ----------

□□□ **II-**□□□□□□

□□□ □□□□**-** □□□□□□□ □□□□□□(Back ground Characteristics)

□□□□□□□ □□□□□□ □□ □□□□□□□□ □□□□□□ □□□□ □□ □□□□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□□□□□ □□□□□□ □□ □□ □□□□□ □□□□□□ □□□□□□□□□

ተ.ቁ	□□□□□□	□□□□ □□□□□	□□□□ □□□□□
101	□□□□□□ □□	1. □□□□ 2. □□	
102	□□□□	_____	
103	□□□□□ □□ □□□□□□□ □□□□□□	1.□□□□□□□ 2. □□□□□□□□ 3. □□□□□ 4. □□□□□ 5. □□ (□□□□□)	
104	□□□□□□ □□□□□□ □□□□ □□□□?	1.□□□□ 2. □□□□ 3. □□□□ 4. □□□□ 5.□□□□ (□□□□□) ----------	
105	□□□□ □□ □□□□□□□	1. □□□□□ □□ □□□□□□□ 2. □□□□□ □□ □□ 3. □□□□□ □□ □□ 4. □□□□ □□□□ □□ / □□□□□ □□□□ □□ 5. □□□□□□ □□ 6. □□□□□□ □□ 7. □□□□□ 8. □□ □□ (□□□□□) ----------	
106	□□□□□□ □□□□□□□ □□□□	1. □□□□□□ □□□□ □□□□□□ 2. □□□□□□ □□□□ 3. 1-6 □□□ 4.7-8 □□□ 5. 9-12 □□□ 6. □□□□□ 7. □□□□□□□ □□□□ 8. □□□□□□ □□ □□□□ □□□□	
107	□□□□□ □□□□□□□ □□□□	1. □□□□□□ □□□□ □□□□□□ 2. □□□□□□ □□□□ 3. 1-6 □□□ 4.7-8 □□□ 5. 9-12 □□□ 6. □□□□□ 7. □□□□□□□ □□□□ 8. □□□□□□ □□ □□□□ □□□□	
108	□□□□□□ □□ □□□□□□?	1. □□□□ □□□□□ 2. □□□□□□□ □□□□□ 3.□□□□ □□□□□	

		(□□□□□□□□□ □□□□ □□□□ □□□□ □□□□□) 4. □□ □□□□□ 5. □□□□ □□□□□□ 6. □□□□□□ 7. □□ □□ (□□□□□) ----------	
109	□□□□□ □□ □□□□□□?	1. □□□□ □□□□□ 2. □□□□□□□ □□□□□ 3.□□□□ □□□□□ 4. □□ □□□□□ 5. (□□□□□□□□□□ □□□□ □□□□ □□□□ □□□□□) 6. □□□□□□ 7. □□ □□ (□□□□□) ----------	
110	□□□□□□□□ □□□□□□□ □□□□ □□□□□ □□□□□□□?	1.□□ 2. □□□□□□ 3. □□□□□ 4. □□□□□□ 5. □□□□ □□□□	
111	□□□□□ □□□□ □□□□□□ □□□□ □□□□ □□□□?	1. 9□ □□□□ 2.10□ □□□□ 3.11□ □□□□ 4.12□ □□□□	
112	□□□□□□□ □□□□ □□□□□□□ □□□□□□□□ □□□□□□?	1. □□ 2. □□□□ 3. □□□□ □□□□	
113	□□□□□□□ □□□□ □□□□ □□?	1. □□ 2. □□□□ 3. □□□□ □□□□	
114	□□□□□ ‹□□› □□□□ □□□□ □□□□□□□□ □□ □□?	1. □□□□□ 2. □□ □□□□□□□ 3. □□ □□ (□□□□□) ----------	
115	□□□□□ □□□□ □□□□□□ □□?	1. □□ 2. □□□□ 3. □□□□ □□□□	
116	□□□□□ ‹□□› □□□□ □□ □□ □□□□□□ □□□□□□?	1. □□□□□□ 2. □□□□□ 3. □□□□ (□□□□□) ----------	

□□□□ □□□□ -□□□□□ □□ □□□□□□ □□□□□ □□□□

ተ.ቁ	**ጥያቄዎች**	□□□□ □□□□□	□□□□ □□□□□
201	□□□□□ □□ □□□□□□ □□□□□ □□□□□?	1. □□ 2. □□□□ 3. □□□□ □□□□□ □□□□□□□	
202	□□ □□□□ □207 □□□□□ □□□□□□□ □□□□ □□□□□□ □□□□□□ □□□□□□ □□□□ □□ □□□□?	_____	
203	□201□□□□ □□ □□□□ □□□□□□□ □□ □□□□□ □□ □□□□□□ □□□□□□ □□□□ □□□□□□ □□□□?	1. □□□□ □□□□□ □□□□□ 2. □□□□□ □□□□□□□	

		3. □□□□□ 4. □□□□□□□□□ □□ □□□□ □□□□ □□ □□□□ □□□□ 5. □□ □□ □□□□□	

□□□□ □□□□- □□ □□ □□ □ □□□□ □□□□

□□□□□□□ □□□□□□ □□ □□.□□.□ / □□□□ □□□□ □□ □□□□□□ □□□□ □□ □□□□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□□□ □□□□ □□□□□□ □□□□ □□□□□ □□□□□ □□□□□ □□□□□□□ □□□□ □□□□ □□

3.1 □□ □□ □□ □ **/** □□□□ □□□□ □□□□□ □□□□□

□.□	**ጥያቄዎች**	□□□ □□□□□	□□□ □□□□□
301	□□ □□ □□ □ / □□□□ □□□□□ □□□□□?	1. □□ 2. □□□□ 3.□□□□ □□□□	
302	□□□□□ □.301 □□□□ □□ □□□□ □□□□□□ □□ □□ □□ □ / □□□□ □□ □□?	1. □□□□□ □□□□ □□□□ 2. □□□□□ □□□□ □□□□ 3. □□□□□ □□□□ □□□□ 4. □□□□□ □□□□ □□□□ 5. □□□□□□ □□□□ □□□□ 6. □□□□□□ □□□□ □□□□ 7. □□□□□□ 8. □□□□ □□□□	
303	□□□□□ □.301 □□□□ □□ □□□□ □□□□□ □□□□□□□□□□ □□□□□□□ □□ □□□□□□□□ □□□□ □□ □□□□□□ □□□□ □□ □□□□ □□□□ □□□□□?	1. □□□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□□ □□ 5. □□□□ - □□□□□□ / □□□□□ 6. □□□□ □□□□□□□ 7. □□□□□□□ 8. □□□□□ 9. □□□□□□ 10. □□□□□□□/□□□□ □□□□ 11. □□□□□ 12. □□ □□ (□□□□□) ----------	
304	□□□□□ □.301 □□□□ □□ □□□□ □□□□□ 12 □□□□ □□ □□ □□ □ / □□□□ □□□□□□□□□□ □□□□□□ □□□□□ □□ □□□□□ □□□□□ 12 □□□□ □□□□ □□□□□ □□□□ □□□□□ □□□□□□ □□ □□□□? (□□□□□□□□□□ □□ □□ □□□□)	1. □□□□ 2. □□□□ 3. □□□□□ 4. □□□□ 5. □□ □□□□ / □□□□ □□□□ 6. □□□□ 7. □□□□□□ 8. □□□□ 9. □□ □□ (□□□□□) ----------	

305	□□□□ □.301 □□□ □□ □□□ □□□□ 12 □□□ □□ □□ □□ □ / □□□ □□□□□□□□ □□□□ □□□□□ □□□□ □□□□ □□□□ 12 □□□ □□□ □□□□□□ □□ □□□ □□□□ □□□□□ □□□□ □□□? (□□□□□□□□ □□ □□ □□□)	1. □□□□□□□ 2. □□□□ 3. □□□ □□□ □□□ 4. □□□□□ 5. □□□□ 6. □□ □□ □□□□	
306	□□□□ □.301 □□□ □□ □□□ □□□□ 12 □□□ □□□ □□ □□ □□ □ / □□□ □□□□□□ □□□□□ □□□□ □□□ □□ □□□□□□ □□□□□ □□□□ □□□ □□□□□ □□□□□□ □□□□ □□□□□□□	1. □□□□□ 2. □□□□□ 3.□□□□□□□ □□□□ 4.□□□□□□ □□□□ 5. □□□□□□□ 6. □□□ □□□□□□ 7. □□□□ 8. □□ □□ (□□□□) ----------	
307	□□ □□ □□ □ / □□□ □□□□□□ □□ □□□□□□ □□□□?	1. □□ 2. □□□□□ □□□ □□□□□ □□□ □□□□ □□ □□□ 310 □□□ 3. □□□ □□□	
308	□□□□ □□ □□□ □ □□□□ 307 □□□□□ □□□□□□ □□□?	1. □□□□ 2. □□ 3. □□ □□ (□□□□) ----------	
309	□□□□□ □□□ □□□□□ □□□ □□ □□ □□ □ / □□□ □□□□□□ □□ □□ □□□ □□ □□□□?	1. □□□□ □□□□□ □□□ □□ 2. □□□□ □□□□ □□□ □□□□ □□□ □□ 3. □□□□ □□□□□ □□□ □□□□ □□□ □□ 4. □□□□ □□□□□ □□□ □□□□ □□□ □□ 5. □□□□□□□□ 6. □□□ □□□	
310	□□□□ □□ □□ □□ □ / □□□ □□□□ □□□□?	1. □□ 2. □□□	
311	□□□□ □.310 □□□ □□ □□□ □□□□□ □□□ □□□□□ □□□ □□ □□ □□ □ /	1. □□□□ □□□□□ □□□ □□ 2. □□□□ □□□□ □□□ □□□□ □□□ □□	

	□□□□ □□□□□□ □□ □□□□ □□ □□□□□□□□?	3. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 4. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 5. □□□□□□□□□ 6. □□□□ □□□□	
312	□□ □□ □□ □ / □□□□ □□□□□□□ □□□□□ □□□□□?	1. □□ 2. □□□□	
313	□□□□□ □.312 □□□□ □□ □□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□ □□ □□ □ / □□□□ □□□□□□□ □□ □□□□ □□ □□□□□□ □□□□?	1. □□□□□ □□□□□□ □□□□ □□ 2. □□□□□ □□□□□ □□□□ □□□□□ □□□□ □□ 3. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 4. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 5. □□□□□□ 6. □□□□ □□□□	
314	□□□□□ □□□□ □□□□□□ □□□□ □□ □□□□ □□□□□□□?	1. □□□□□ □□□□□□ □□□□ □□ 2. □□□□□ □□□□□ □□□□ □□□□□ □□□□ □□ 3. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 4. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 5. □□□□□□ □□□□□□ 6. □□□□ □□□□	
315	□□ □□ □□ □ / □□□□ □□□□□□ □□□□□ □□□□□□?	1. □□ 2. □□□□	
316	□□□□□ □.315 □□□□ □□ □□□□ □□□□□ □□□□ □□□□□□ □□□□□ □□□□□□ □□□□□□ □□□□□□□□□ □□□□ □□ □□□□□ □□□□□□□□?	1. □□□□ □□ □□ □□□□□ □□ □□ 2. □□□□ □□ □□□□ □□□□□ □□□□□□ 3. □□□□ □□□□ □□□□□ □□ 4. □□□□□□ □□□□□□□	
317	□□□□□ □.315 □□□□ □□ □□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□ □□ □□ □ / □□□□ □□□□□□□ □□□□□□□ □□ □□□□ □□ □□□□ □□□□□□□?	1. □□□□□ □□□□□□ □□□□ □□ 2. □□□□□ □□□□□ □□□□ □□□□□ □□□□ □□ 3. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 4. □□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□ 5. □□□□□□ 6. □□□□ □□□□	
318	□□ □□ □□ □ / □□□□ □□□□ □□□□□□ □□□□□ □□□□□?	1. □□ 2. □□ - □□□□□□ □□ 321 □□□ 3. □□□□ □□□□	
319	□□□□□ □□ □□□□ □□□□ □□ □□□□□?	1. □□□□ □□□□□ 2. □□□□ □□□□ □□□□ 3. □□□□□□□□ □□ 4. □□ □□ (□□□□□) ----------	

320	□□□□□ □.318 □□□□ □□ □□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□ □□ □□ □ / □□□□ □□□□□□□ □□□□ □□□□□□ □□ □□□□ □□□□□□□?	1. □□□□□ 2. □□□□□ □□□□□□ □□□□ □□ 3. □□□□□ □□□□□ □□□□□□ □□□□ □□□□ □□ 4. □□□□□ □□□□□ □□□□□□ □□□□ □□□□ □□ 5. □□□□□ □□□□□□ □□□□ □□□□ □□ 6. □□□□□□ 7. □□□□ □□□□	
321	□□□□□□□ □□□□ □□□□ □□□□ □□□□ □□□□□ □□?	1. □□ 2. □□-- □□□□□□ □□ 325 □□□□□ 3. □□□□ □□□□	
322	□□□□□ □.321 □□□□ □□ □□□□ □□□□□□ □□□□□□ □□ □□□□ □□□□ □□□□□ □□□□□□□□□□□□ □□□□□□□ □□□□□ □□□□ □□□□□□ □□□□ □□□□□ □□?	1. □□□□□ □□□□ □□ □□□□□ □□□□ 2. □□□□□□ □□□□□□□ □□□□ □□ □□□□□□□ □□□□□□ □□□□□□ □□□□ 3. □□□□□□□ □□□□□□□ □□□□□□ □□□□□ □□□□ 4. □□ □□ (□□□□□) ---------- 5. □□□□□□ □□□□□□□	
323	□□□□□ □.321 □□□□ □□ □□□□ □□□□□ □□□□ □□□□ □□□□?	1. □□ 2. □□□□ 3. □□□□□□ 4. □□□□ □□□□	
324	□□□□□ □□□□□□□ □□□□ □□□□?	_____	
325	□□□□□□-□□□□□□□ □□□□ □□□□□□□ / □□□□ □□□□ □□□□□ □□□□□□?	1. □□ 2. □□□□ □□□□ □□□□ □□□□ □□□□□□ □□ □.□ 329 □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□	
326	□□□□ □□□□ □□□□ □□ □□□□□ □□□□□□□ □□ (□□) □□□□□□□?	1. □□□□□□ 2. □□□□□ 3. □□□□□ 4. □□ □□ (□□□□□) ----------	
327	□□□□□ □.325 □□□□ □□ □□□□ □□□□ □□□□ □□ □□ □□ □ / □□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□□□ □□□□□ □□□□□ □□□□□□?	1. □□ 2. □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□ □□□□	
328	□□□□□ □.325 □□□□ □□ □□□□ □□□□□ □□□□ □□ □□ □□ □ / □□□□ □□□□□□□□ □□□□ □□□□□ □□□□□ □□□□□□□ □□□□□ □□□□□ □□□□□□□ □□□□□□ □□ □□□□□		
328A	□□ □□□□ □□ □□□□□□ □□□□ □□□□□	1. □□ 2. □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□ □□□□	

328B	□□□□□□ □□□□□ □□□□□ □□□□□	1. □□ 2. □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□ □□□□	
328C	□□□□□□ □□□□□□ □□□□□ □□□□□□□	1. □□ 2. □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□ □□□□	
329	□□□□□□□ □□□□ □□□□ □□□□□□□□ □□□□□?	1. □□ 2. □□□□ 3. □□□□□□ □□□□□□□ 4. □□□□ □□□□ □□□□	
330	□□□□□ □.329 □□□□ □□ □□□□ □□□□□□□ □□□□□□□□ □□ □□□□□□□□ □□□□□□ □□□□□□□□ □□□□□□ □□□□□□ □□ □□□□□□□?	1. □□ 2. □□□□ 3. □□□□□□ 4. □□□□ □□□□ □□□□	

3.2 □□□□□ □ / □□□□□ □□□□□□□ □□□□□□□

□.□	□□□□□□	□□□□ □□□□□	□□□.□
331	□□□□□ □□□□□□□ □□ □□ □□ □ / □□□□ □□□□□□□□□ □□□□□ □□□□ □□□□ □□□□□ □□□□ □□□□□ □□? (□□□□□□□□□□ □□ □□ □□□□)	1. □□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□ □□ 5. □□□□□□□□□□ / □□□□□ 6. □□□□ □□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□ 10. □□□□□□ 11. □□□□ 12 □□□□□□ □□□□ 13. □□□□ 14. □□ □□ (□□□□□) ----------	
332	□□□□□ □□□□ □□ □□.□□.□ / □□□□□ □□□□□□ □□□□□□ □□□□ □□□□ □□□□□ □□□□□□ □□□□ □□□□□ □□□□□ □□? (□□□□□□□□□□ □□ □□ □□□□)	1. □□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□ □□ 5. □□□□□□□□□□ / □□□□□ 6. □□□□ □□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□	

		10. □□□□□□ 11. □□□□ 12 □□□□□□ □□□□ 13. □□□□ 14. □□ □□ (□□□□□) ---------- -----	
333	□□ □□ □□ □ / □□□□ □□□□□□□ □□□□□ □□□□ □□ □□□□□□ □□□□□ □□□□ (□□) □□□□□□ □□□□□□□□ □□□□□□ □□□□□□□□? (□□□□□□□□□□ □□ □□ □□□□)?	1. □□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□ □□ 5. □□□□□□□□□□ / □□□□□ 6. □□□□ □□□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□ 10. □□□□□□ 11. □□□□ 12 □□□□□□ □□□□ 13. □□□□ 14. □□ □□ (□□□□□) ---------- -----	
334	□□ □□ □□ □ / □□□□ □□□□□□□ □□□□□ □□□□ □□ □□□□□ □□□□ □□□□ □□□□□? (□□□□□□□□□□ □□ □□ □□□□)	1. □□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□ □□ 5. □□□□□□□□□□ / □□□□□ 6. □□□□ □□□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□ 10. □□□□□□ 11. □□□□ 12 □□□□□□ □□□□ 13. □□□□ 14. □□ □□ (□□□□□) ---------- -----	
335	□□ □□ □□ □ / □□□□ □□□□□□□ □□□□□ □□□□ □□□□ □□□□□□ □□□□□ □□□□□□ □□□□□□ □□□□□□ □□□□□□□□? (□□□□□□□□□□ □□ □□ □□□□)	1. □□□□□ 2. □□□□□ 3. □□□□□□ 4. □□□□□□ □□ 5. □□□□□□□□□□ / □□□□□ 6. □□□□ □□□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□ 10. □□□□□□ 11. □□□□ 12 □□□□□□ □□□□ 13. □□□□ 14. □□ □□ (□□□□□) ---------- -----	
336	□□ □□.□□.□ / □□□□ □□□□□□	1. □□□□□	

	□□□ □□ □□□ □□□□□□□□ □□□□□□□□ □□□□ □□□ □□□□□ □□□ □□□□ (□□□□) □□ □□□?(□□□□□□□□□ □□ □□ □□□)	2. □□□□ 3. □□□□□ 4. □□□□□ □□ 5. □□□□□□□□□ / □□□□ 6. □□□ □□□□□□□ 7. □□□□□ 8. □□□ 9. □□□□ 10. □□□□□ 11. □□□ 12 □□□□□ □□□ 13. □□□ 14. □□ □□ (□□□□) ----------	
337	□□□□□□□ □□□.□□.□ / □□□ □□□□ □□□□ □□□□□ □□□□□ □□□ □□□□ □□□□? (□□□□□□□□ □□ □□ □□□)	1. □□□□ 2. □□□□ 3. □□□□□ 4. □□□□□ □□ 5. □□□□□□□□□ / □□□□ 6. □□□ □□□□□□□ 7. □□□□□ 8. □□□ 9. □□□□ 10. □□□□□ 11. □□□ 12 □□□□□ □□□ 13. □□□ 14. □□ □□ (□□□□) ----------	
338	□□□□□ □□□□ □□□□ □□ □□ □□ □ / □□□ □□□□□□□ □□□□ □□□□ □□? □□□□□ □□ □□□□□ □□□□□ □□ □□□ □□□□□ □□□□ □□□□ □□□ □□□□□ □□□□ □□□□ □□□□□	1. □□□□ 2. □□□□ 3. □□□□□ 4. □□□□□ □□ 5. □□□□□□□□□ / □□□□ 6. □□□ □□□□□□□ 7. □□□□□ 8. □□□ 9. □□□□ 10. □□□□□ 11. □□□ 12 □□□□□ □□□ 13. □□□ 14. □□ □□ (□□□□) ----------	
339	□□ □□ □□ □ / □□□ □□□□ □□□ □□ □□□□□ □□□□□□□ □□□□□□□ □□□ □□□ □□□ □□□□?	1. □□□ □□□□ 2. □□□□ 3. □□□□□ 4. □□□□ 5. □□□□ 6. □□□□□ 7. □□□ □□□	
340	□□ □□ □□ □ / □□□ □□□□ □□□□ □□□□□ □□□□□□ □□□□□□ □□□□		

	□□ □□□□ □□ □□□□?		
340A	□□□□□□□ □□□□□ □□□□□□□ □□□□□ □□□□□	1. □□□ □□□□ □□□ 2. □□□ □□□□ □□ 3. □□ 4. □□□□□ □□ 5. □□ □□□□□ 6. □□□□□□ □□□□□□□ 7. □□□ □□□□	
340B	□□ □□□□□ □□□□□□ □□□□□□□ □□□□□□□ □□□□□	1. □□□ □□□□ □□□ 2. □□□ □□□□ □□ 3. □□ 4. □□□□□ □□ 5. □□ □□□□□ 6. □□□□□□ □□□□□□□ 7. □□□ □□□□	
340C	□□ □□□□□ □□□□□ □□□□□□□ □□□□□ □□□□□	1. □□□ □□□□ □□□ 2. □□□ □□□□ □□ 3. □□ 4. □□□□□ □□ 5. □□ □□□□□ 6. □□□□□□ □□□□□□□ 7. □□□ □□□□	

□□□ □□□□□ □□□□□ □ □□□□□□□□ □□□□□ □□ □□□□□

□□□□□□□ □□□□□□ □□ □□ □□ □ / □□□□ □□□□□□□ □ (Determinants of HIV/AIDS Knowledge, Attitude and Practice (KAP) among High School Students in Yeka Sub City, Addis Ababa, Ethiopia) □□□□□□□ □□□□□□□ □ □□□□□□□□ □ □□□□□□ □□ □□□□□□ □□ □□□□□□□□ □□□□□ □□□□□□□ □□□□ □□ □□□□□□ □□□□□ □□□□□□ □□□□ □□□□□□ □□ □□□□□□ □□□□ □□□□□□□ □□□□□□ □□ □□□□ □□□□□ □□□□□□□□□□□ □□□□□ □□□□ □□□□ □□

□.□	□□□□□□	□□□□ □□□□□	□□□ □□□□□
401	□□□□□□ 12 □□□□ □□□□ □□ □□□□□□/□□□□ □□□□□□	1. □□ 2. □□□□ 3. □□□□□□ 4. □□□□ □□□□	
402	□□ □□□□ □ □□ □□□□□ □□□□? (□□□□□□□□□□ □□ □□ □□□□□)	1. □□□□ □□ □ / □□□□ □□□□□□□ 2. □□□□ □□□□ / □□□□ □□□□□□□ □□□□□□ 3. □□□□□□□ / □□□□ □□□□□□ □□□□□	

		4. □□□□ □□□□ □□□□□ □□□□□□□ □□□□□□□ □□□□□ 5. □□ □□ (□□□□) ----------			
403	□□ □□ □□ □ / □□□ □□□□□ □□□□ □□□□□□ □□□ □□□□ □□□□ □□□□ □□□ □□? □□□ □□□ □□□ □□□ □□ □□ □□□□ □□□□ □□□ □□□ □□□□ □□□□ □□□□□□□1.	1. □□□□ ------ 2. □□□□ ------- 3. □□□□□□□ □□□□ ----- 4. □□□□□□□□ ----- 5.□□□ □□□□□□□ ------ 6. □□□-□□□ □□□□ ----- 7. □□□□□ ----- 8 □□□ ----- 9. □□□□□ ----- 10. □□□ □□□□□ ----- 11. □□□□ ----- 12. □□ □□ □□□□ ----------			
404	□□□□□□ □□□ □□□□ □□ □□ □□ □□□□□□ □□□ □□□□? □□□□ □□□□□ □□□□□ □□ (√) □□□□ □□□□□ □□□□□ □□□□□	□□	□□□	□□□□□	□□□ □□□
	□□□ □□ □ / □□□ □□ □□□□ □□□□ □□ □□□□				
	□□□ □□ □ / □□□ □□ □□□□ □□□ □□ □□□ □□□□				
	□□□ □□ □ / □□□ □□ □□□□ □□□ □□ □□□□□ □□□□ □□ □□□□				
	□□ □□ □ / □□□ □□□□ □□□ □□ □□ □□□□ □□ □□□□□ □□□□				
	□□□□□ □□□				
	□□□□□ □□□ □□ □□ □□□□□□ □□□ □□ □□□ □□□□				
	□□□ □□ □□□ □□□□ □□□□□ □□□□□□ □□ □□□□□□				
	□□ □□□ □□□□ □□				
	□□□□ □□□□ □□□ □□ □□□				
	□□□□□ □□□□□□ □□□ □□ □□□□□ □□ □□ □□□□□				
	□□□ □□ □ / □□□ □□ □□□□ □□□□ □□□□□□□ □□□□□ □□□□□				
	□□ □□ □□□□ ----------				
405	□□.□□.□ / □□□□ □□□□ □□□□□ □□□□? □□□□□ □□□□□ □□ (√) □□□□ □□□□□ □□□□□ □□□□□				

	□□□□□				
	□□□□				
	□□□□□ □□ □□ □□□ □□□□□ □□□□□				
	□□□□□□□ □□□□□□□ □□□□□ □□□□				
	□□□ □□ □ □□□□ □□□ □□ □□□ □□□□ □□□ □□□□□□ □□□□				
	□□ □□□□□□□ □□□ □□□				
	□□□ □□□□□□□ □□□ □□□□□				
	□□□□□□□ □□□ □□□ □□ □□ □□□□□ □□□□				
	□□□□□□□ □□ □□□□□				
406	□□□ □□□□?| 1. □□ 2. □□□ 3. □□□□□ 4. □□□ □□□				
407	□□□ □□ □□ □□ □ □□□□□□□ □□□□□□ □□□□□□ □□□□ □□?	1. □□ 2. □□□ 3. □□□□□ 4. □□□ □□□				
408	□□ □□ □□ □ / □□□ □□□□□□ □□□ □□□□□□ □□□□□□□□ □□□□□?	1. □□ 2. □□□ 3. □□□□□ 4. □□□ □□□				
409	□□□□□ 12 □□□ □□□ □□□□ □□□□□□□ □□□□ □□ □□□□ □□□□□□ □□□□?□□□ □□□□ □(√) □□□□ □□□□□	□□	□□□	□□□□□ □□□□□□	□□□ □□□	
	1. □□□ □□ □ / □□□ □□ □□□□ □□□ □□□□□□ □□□□ □□					
	2. □□□□□□ □□□□ □□□□ □□□□ □□□□					
	3. □□□□ □□□□□□ □□ □□□□□□ □□□□					
	4. □□□□ □□□□□ □□□□□ □□□□					
	5. □□ □□□ □□□□□ □□□□□□(□□□□□□) □□ □□□ □□□□□ □□□□					
	6. □□□□□□ / □□□ □□□□□□ □□□□					
	7. □□□□ □□□□□□ □□□ □□□□□ □□ □□□□□□ □□□□					
	8. □□□ □□□ □□□ □□ □□□□□ □□ □□□□□□ □□□□					
	9. □□□□□□ / □□□ □□ □□□□□ □□□ □□□□□ □□□ □□□□ □□□□					
	10. □□ □□ (□□□□) ------ -------					
410	□ 409 "□□" □□□ □□□□ □□□□□□ □□□ □□ □□□□□□ □□□□□□□□ □□□□□ □□□□□ □□□□ □□□□ □□□ □□? □□□	1. □□□□ 2. □□□□ 3. □□□□□□ □□□□ 4. □□□□□□□				

	□□□□□□□□ □□□□ □□□□□□□ □□□□□□□□□ □□□□□□ □□□□ □□□□□□ □□□□ □□□□□ □□□□□ □□□□ □□□□ □□ □□□□ □□□□□ □□□□□ □□□□□ □□□□□□	5. □□□□ □□□□□□□ 6.□□□□-□□□□ □□□□□ 7. □□□□□□ 8 □□□□ 9. □□□□□□ 10. □□□□ □□□□□□ 11. □□□□□ 12. □□ □□ □□□□□ ------				
411	□□□□□□□ □□□□□ □□ □□□□ □□□□□□? □□□□ □□□□□□ □□□□□□ □□ □□□□□□ □□□□□ (√)□□□□□ □□□□□□ □□□□□ □□□□	□□□□□□□	□□□□□□ □□□□□□□	□□□□□ □□		
	□. □□□□ □□□□□□ □□ □□□□□ □□□□□ □□□□□□□□ □□□□□					
	□. □□□□□ □□□□ □□□□ □□□□□□ □□□□□□ □□□□ □□ □□□□□ □□□□□□□ □□□□ □□□□ □□□□ □□□□ □□□□□□ □□□□□□ □□□□ □□ □□□□					
	□. □□□□□□ □□ □□□□□□ □□□□ □□□□□□ □□□□□□ □□□□□□					
	□. □□□□ □□□□□ □□□□□ □□□□□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□□□□					
412	□□□□□□□□ □□□□□□ □□ □□□□ □□□□ □□□□□□□? □□□□□□ □□□□□□ □□□□□□ □□ □□□□□ (√) □□□□□ □□□□□□ □□□□□□□ □□□□□□	□□	□□ □□□□□□	□□□□□ □	□□□□ □□□□	
	□. □□□□ □□□□ □□ □□□□□□□ □□□□□					
	□. □□ □□ □ / □□□□ □□□□ □□ □□ □□□□					
	□. □□ □□ □ / □□□□ □□□□ □□ □□ □□□□□					
413	□□□□□□□ □□□□ □□□□ □□□□ □□□□□□□□ □□□□□□ □□ □□□□ □□□□ □□□□□□□? □□□□ □□□□□ □(√) □□□□□ □□□□□□	□□□□ □□□□	□□□□	□□□□□ □□□□	□□□□ □□□□	□□□□ □□□□
	□. □□□□□ □□□□□□ □□□□					
	□. □□□□□□ □□□□□□ □□□□□ □□□□□□ □□□□ □□□□□					
	□. □□□□□ □□□□□					
	□. □□□□□ □□ □□□□□□ □□□□□□□ □□□□ □□□□□ □□□□□□□ □□□□□□					
	□. □□□□□ □□□□□					

	□. □□□□□ □□□□□□□ □□□□ □□□□□□ □□ □□□□ □□□□□□ □□□□□□ □□□□ □□□□					
	□. □□□□□ □□□□ □□□□□ □□□□□□ □□□□□□					
414	□□ □□ □□ □ / □□□□ □□□□□ □□□□ □□□□□□□ □□□□□□?	1. □□ 2. □□ 3. □□□□□□ 4. □□□□ □□□□				
415	□□□□□ □□ □□□□ □ □□ □□□□□□ □□□□□ □□□□? (□□□□□□□□ □□ □□ □□□□)	1. □ □ □□□□□□ □□□□(□□□□□) 2. □□□□□□ □□ □□□□□□ □□□□□ □□□□□ 3. □□□□□□□ □□□□□□□ □□□□□ □□□□□ □□□□□□ 4. □□□□□□□ / □□□□ □□ □□ □□□□ □□ □□ □□□□□□ □□□□□□ 5. □□□□□ □□□□□□ □□□□ □□□□□ 6. □□□□□ □□□□ □□□□ □□ □□□□□ 7. □□ □□ (□□□□□) ----------				
416	□□□□□□ □□□□□□□ □□□□□□ □□□□□□ □□□□□ □□□□□ □□□□ □□? □□□□□□□ □□□□□□ □□□□ □□□□□□□ □□□□ □□□□□ □□□□□ □□□□□□ □□□□□ □□□□□□ □□□□□□ □□ □□□□ □□□□ □□	1. □□□□□ ------ 2. □□□□□ ------- 3. □□□□□□□ □□□□□ ----- 4. □□□□□□□□ ----- 5.□□□ □□□□□□□ ------ 6. □□□-□□□ □□□□□ ----- 7. □□□□□□ ----- 8 □□□ ----- 9. □□□□□□ ----- 10. □□□ □□□□□□ ----- 11. □□□□□ ----- 12. □□ □□ □□□□□ ----------				
417	□□□□□□ 12 □□□ □□□ □□□□□ □□ □□□□□□ □□□□□□?	1. □□ 2. □□□ 3. □□□ □□□				
418	□□□□□□ 12 □□□ □□□ □□□ □□□□□-□□ □□□□□□ □□□□□ □□□□□□?	1. □□□ □□□ □□ 2. □□□□□ □□□ □□□□□ □□□□□ 3. □□□□□□ □□□ □□□□□				
419	□□ □□□ □□□□□ □□□□□ □□□ (□□□□□ □ 3 □□□ □□□ □□□ □□□□□□ □□□□□□ □□□□□ □□)					

420	□□ □□□□ □□□□□ □□□□□ □□□□ □□□□ (□□□□□ □ 3 □□□□ □□□□ □□□□ □□□□□□ □□□□□□ □□□□□ □□)		
421	□□□□□ □□□□□□□□ □□□□ □□□□ □□□□□ □□□□ (□□□□□□ □□ □□□□ □□□□□□□□ □□□□□ □□□□□ □□□□ □□□□□□ □□□□□□)		
422	□□□□□ 12 □□□□ □□□□□ □□ □□□□□□ □□□□□□□□□□ □□□□ □□□□□ □□ □□□□□ □□□□□ □□□□□□□□?	1. □□ 2. □□□□ 3. □□□□□□□□□ 4. □□□□ □□□□	
423	□□□□□ 12 □□□□ □□□□□ □□ □□□□□□ □□□□□ □□□□ □□□□ □□ □□□□□ □□□□?	1. □□□□□ 2. □□□□□ □□□□ □□□□□ 3. □□□□□□ □□	
424	□ □□ □□□□□ □□ □□□□ □□□□ □□□□□ □□□□□□□ □□□□? (□□□□□□□□□□ □□ □□□□)□	1. □□□□□□ 2. □□□□ □□ □□□□□ 3. □□□□ □□□□□□□ 4. □□□□□□□ 5. □□ □□□□□□□ □□□□□□ □□□□□□□ 6. □□□□□ □□□□□□□ 7. □□□□□□ □□□□□□ □□□□□ 8. □□□□□□□ □□□□ 9. □□ □□ □□□□ ----------	

□□□ □□□□□: □□□□□ □□□□□ □□□□□□ □□□□□□□ □□ □□□□□ □□□□

□.□	□□□□□□	□□ □□□□□	□□□□□ □□□□

501	□□ □□.□□.□ / □□□□ □□□□□□□ □□□□□□□ □□□□ □□?	1. □□□□□ 2. □□□□□ 3. □□□□□□□ □□□□□ 4. □□□□□□□ □□□□ □□□□□□ □□□□ □□□□□ 5. □□□□ □□□□ □□□□□ 6. □□□□ □□□□□□□ 7. □□□□□□ 8. □□□□ 9. □□□□□□ 10. □□□□□ □□□□□□ 11. □□□□□ 12. □□□□ □□ □ / □□□□ □□ □□□□□ □□□□ 13. □□□□□ 14. □□ □□ □□□□□ ----------	
502	□□□.□□.□ / □□□□ □□ □□□□□□□ □□□□□ □□□□□□ □□□□□□ □□□□ □□□□□ □□□□ □□□□□□□□ □□□□□□ □□	1. □□□□□ 2. □□□□□ 3. □□□□ 4. □□□□□□□ 5. □□□□□□ 6. □□ □□ □□□□□ ----------	

503	□□ □□ □□ □ / □□□ □□□□ □□□□ □□□□□□□□ □□□ □□□□ □□□□□		
504	□□□□ □□□ □□□□□□ □□□□ □□□□ □□□□ □□□ □□□ □□□□ □□□□ □□□□□ □□□		