

# Students' Knowledge, Attitude and Practices on HIV/AIDS Preventions at Ambo University, Ambo, Ethiopia

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## Abstract

Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (HIV/AIDS) are among serious health problems and obstacles of the development. Having realized the consequences, Ambo University has been involved in interventions to improve the knowledge, attitude and practices of student community; to prevent and control HIV/AIDS. This study assessed the level of students' knowledge, attitude and practices on the prevention of HIV/AIDS; and identifies the determinants of students' knowledge, attitude and practice on the prevention of HIV/AIDS at Ambo University. Cross-sectional survey type was used for data collection using questionnaire, Focus Group Discussion, Key Informant Interview and observation; and was analyzed using descriptive statistics and econometric model. The study considered the undergraduate regular students of Ambo University as a target population of the study. Multistage stratified sampling technique was employed to include respondents in the study from different departments and class year. The findings indicated that respondents were knowledgeable and had positive attitude towards preventing HIV/AIDS, though majority were not practicing HIV prevention methods. The econometric model also revealed that class year, religion, training, PICT, interest for PICT, knowledge, condom accessibility were positively significant in influencing the adoption of HIV prevention methods. Hence, it is recommended that the University, Ambo hospital, anti HIV/AIDS clubs of the University, and the different NGOs working on HIV/AIDS prevention and control should synergistically coordinate their activities to bring the desired behavioral change on the students; and mainstreaming HIV/AIDS issues in different activities of the University.

**Key words:** *Attitude, HIV/AIDS, Knowledge, Practices*

## Introduction

The first evidence of HIV infection in Ethiopia was detected in 1984 and AIDS case report was made in 1986 (Tsega et al., 1988). In Ethiopia, the national adult prevalence rate is estimated at 2.3% and an estimated number of 1.2 million people are

living with HIV/AIDS (*United States Agency for International Development, USAID, 2010*). The same study reports that about 67,000 people lost their lives due to HIV/AIDS at the end of 2007. As noted by Ethiopian Health and Nutrition Research Institute (EHNRI), (2009), in Ethiopia the prevalence of HIV/AIDS among

young people of age 15–24 years was 2.6%. According to World Health Organization/ United Nations Children's Fund, WHO/UNICEF (2006) although HIV/AIDS affects all segments of the population, young people were largely affected, and young females were largely affected than young males. It is found to be the major barrier for the development of the country. As a result HIV/AIDS prevention is found to be the overriding policy agenda of the Ethiopian government. Hence, increasing the awareness, knowledge and attitude level of the people is vital measure to preventing HIV. In line with this, the Ethiopia government has made various efforts to improve the knowledge, attitude and practice level of the citizens on HIV/AIDS, by establishing HIV/AIDS Prevention and Control Offices at both national and regional levels. The establishing of different HIV/AIDS prevention and control units at various stages in different organizations are some endeavors to mention. Similarly, at higher learning institutions of the country there are HIV/AIDS prevention and control units that intensively work on the prevention of HIV/AIDS.

Though such efforts are made, according to Elias (2009) and Getinet (2009), AIDS incidence has been on the increase and constitutes a big problem among College and University students in Ethiopia. Evidence showed that most sexual risk behaviors among College and or

University students might have been acquired through period of campus life mainly due to the life of independence, away from parental control, that often characterizes such settings (Teka, 1993). This indicates that students of higher learning institution including Ambo University are most likely exposed to the risk of HIV/AIDS. This background fact led to investigating the real status of Ambo University students knowledge, attitude and practices towards the disease, which in turn, shall contributes further to develop intervention measures. Therefore the objective of this study was to assess the level of students' knowledge, attitude and practice on prevention of HIV/AIDS; and to identify the determinants of students' knowledge, attitude and practice towards the prevention of the disease.

## Materials and Methods

### The study unit

Ambo University (AU) is one of the 31 higher learning institutions in Ethiopia. It is situated in West Showa zone, Ambo town at about 114 km West of Addis Ababa on the road to Nekemt town. It was established in 1939 as an Agricultural school. After frequent restructuring with different names and levels of education, it become a full-fledged higher learning institution (University) in 2009. The University has three mandate areas that include teaching, research and community services. In addition, the

university conducts short term trainings, and offers outreach and consultancy services.

Presently, the University is organized into five Colleges (Agriculture and Veterinary Sciences, Business and Economics, Natural and Computational Sciences, Social Sciences and Humanities and Medicine and Health Sciences); three Institutes (Education and Professional Studies, Technology, and Cooperatives and Development Studies); and one school (school of law). The University has more than 30 academic departments with 11 Graduate and 38 Undergraduate programs. It has also one faculty (Faculty of Business and Economics) located at Woliso Campus. The University has undergraduate and post graduate regular, continuing education, summer and winter programs. In all programs, the university has 15,841 (male=11,972, female=3,869) students of which 8,932 (male=6,686, female=2,246) are undergraduate regular in 2012/13 academic year.

### Sampling techniques

Purposive sampling technique was employed to identify the target population of the study. The main reason for selecting undergraduate regular students purposively is that in the university, frequent intervention for preventing HIV/AIDS is made with regular students. Ambo University has three campuses (Ambo main campus, Awaro and Woliso).

The study focused on the main campus of the University where eight out of the nine colleges/institutes/school are found.. Multistage stratified sampling technique was employed to include respondents in the study from different departments and class year. The sampled respondents were first stratified into colleges/institutes/school, and then further categorization was made into departments and class year. The three colleges/institute/school and the two departments from each were selected randomly. While a systematic sampling technique was adopted to select the study respondents.

### Sample size determination

Sample size was determined following the formula used by Araoye (2004). This formula was adopted because the total population size is less than 10,000. Where N (the entire population) is less than 10,000 the required sample size will be smaller.

$$n_f = n / 1 + (n / N)$$

Where;

$n_f$  = the desired sample size (when the population is less than 10,000)

N = the estimate of the population size

n = the desired sample size when the population is more than 10,000 which is estimated to be 280. The population size (N) of the sampling frame was 1698 undergraduate students.

$$n_f = 280 / (1 + 280 / 1698) = 280 / 1.164 = 240$$

Accordingly, the total sample size for the study was 240 students. From each department, 40 students were selected

and the sample size of male and female students was determined through probability proportional to size

### Data collection

Cross-sectional survey type was used to obtain quantitative and qualitative data. Both primary and secondary sources were used. Primary data were obtained from the selected sample respondents through administering questionnaire, personal interview, Focus Group Discussions. The self-administered questionnaire was prepared and pre-tested to make all the necessary amendments on the questionnaire. With close supervision, enumerators made discussions with the selected respondents briefing the objectives of the study. Oral consent was obtained from each respondent. Secondary data were also collected from different sources such as books, research publications, journals, office reports, Internet sources, HIV/AIDS prevention office and clinic in January and February 2013.

For qualitative data, attitude was measured using the five-point Likert-scale from (5) for strongly agree to (1) for strongly disagree. Finally, the aggregate result of each respondent on the Likert-scale was taken for the analysis. Whereas, knowledge was determined using 10 practical questions on HIV/AIDS with responses 'True' or 'False'; and the total result of each respondent is taken out of 10 for the analysis.

### Data analysis

To answer the stated research questions of the proposed research, the tools used for data analysis include descriptive statistics such as percentages, frequencies, mean and standard deviations; and t-test and  $\chi^2$  were employed to test the significance of continuous and discrete variables, respectively.

An econometric model was also employed to analyze determinants that affect the improvement of students' knowledge, Attitude and Practice on the prevention of HIV/AIDS. A binary logit model was used to identify the determinants of Students' Practice on the prevention of HIV/AIDS.

Following (Gujarati, 1995) the model is specified as:  $\text{Ln} [p / (1-p)] = b_0 + b_1X_1 + b_2X_2 + b_3X_3 \dots b_nX_n + e$ . The dependent variable is the natural log of the probability of practicing the prevention of HIV/AIDS (P), divided by the probability of non-practicing the prevention of HIV/AIDS (1-P). The model was estimated using the maximum likelihood method.

A qualitative method, particularly content analysis was used to analyze the content of the discussion, which in turn was used to summarize the core idea of the discussion. Additionally, the finding of the qualitative analysis was used for triangulating the quantitative data.

## Variables of the study

The dependent variable of the study is a practice on the prevention of HIV. It is dummy variable and the respondents were asked whether they practice at least one of the common HIV prevention methods (use condom, faithfulness and abstinence from sex) or not. Those who respond are "yes" considered as practicing HIV prevention methods, whereas those who respond are "no" was considered as non-user of HIV prevention method. Nigatu and Seman (2011) have also employed similar approach in their study.

The independent variables of the study are hypothesized as follows:

Age, continuous variable (+)

Year of the study (years of education (+)

Knowledge on HIV/AIDS (continuous variable (+)

Attitude towards HIV/AIDS prevention (continuous variable (+)

Religion participation, dummy variable (+)

Training effort on HIV/AIDS, (dummy variable, (+)

Exposure to pornography view, dummy variable (-)

Alcohol intake, dummy variable (-)

khat chewing, dummy variable (-)

Cigarette smoking, dummy variable (-)

Provider Initiated Counseling and Testing (PICT), dummy variable (+)

## Results and Discussion

### Knowledge of respondents on HIV/AIDS.

The knowledge of the respondents was tested using 10 pragmatic questions on HIV/AIDS prevention and transmission. The questions include: Condoms reduce the risk of getting the AIDS virus; HIV/AIDS can be transmitted via sharing syringes/needles; Abstinence from sexual intercourse prevents HIV; It is possible to have a negative HIV blood test in the first couple of months after becoming infected with HIV; HIV can be transmitted through breast-feeding; A person can get AIDS by kissing someone; HIV can be transmitted by eating raw meat prepared by HIV infected person; HIV can be transmitted by eating uncooked egg laid by a chicken that has swallowed a used condom; Mosquito bite can transmit HIV; Keeping in good physical condition is the best way to prevent getting the AIDS virus. The respondents were made to answer the questions providing the alternatives "true or false".

A summary of data presented in Table 1 showed that the respondents were found to be knowledgeable with mean score of 7.9 and 8.1 for users and non-users, respectively. The result is consistent with reports of Shitaye et al. (2004), who found that the level of knowledge about HIV/AIDS was high among the respondents. There is significant mean difference at  $P < 0.05$  between the groups. Though the knowledge level of the respondent is above the average, the majority of the respondents were not using the HIV prevention methods. As a result of

group discussion, it was mainly due to condom inaccessibility and cultural barriers. There is a cultural influence to liberally take condom from someone and use it. In the other way,

the supply of condom was not accessed in the way that the students could obtain by their own.

Table 1. Knowledge and attitude of respondents on HIV/AIDS (n=240)

Variables	User n=108	Non-user n=132	T-value	P
Knowledge	M= 7.9 (1.7)	M=8.1(1.3)	2.265	0.025
Attitude	M=3.2 (0.59)	M=3.3(0.53)	0.851	0.396

M=mean, the numbers in parenthesis indicate standard deviation

### Attitude of the respondents towards HIV/AIDS prevention

The attitude of the sample respondents have been measured using a five point likert scale. For the purpose, 10 items were prepared and reviewed by experts. After incorporating the expert comments, the respondents measured the items on five point likert scale. Accordingly, the mean of attitude score was 3.2 and 3.3 for user and non-user, respectively. As summarized in Table 1, it has no significant mean difference

as the user and non-user of the HIV/AIDS prevention practice have similar score of attitude towards preventing and controlling HIV/AIDS. As shown in Table 2, about 64.8% of the users were willing to treat HIV/AIDS patient properly without discrimination. About 66.7% the non-users reported HIV/AIDS patient students needed to be treated separately. Among the users (36.4 %) and non-users (63.6 %) responded that HIV/AIDS patient should have a separate washing and toilet facilities in the university.

Table 2. Respondents' view towards HIV infected students (n=240)

R. no.	Items	User (%) n=108	Non-user (%) n=132	Total (%)
1	Students infected with HIV/AIDS should have separate washing and toilet facilities at university	36.4	63.6	100
2	HIV infected students should be treated differently	33.3	66.7	100
3	I treat them as anyone and I do not discriminate them	64.8	35.2	100

As indicated in Table 3, the respondents have also reported on the HIV/AIDS means of transmission. About 66.7% users responded that HIV/AIDS transmits through sexual

intercourse without using condom; from infected syringes (60%); from infected blood (63.2%). There was also misconception among the users in considering that HIV/AIDS can be

transmitted by mosquito and other insect biting, sharing common toilet (50%); sharing bath room and swimming pool (14.3%).

Table 3. Respondents view on the means of HIV transmission (n=240)

Items	User (%)	Non-user (%)	Total %
	n=108	n=132	
Through sexual intercourse without a condom	66.7	33.3	100
From infected syringes	60	40	100
From infected blood	63.2	36.8	100
Mosquito and other insect biting	50	50	100
Sharing common toilet, bath room and swimming pool	14.3	85.7	100

### Practices of respondents on HIV prevention

Sources of information on HIV/AIDS information were mainly electronic media and it was followed by HIV/AIDS prevention and control office, friends, and printed materials. The practices of the respondents have been seen assessed in line with the three programmatically important HIV/AIDS prevention methods (correctly use of condom during sexual intercourse, having one

uninfected faithful partner and abstaining from sex). As summarized in Table 4, about 47.08% of the respondents were sexually active during the past 12 months. Of those who reported having had sex, identified the partner as university student (12.08%), sex worker (5%), high school student (13.34%), husband/wife (16.66%). Among users who reported that they have had sexual intercourse, the mean age at first sexual intercourse was 18 years, which is ranged from 14-27 years old.

Table 4. Respondents` sex partners and sexual experience during the past 12 months (n=240)

R. no.	Respondents sex partners	Partners	Sexual experiences of the past 12 months		
			Percent	Response	Percent
1	University Student		12.08		
2	Sex worker		5		
3	High school student		13.34	Yes	47.08
4	Husband/wife		16.66		
5	Had no sex		52.92	No	52.92
	Total		100	240	100

As depicted in Table 5, the majority of the respondents (64.5%) were not using condom during the past 12 months. Though the majority of

students were not using HIV/AIDS prevention methods, 48.4% ranked abstinence from sex as the best method to prevent HIV/AIDS (Table

6). It followed with faithfulness (25.1%) and use of condom (19.1%). Unexpectedly, 7.4% of the respondents selected not to use any preventive methods.

Table 5. Sexually active respondents report on the use of condom (n=240)

Use of condom during the first sexual intercourse		Use of condom during the past 12 months
Response	Percent	Percent
Yes	33.7	35.5
No	66.3	64.5
Total	100	100

Table 6. Respondents report on prevention methods of HIV

Items	Frequency	Percent
Use Condom	46	19.1
Faithfulness	59	25.1
Abstinence from sex	116	48.4
No need of using any preventive methods	19	7.4
Total	240	100.0

The study looked into variables that may lead the students to risky behaviors such as pornographic film show, alcohol drink intake, khat chewing and cigarette smoking. The variables did not indicate variation among the respondents as almost all of them responded "not using" for the questions that are related to the variables. As a fact, FGD was used to see the impact of the variables related to risk behaviors. The group agreed on negative impact of the variables in that the students who use the identified variables (pornographic film show, alcohol drink intake, khat chewing and cigarette smoking) less likely practice HIV prevention methods.

### Conditions promoting exercising sex in the University

Table 7 shows the main reasons that forced the respondents to exercise sex in the university. As shown in the table, about 34.1% of the respondents reported that being out of the control of parents was the main reason for exercising sex. Other reasons identified by respondents where living outside the campus (21%), lack of students control at the dormitory (11.4%), existence of hidden areas in the university (19.2%), and academic assistance (14.4%).



Table 7. Conditions promoting for exercising sex in the university (n=240)

Items	Percent
Being out of the control of the parents	34.1
Living out of the campus	21.0
Lack of control whether the students regularly live in the dormitory or not	11.4
Existence of hidden areas in the university	19.2
For academic assistance	14.4
Total	100.0

Effectiveness of HIV/AIDS intervention

In the university various interventions were made with the support of different organization such as National Alliance of State and Territorial AIDS Directors (*NASTAD*) Ethiopia, DKT/Ethiopia, United Nations Population Fund (*UNFPA*), United Nations Children's Fund (*UNICEF*) and Ambo University. With the support of these organizations, HIV clubs both by the students and staff of the university are working on HIV/AIDS prevention. The students anti HIV/AIDS club are working on awareness creation mainly through training, pamphlet distribution, face to face discussion, poster preparation etc. Though such efforts were made, the changes on the behavior of the students were not encouraging. In this regard, Focus Group Discussion was made emphasizing on the effectiveness of the HIV/AIDS intervention with the students, anti HIV/AIDS clubs, gender club, art club and women students association. The interventions were not in the organized way. There were piece meal approach and lacks holism. Each clubs lack rule and regulation that governs them, participation of women were found to be less. As a result, few committed individuals were

accomplishing the activities of their club, which was not to the level of expectation. There was also no well established linkage among the clubs and supporting organizations. FGD rectify that interventions bring positive impact when they are systematically planned, coordinated and has pre-determined objectives.

The students also got HIV/AIDS training during their elementary, secondary and preparatory education period. Though such efforts were made, the desired behavioral change was not attained. In this regard, FGD was held focusing on marking out the reasons for the less number of respondents to have practiced HIV/AIDS prevention method. The main reason raised during group discussion was that the death rate reduction as a result of anti HIV drugs caused the students to overlook the severity of HIV/AIDS. The interventions were also focused on educational aspect and the others structural aspects which are also important in preventing HIV were overlooked. For instance, the anti HIV/AIDS clubs were not strengthened with human power. Likewise, it was not well coordinated

as there was no binding rule and regulation. The clubs were not also cascaded to the colleges/institutes/school and to the departments. This implies that mainstreaming efforts of the activities were not progressing.

HIV/AIDS behavioral change interventions are effective when risk behaviors are reduced and PICT programs are used by the students. As summarized in Table 8 the variables related with HIV intervention such as training availability, condom availability, getting service of PICT and having interest to PICT have been tested using  $\chi^2$ . All the selected variables were found to be

significantly different at  $P < 0.05$  except the variable getting service of PICT which is significantly different at  $P < 0.01$ . It implies that making intervention with organizing training, creating easy access to condom, service of PICT, developing the interest of the students to PICT lead the respondents towards practicing HIV prevention methods. In line with this, during the group discussion the users have shown interest in Provider Initiated Counseling and Testing (PICT) to be done twice annually as it helped the students to know themselves and take more caution to the prevention of HIV/AIDS.

Table 8. HIV interventions status distribution by sample respondents (n=240)

Variables	Response	User	Non-user	Total	$\chi^2$
Training availability	No	54(38.3)	118(61.7)	192 (100)	4.768**
	Yes	9 (18.2)	39 (81.8)	48 (100)	
Condom availability	No	61 (40.4)	89 (59.6)	150 (100)	3.888**
	Yes	33 (25.4)	67 (74.6)	90 (100)	
Getting service of PICT	No	65(38.2)	105 (61.8)	170 (100)	5.337***
	Yes	14 (20)	56 (80)	70 (100)	
Having interest to PICT	No	35 (42.9)	137(57.1)	172 (100)	4.179**
	Yes	13 (18.2)	55 (81.8)	68 (100)	

( ) percentage \*\* , \*\*\* significant at  $P < 0.01$ ;  $P < 0.05$

### Determinants of HIV prevention methods

Explanatory variables that are selected for econometric model would be discussed based upon the model output. Accordingly, as indicated in Table 9, 80.3 % of the total variation for the practicing HIV prevention method is explained by logistic model. The  $\chi^2$  result also shows that the parameters are significantly different

from zero at  $P < 0.01$  for practicing HIV prevention method. The model correctly predicted sample size of 77.8 % and 82.1% for users and non-users, respectively. The explanatory variables that fit the model, class year, religion, training, getting service of PICT, interest for PICT, knowledge, condom accessibility were found to be significant as hypothesized, where as the other explanatory variable, age was insignificant.

Table 9. Logistic regression for factors influencing HIV prevention methods (n=240)

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Class year	1.157	.569	4.127	1	.042	3.180
Religion	3.350	1.806	3.442	1	.064	.035
Training	4.013	1.421	7.978	1	.005	55.327
PICT	2.550	.897	8.077	1	.004	12.813
Interest for PICT	1.833	.992	3.413	1	.065	6.249
Knowledge	.669	.298	5.049	1	.025	1.951
Access to condom	1.923	.917	4.399	1	.036	6.845
Age	.245	.183	1.788	1	.181	.782
Constant	-11.622	5.685	4.179	1	.041	.000

-2 log likelihood = 51.554,  $\chi^2 = 37.748^{***}$ , Predicted user = 77.8 %

Non-user = 82.1%, Over all = 80.3%

\*, \*\*, \*\*\* significant at  $p < 0.1$ ,  $p < 0.05$ , and  $p < 0.01$

The result of the explanatory variables that significantly influenced the practicing of HIV prevention method are presented below;

**Class year:** As the students attained a higher class year the students get more exposure and understanding about HIV/AIDS means of transmission and prevention methods. Class year was found to be statistically significant at  $P < 0.05$ . The odds in favor of practicing HIV prevention method increased by a factor of 3.180 for students as they attained higher class year.

**Religion:** attending religion service regularly was found to be statistically significant at  $P < 0.1$ . The odds in favor of practicing HIV prevention methods increased by a factor of 0.035 for students who attended religious service and they also had favorable attitude on HIV/AIDS prevention methods than those who did not attend the religious service. The result

is supported by earlier study of Nigatu and Seman (2011) who reported that religious service attendance recorded the highest significant factor among respondents. In addition to being positively associated with attitudes of HIV prevention.

**Getting service of PICT (PICT):** The result on students getting the service of PICT was statistically significant at  $P < 0.01$ . The odds in favor of practicing HIV prevention method increased by a factor of 12.813 for students who got the service of PICT compared to those students who did not. The group discussion carried out indicated that students benefitted from PICT service, and group unanimously agreed that if the PICT service is offered twice annually it will assist the students to better understand themselves and take more caution on the prevention of HIV/AIDS.

Interest for PICT: the students who developed interest to get the service of PICT more opt for practicing HIV prevention methods. It is statistically significant at  $P < 0.1$ . The odds in favor of practicing HIV prevention method increased by a factor of 6.249 for students who had interest to get the service of PICT compared to those students who had no interest to get the service of PICT.

Condom accessibility: making the accessibility of the condom in the way that the students get by their own increase the practicing of HIV prevention methods. As anticipated, condom accessibility affected practicing of HIV prevention method positively and significantly at  $P < 0.05$ . The odds in favor of practicing HIV prevention method increased by a factor of 6.845 for students who easily accessed condom compared to those students who did not get condom easily. During the FGD inaccessibility of condom was also raised by the group. There is a cultural influence to liberally take condom from someone and use it. As a fact the group suggested self accessed mechanism to be designed in the university for instance making it available around the dormitory.

Knowledge: practicing HIV prevention method needs knowledge on means of transmission. It is statistically significant at  $P < 0.05$ , the odds in favor of practicing HIV prevention method increased by a factor of 1.951 for students who had

better knowledge on HIV/AIDS prevention methods. The result also agrees with Shitaye *et al.* (2004) Teka (1993) and Teka (1997). The group discussion was also held with group members of 6-8 students. The theme of the discussion was "how the students understand the severity of HIV/AIDS and respond to its prevention and control." Through the course of discussion, it was identified that the students have knowledge on the incurability and destructiveness of the disease. The students have also favorable attitude towards HIV prevention. However, the knowledge on the disease did not lead them to practice HIV/AIDS prevention methods.

Training: training increases the knowledge of students on practicing HIV prevention method as they get more access to information. It also increases the understanding on the means of HIV transmission which, in turn, helps to easily apply the practices. As hypothesized, training influences practicing of HIV prevention method positively and significantly at  $P < 0.01$  %, the odds in favor of practicing HIV prevention method increased by a factor of 55.327 for students who had more training opportunity. The result is also supported by earlier studies of Harding (1999). As of the FGD, different interventions have been made to prevent and control HIV/AIDS, though practicability of using HIV prevention methods is not found to be sound. For instance,

training has been offering frequently by DKT Ethiopia and students' anti HIV/AIDS club of the university. The desired behavioral change was not observed on the majority of the students. In this regard, one of the participants of the group discussion said "the main reasons for not seeing the real change on the behavior of the student is that the training was offered in such a way that students did not inculcate the message. It seems teasing and most of the students take it as a recreational exercise.

## Conclusion and Recommendations

HIV/AIDS is one of a serious health problems and an obstacle to development. As a result, at Ambo University, various interventions have been undertaken with the support of different organization such as National Alliance of State and Territorial AIDS Directors (NASTAD) Ethiopia, DKT/Ethiopia, United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF) and Ambo University. The study showed that with the support of these organizations, HIV clubs both by the students and staff of the University are working on HIV/AIDS prevention. The prevention campaign is carried out through awareness creation mainly by organizing training, pamphlet distribution, face to face discussion, and posters.

Though such efforts were made, the changes on the behavior of the students were not encouraging. Hence, the following recommendations are given.

The interventions made on HIV/AIDS were not in the organized way. It needs well established linkage among the anti HIV/AIDS clubs, hospital of the town and supporting organizations i.e. working synergistically to bring positive impact. Continuous assessment on the impact of the interventions is also needed for obtaining immediate feedback and reacts accordingly.

Different anti HIV/AIDS clubs needs to be cascaded and mainstreamed to the colleges/institutes/school and the departments. The supply of the condom needs to be more accessible i.e. self accessed mechanism has to be designed in the university such as making it available around the student dormitory.

Training should be offered by professionals that have more experience on HIV/AIDS prevention and control and should be organized as soon as the students join the university.

The interventions should not only focus on educational aspect but also on others structural aspects which are also important in preventing HIV i.e. strengthening the anti HIV/AIDS clubs with human power; cascading the activities to different units.

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