ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH

Assessment of HIV Prevention Practice and determinant factors among daily laborers of Holeta floriculture, Oromia Special Zone Surrounding Finfine, Ethiopia 2013

By
Adane Kebede (Bsc)

Advisor:
Dr. Abera Kumie (MD, MSc, PhD)

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Acronyms and Abbreviations

ABC	**Abstinence, Be faithful, Condom use**
AIDS	**Acquired Immunodeficiency Syndrome**
BSS	**Behavioral Surveillance Survey**
EDHS	**Ethiopia Demographic Health Survey**
FGD	**Focus Group Discussion**
FMOH	**Federal Ministry of Health**
GPA	**Global Program on AIDS**
HAPCO:	**HIV/AIDS prevention and Control Office**
HIV	**Human Immunodeficiency Virus**
ILO	**International Labour Organization**
IOM	**International Organization for Migration**
IRB	**Institute of Review Board**
KAP	**Knowledge, Attitudes and Practices**
MARP	**Most-at-risk population**
MOH	**Ministry of Health**
SPM	**Strategic Plan for Intensifying Multispectral HIV and AIDS Response**
UN	**United Nations**
UNAIDS	**United Nations Program on HIV/AIDS**
VCT	**Voluntary Counseling and Testing**

Abstract.

Background: The transmission of Human Immunodeficiency Viruses significantly affected by the knowledge and practice of the working population. The utilization of recommended health services for the prevention HIV is essential among a growing working population in floriculture sectors.

Objectives: To assess HIV Prevention Practice and determinant factors among daily laborers of floriculture in Holeta Town.

Methods: Institutional based cross sectional study was conducted from March 2013 to April 2013 to assess HIV prevention practice and determinant factors among daily laborers in floriculture of Holeta Town. Two stage sampling technique was deployed; both quantitative and qualitative data were used. A total of 649 daily laborers were selected randomly from the list of floriculture workers based on the proportion to the size of daily laborer. The data was collected using a pre-tested and structured questionnaire. Qualitative data was obtained using focus group discussion. Quantitative data was entered by using EPI info version 3.5.3 then exported to SPSS 16 version for cleaning and analysis. Logistic regression was employed to identify factors influencing prevention practice. Qualitative data were transcribed and translated into English, and then analyzed manually by grouping the ideas into similar thematic sets.

Results: Among 649 who were interviewed, 466(71.8%) were females. The majority of the study participants 591(91%) were knowledgeable towards prevention methods. 210(32.4%) daily laborers used abstinence as a preventive methods, where as 54.2% laborers used faithful as a preventive methods, among sexually active daily laborers 156(35.6%) used condom as a preventive methods. Educational status, marital status, age, income, residence and alcohol drinking were associated with prevention practice. Study participants who attended primary education abstained more frequently than those who were illiterate (AOR=1.59; 95% CI (0.78, 3.22) and those who attended secondary and above educational level utilize condom more frequently than those who were illiterate (AOR=2.76; 95%CI (1.35, 5.62). Study participants who lived in urban less abstained than those who lived in rural (AOR= 0.58; 95% CI (0.37, 0.93) whereas those who lived in urban used condom more frequently than those who lived in rural (AOR=2.976; 95% CI (1.68, 5.26). Study participants who were currently married less likely used condom than those who were not married (AOR=0.27; 95% CI (0.15, 0.50).

Conclusion: The majority study groups were knowledgeable on means of HIV prevention but only a few of them use preventive practice. We also conclude that this study has shown that incomes, age, educational status, marital status, residential areas and alcohol drinking were factors which influence preventive practice of HIV.

Keywords: Prevention practice; HIV/AIDS; daily laborers; flower cultures, Holeta town, Ethiopia.

1. Introduction

1.1 Background:

HIV/AIDS is regarded as the leading cause of death in the world. The spread of HIV in the world is affecting all the organizations and communities. Globally, 34.0 million (31.4 million–35.9 million) people were living with HIV at the end of 2011. An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions. HIV/AIDS is the leading killer among the productive section of the population especially in Sub-Saharan Africa. In 2011 alone, HIV/AIDS killed 1.7 million people, 1.19 million of whom were living in sub-Saharan Africa (1).

AIDS related death is more common in the productive age, in Ethiopia about 90% of AIDS cases occurs in adults between ages of 15- 49years (2).

Ethiopia is one of the affected countries by the epidemic with an estimated adult prevalence of 1.5%; it has a large number of people living with HIV (approximately 800,000) and about 1 million AIDS orphan (3).

Ethiopian Demographic and Health Survey (EDHS) 2011 indicated that 1.5% of Ethiopian adults age 15-49 were infected with HIV and prevalence ranges from 0.9% in SNNP and 1.0% in Oromiya region to 5.2% in Addis Ababa and 6.5% in Gambella region. The disease is affecting the majority of the population; particularly the productive age group between 15-49 years, resulting in social and economic crisis, the loss of young adults would certainly affect the overall economic development.

1.2 Statement of the problem

Some studies revealed that the prevention practice of HIV (Abstinence, be faithful and condom use) among factory workers have variation results. The study conducted in Bahirdar textile factory workers revealed that condom utilization for HIV prevention practice was 54.1% and abstinence was 22.6 % (4).

Farm workers are particularly vulnerable to HIV/AIDS; not only do to their living and working conditions often place them at risk, but they are accorded relatively by way of rights and labour

protection. The high incidence of poverty, low knowledge of HIV/AIDS and poor living conditions makes the farm worker more vulnerable to the impact of HIV/AIDS (5).

Food and agricultural organization (FAO) has estimated that since 1985 more than 7 million agricultural workers have died from AIDS related disease in 27 severely affected African countries.

A prevalence of HIV/AIDS in the agriculture sector in South Africa was 3% amongst people between the ages of 15 and 49 years of age living on farms. The most susceptible sectors are generally those in which workers are frequently separated from their spouses and families, in which the bulk of the workforce consists of young to middle aged workers. Daily laborers in farm cultures are identified as at high risk to HIV/AIDS (5).

People's knowledge can influence their actions towards adopting risk-reduction behaviors such as abstinence, reduction in premarital sex, reduction in number of sexual partners, avoidance of non-spousal sex, and condom use during non-spousal sex. Knowledge of HIV transmission and prevention methods is also an important pre-requisite for health-seeking behaviors, utilization of HIV prevention, care and support services as well as fighting stigma and discrimination against people living with HIV (6).

The study conducted in farming industry in South Africa shows that farm workers in the area became a neglected and forgotten group as far as AIDS awareness programmes are concerned.

A study showed that there are low literacy levels among farm workers and this had an impact on the knowledge, attitudes and behavior of farm workers in HIV/AIDS prevention in the region. The study indicates that 81.3% of farm workers could differentiate HIV from AIDS and have knowledge about HIV(7).

Factors that influence HIV prevention practices are lack of access to appropriate information, lack of education and communication (EIC) materials on HIV, cultural attitudes and practices, belief in HIV myths, gender based violence, very few interventions from government and non-governmental organizations targeting the factory workers and lack of access to condoms. Daily workers in floriculture because of their young ages, less educated, lack of awareness about HIV prevention; frequently separated from their Spouses, parents, families and other related factors are at increased risk of HIV (5).

The prevalence of HIV/AIDS in the Holeta town was 5.2%. In this town there were 2356 peoples

living with HIV/AIDS; among these peoples 37.2% were youngest who employed as daily workers in floricultures (8).

1.3 Rationale of the study

Being floriculture is a new established industry in Ethiopia and study area in which a lot of the most economically productive segment of the population age groups employed there; it needs to conduct study on HIV/AIDS prevention practice and determinants. Therefore, this study has significant effect for improving strategies, programs and services related to prevention practices of HIV/AIDs for daily laborer at Floriculture industry. This study result also provide appropriate information for stakeholders, government and floriculture organization to make decision and implement appropriate intervention on prevention of HIV at floriculture to reduce the impact of HIV/AIDS on the daily laborers of the floriculture, floriculture product and country level at large.

2. Literature Review

A study conducted in Bahirdar revealed that among 416 factory workers, 71.6% of them correctly mentioned all three programmatically important HIV prevention methods. The study conducted in Bahirdar textile factory workers shows that condom utilization for HIV prevention practice was 54.1% and abstinence was 22.6 % (4).

A study conducted in Hawassa Town showed that among 438 daily workers youth condom utilization for HIV prevention practice was 24.9%, abstinence was 64.6% and being faithful was 66.2**%** (9).

A study conducted in Namibia showed that 14% of respondents be faithful to their partners and 13% of them abstinence. 87% of participants indicated that ABC (Abstain, Be faithful and condom use) is the best way to prevent HIV/AIDS (10).

2.1. HIV/AIDS Programs in the workplace

Workers in agricultural investment sites like that of flower plantation, spices farming, sugarcane plantations and cotton farming were most at risk population for HIV/AIDS(11). International Organization for Migration (IOM) conducted a survey on HIV vulnerability among migrant farm workers; the study revealed a lack of access to information, high levels of misconceptions about HIV and AIDS and high levels of reported risky sexual behavior. The study also showed that female workers were especially vulnerable to HIV infection. A large proportion of female farm workers reported poor knowledge and attitudes on HIV/ AIDS and they reported much higher levels of unsafe sexual practices than male workers (12).

The rate of new infection is increasing which poses a major impact in the workplaces. If the organizations did not establish HIV/AIDS programmes, employees would lack basic knowledge of HIV/AIDS and would continue infecting other people in their communities(13).

Workplace programs share information, influence attitudes, reinforce behavior change, and implement interventions with a workers. HIV/AIDS poses a serious threat to the owners of the workplace given that a productive and stable labor force is the key to profitable business and economic growth(14).

2.2 HIV/AIDS-Related Knowledge and Practice

2.2.1. Knowledge

A knowledge of how HIV is transmitted is crucial to enable people to avoid HIV infection, especially for young people, who are often at greater risk because they may have shorter relationships and thus more partners or may engage in other risky behaviors (11).

Study conducted by Stellenbosch University on agriculture workers knowledge on HIV/AIDS shows 70% of workers know how HIV is transmitted (7).

2.2.2. Practices

A study conducted in Bahirdar textile factory workers showed that condom utilization for HIV prevention practice was 54.1% and abstinence was 22.6 % (4).

A study conducted in Namibia showed that 14% of respondents be faithful to their partners and 13% of them abstinence. 87% of participants indicated that ABC (Abstain, Be faithful and condom use) is the best way to prevent HIV/AIDS (10).

A study conducted on farm workers in New York found that 42% had last tested for HIV more than two years ago (15).

A study conducted by Stellenbosch University on farm workers indicated that 81.35 of the study participant believe that it is better if a person know his/her HIV status; while 17.4% respondents believe that it is not necessary to know their HIV status. The same study revealed that 76% of respondents always use condom as the main preventive methods during sexual intercourse but 18.5% didn't believe condom as preventive methods of HIV/AIDS. 93.4% of the respondents agreed that condom should be supplied in the farm culture. The ABC strategy of abstinence, being faithful and correct and consistence use of condoms has become a key component of programmes to modify behavior (7).

A KAP survey conducted in China in 2008 shows nearly 30% did not know how to use condoms, only 19% would use a condom if they had sex with a new partner. Nearly 11% of respondents had sex with people who were not their spouse, girl friend or boy friend during the past six months. Total number of 42% of those respondents had not used condoms. More than 48% of respondents thought they could contract HIV from a mosquito bite (16).

2.3 Risk factors for HIV/AIDS expansion in farm culture.

Many behavior related risk factors for the epidemic include: A practice of multiple concurrent partnerships; low income, age, early initiation of sexual practices; low and inconsistent condom use; mobility/migration of population. due to the current development investments there are high number of seasonal and migrant laborers in different parts of the country. Separation from their families for a prolonged time increases the likelihood of risky sexual practices (17).

Characteristics of farm workers' migrant lifestyle can contribute to an increased risk of contracting HIV. These factors include poverty, low income, sub-standard housing, limited access to healthcare, mobile lifestyle and social isolation (18).

A study done on migrant farm workers at risk for contracting HIV/AIDS: including sex with prostitutes, inconsistent condom use, and alcohol and drug abuse (15).

A common behavior that puts farm workers at risk for contracting HIV/AIDS is having unprotected sex with prostitutes (19).

A study of migrant male farm workers in San Diego, California found that 70 percent of sexually active farm workers reported sex with a sex worker, of which only 23 percent reported using condoms (20).

A 2003 study done on Mexican migrant women farm workers found that of respondents who had two or more sexual partners, only 25 percent reported using a condom during sex (21).

A study conducted in Kombolcha town among daily laborers revealed that condom utilization for HIV prevention practice was 35% (22).

A study done in New York State indicates multiple sex partners and prostitutes present the greatest risk among farm workers. Lack of consistent condom use; use of alcohol and drug place workers at risk for HIV transmission (15).

Conceptual framework

There are several factors that affect daily laborers practice towards HIV/AIDS prevention. Socio economic factor, new social environment, individual factors, sexual behaviors and non sexual behavior can affect practice of daily laborers towards HIV prevention.

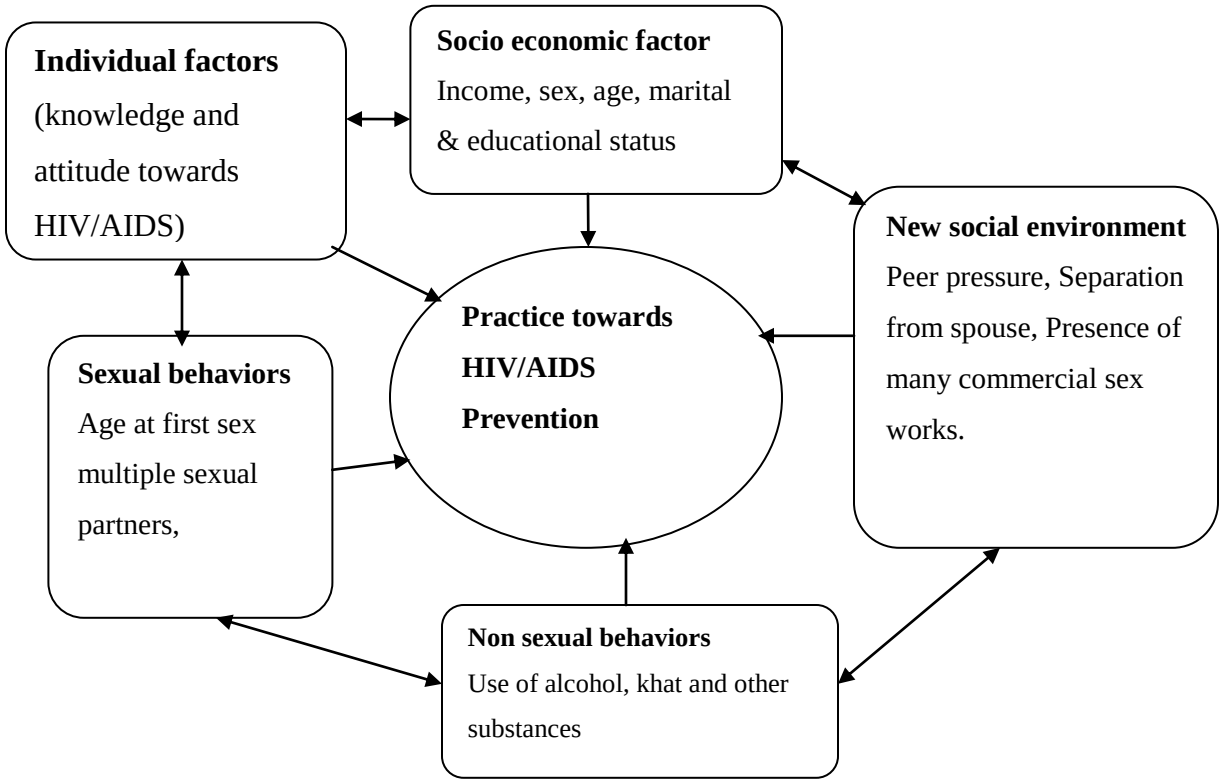


Figure 1: -Conceptual framework for HIV prevention;

Source: Adopted by principal Investigator and some of it from literature (22).

3. Objectives

3.1. General Objective

To assess HIV Prevention Practice and determinant factors among daily laborers of Holeta floriculture Oromia Special Zone Surrounding Finfine, Ethiopia.

3.2. Specific objectives

1) To assess daily workers knowledge towards HIV/AIDS prevention and mode of transmission among daily laborers of Holeta floriculture.
2) To determine the magnitude of HIV prevention practice among daily laborers of Holeta floriculture.
3) To describe factors influencing HIV prevention practice among daily laborers of Holeta floriculture.

4. Methods

4.1. Study design

A cross-sectional study was conducted using both quantitative and qualitative methods between March and April 2013, facility based cross-sectional data collection was conducted using structured and pre-tested interviewer-administered questionnaire and supported by qualitative design involved Focus group discussions (FGD).

4.2. Study area

This study was conducted in Oromia Regional State, Oromia Special Zone Surround Finfine Holeta town. The town is bounded by Walmera woreda in all direction except in the west by Ejere woreda. The Town has a total population of about 45,240 of which 7283 are daily laborers enrolled in 12 floricultures and different factors according to 2005 E.C town annual report. The town has two health centers, five health posts and eighteen private clinics.

4.3. Source population

The source population for the study was all daily laborers found in Holeta town floriculture.

4.4 Study population

The study population was all daily laborers who fulfill the inclusion criteria in eight randomly selected floriculture of Holeta town.

4.5 Inclusion and Exclusion criteria

Inclusion: Daily laborers whose age is between15-49 years. Who have worked there for more than 6 months in the study area; that were mentally and physically capable of being interviewed.

Exclusion criteria: Daily laborers who are critically sick during data collection, those who are unable to hear.

4.6. Sample size determination

1. Sample size for quantitative study

The sample sizes for the first two specific objectives were determined using the single proportion sample formula. With the assumptions of margin of error (d) = 5%, 95% CI for Zα/2 = Critical value =1.96, and 10% non response rate and design effect 1.5)

Where, n= required sample size

i. The proportion of knowledge on HIV/AIDS among farm workers: 81% (7).

$$n = \frac{(Z\ \alpha/2)^2\ p\ (1-p)}{d^2} = \frac{(1.96)^2 x\ 0.81(0.19)}{(0.05)^2} = \frac{3.8416 * 0.1539}{0.0025} = 236.5 \approx 236$$

236 x1.5 (design effect) = 354+ (354*10%) non-response rate = 389

ii. By the same procedure the sample size for magnitude of HIV prevention practice by considering the average proportion among workers 52% (9). the above assumptions are kept similar and the calculated sample size is 633

iii. Sample size for the third Specific objective

Using EPI Info version; a two proportion equation was used with the following assumption

Where $\propto =$ the level of significance=0.05 $\mathbf{Z}_{1-\beta}$=80% is the power of the study to determine; Confidence level for 95% of certainty: 1.96; Odd ratio = 2.0; Ratio of exposed to unexposed: 1:1

The proportion of knowledge on HIV/AIDS among floriculture farm workers: 81% (7). This is assumed in the general population. This was taken due to lack of other data done in floriculture on factors which influencing HIV/AIDS prevention practice. The calculated sample size with 10% non response rate is 649**.** The final sample size for this study is considered 649, which is the largest to satisfy all specific objectives.

2. Sample size for qualitative study

This help to fill the gaps which is inadequately addressed by the quantitative study. A Focus group discussion with laborers representative conducted at three purposely selected floricultures with eight participants and a total of 24 participants having experience of more than one year are selected to get detailed information. The number of focus group discussion (FGDs) was determined based on information saturation.

4.7. Sampling Procedures

For quantitative data

The study was conducted in eight floricultures found in Holata town. To determine the study subjects to be included in the study, at first stages, eight out of twelve floricultures were selected by simple random sampling. Secondly, the sampling frame (list of daily laborers) was obtained from salary list rooms of the respective floricultures. Third, the number of daily laborers to be included in to the study (sampled) was determined proportionally in accordance with the total number of daily laborers in the sampling frame of the selected floricultures. Finally, the respondents were selected by simple random sampling from the framed list.

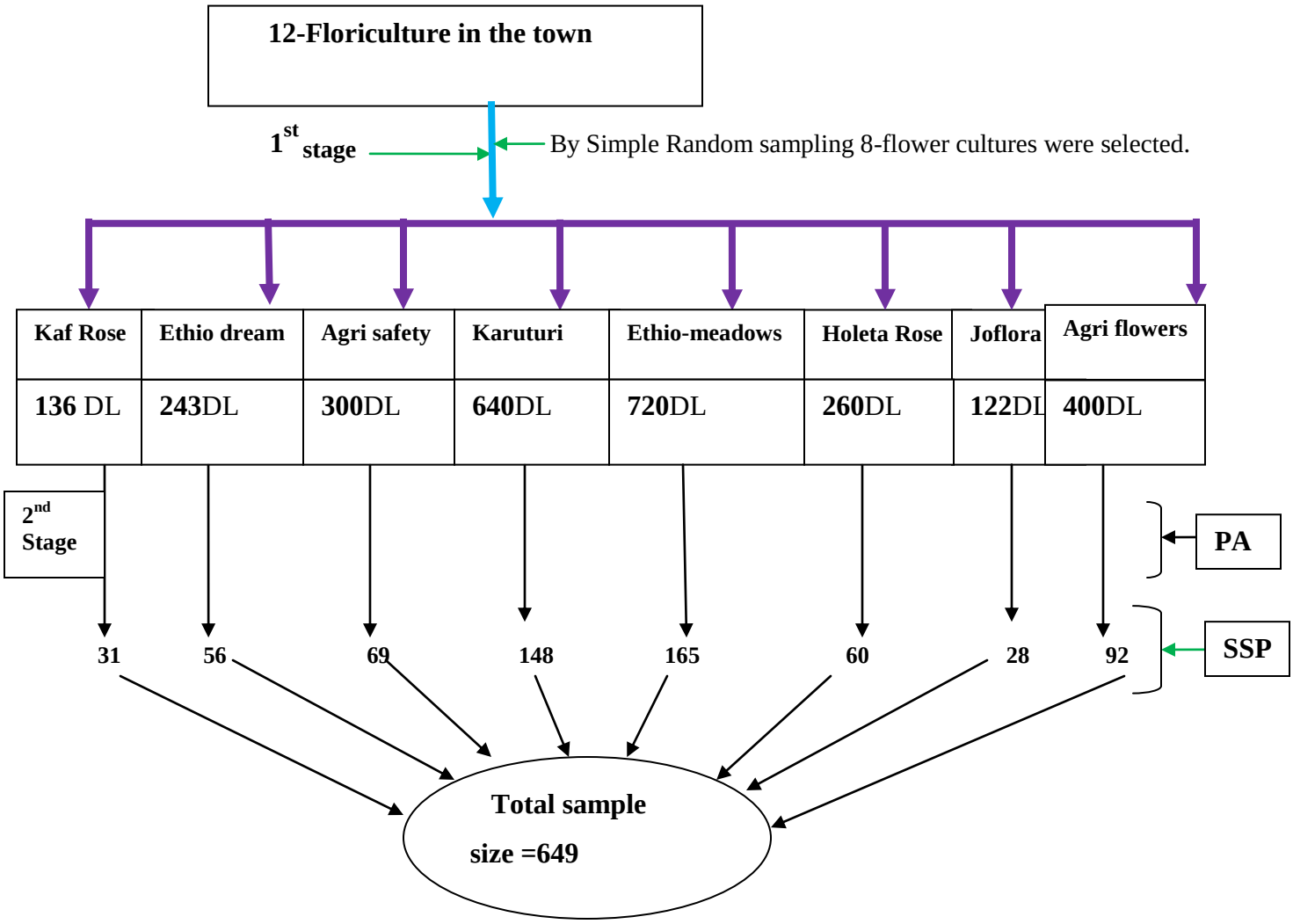
For qualitative data

A total of three focus group discussions two females groups and one males group with 24 discussants were made among purposively selected participants who have worked in the respective floricultures for more than one years and able to forward necessary information in relation to the objective of the study were selected; with keeping the homogeneity of discussants. In this study the discussion centered on daily laborers general knowledge towards mode of HIV/AIDS transmission and prevention methods, attitude of daily laborers towards HIV/AIDS, prevention practice of daily laborers, and factors that influence practice of HIV prevention in floriculture were assessed.

Table I. Calculated sample size using proportional sampling according to the population size of each flower cultures among daily laborers Holeta town, March, 2013.

No	Name of flower cultures	Population size				Sample size			
		TP	**PR**	**SR**	**GR(har)**	**PA**	**PR**	**SR**	**GH**
1	Kaf Rose	**136**	51	18	67	**31**	12	4	15
2	Ethio dream	**243**	92	32	119	**56**	21	7	28
3	Agri Safety	**300**	124	47	129	**69**	28	11	30
4	Karuturi	**640**	260	92	288	**148**	60	21	67
5	Ethiopian Meadows	**720**	268	112	340	**165**	61	26	78
6	Holeta Rose	**260**	100	36	124	**60**	23	8	29
7	Joflora	**122**	51	15	56	**28**	12	3	13
8	Agri flowers	**400**	119	78	203	**92**	27	18	47
	Total	**2821**	**1065**	**430**	**1326**	**649**	**244**	**98**	**307**

NB: **TP**=Total population size; **PR**=Packing Room; **SR**= Spraying Room; **GH** (harv.)=Green house Room (harvesting Room); **PA**=Proportionate allocation



KEY: DL=Daily Laborers

PA=proportionate allocation.

SSP= Sampled study participant

Figure 2.Schematic representation of sampling procedures among daily laborers in Holata towns flower cultures, March, 2013.

4.8. Data collection procedure

1. Quantitative data collection methods

A Standardized and structured questionnaire was developed based on previously available information, and adapted to local situation with certain modification. The questionnaire was prepared initially in English and then translated into local language (Afan Oromo) for interview. The questionnaire was gathered data on the following areas: 1) Socio-demographic characteristics; 2) Knowledge and practice of workers towards HIV/AIDS prevention 3) means of HIV transmission and prevention methods 4, Factors that influence prevention practice. Using structured, pre-tested, interviewer administered questionnaire prepared in Oromic language; Data was collected by two sociologists and four health professional degree holders through face to face interviews and closely monitored by one health officer and one environmentalist as supervisors and principal investigators.

2. Qualitative data collection The qualitative data were collected by using focus group discussion guides with probing questions prepared in oromic language, the principal investigator and supervisors moderated the discussions and note was taken by principal investigator and facilitators; the members of each FGD were selected purposively by the Principal Investigator and the supervisors. Three focus group discussions (FGDs) each containing 6 to 8 individuals was conducted using semi-structured, open-ended questionnaires in order to provide more information about the knowledge and practice of daily workers towards HIV/AIDS prevention in the study area. Each FGD session was conducted for one to one and half hour.

4.9. Variables

1) **Dependent variables:**

- Prevention Practice of HIV/AIDS(Abstinence, Be faithful, Condom use)

2) Independent variables: Socio-demographic variables (age, sex, marital status, ethnicity, religion, educational status, residence) socio-economic variable (income), non-sexual behaviors (chewing, drinking alcohol, smoking) and knowledge of daily laborers towards HIV prevention, source of information about HIV/AIDS, Separation from spouse, age at first sexual intercourse, number of sexual partners and sources of condom.

4.10. Operational definitions

Knowledge about HIV transmission and prevention: respondents were considered to be knowledgeable about HIV transmission and prevention if they scored points equal to or more than the mean score out of the six and five items transmission and prevention questions respectively (Annex 6).

Not-knowledgeable about HIV transmission and prevention: those study participants who scored less than the mean score out of the six and five items transmission and prevention questions respectively (Annex 6).

Prevention Practice of HIV/AIDS- regular utilization of HIV prevention interventions (Abstinence, Be faithful, Condom use) as part of their behavior.

Condom use: Consistent and correct utilization of condom during sexual intercourse with sexual partners except spouses.

4.11. Data management

quantitative-All questionnaires and records were checked for completeness by data collectors and supervisors before leaving the area where data collection has done and then the data was coded by principal investigator and entered in to Epi info version 3.5.3 computer software. The data was entered through giving unique and similar questionnaire ID number on questionnaire of each respondent hardcopy and soft copies entered to the computer. Before exporting the data to statistical package for social sciences (SPSS) the data was checked and cleaned for computer consistency through running frequencies, sorting the data in ascending order and identifying the missing or mistyped variables. The variable entered was compared with the hardcopy and corrected for any inconsistency. After such cleaning for each variable the data was exported to SPSS version 16 for further analysis.

Qualitative-The discussions were made with the local language and the data was organized, coded ,transcribed and translated into English, and then manipulated manually by grouping the ideas into similar thematic sets.

4.12 Data Analysis

Analysis of quantitative data: Descriptive statistic such as frequency and percentage were used to present data. The result was presented by cross tabs, simple frequency tables and figures. Binary logistic method was used to show association of each factor with prevention practice using OR with 95% CI. Variables which have a p-value of at least 0.25 in binary logistic regression were included in the multivariate analysis to avoid excessive number of predisposing factors which more strongly linked with prevention practice. Multivariate analysis was done for socio demographics and others factors; the final model was used. Independent effect of each variable in the multivariate analysis was seen after controlling for covariates; finally the result showing the crude and adjusted odds ratio (AOR) was used to express the result of analysis.

Analysis of qualitative data: Thematic analysis was used for the analysis of the results of focus group discussion. Focus group discussion was transcribed word by word after repeated listening. The transcribed data was then translated to English language from Afan-Oromo language. The coded data was categorized according to the similarities of the meanings of codes. The categorized data then was given theme that expresses the meaning of each category. Finally each theme was concluded by at least one respondents saying and analyzed manually using the thematic area analysis approach.

4.13 Data quality management

Data collection instrument was pretested on 32 respondents in non selected adjacent district before data collection take place. The data collectors and supervisors were trained for two days on the data collection process (tools questioning techniques and ethical issues). The principal investigator with supervisor supervised the data collection process routinely and the correction was made at the spot if there is any un-clarity on questionnaire handling and questioning process. Filled questionnaire was checked for completeness, accuracy and consistency daily. Every morning the data collectors, supervisor and principal investigator discussed on the previous day data collection process and any un-clarity faced was clarified before going to the daily work and when mistakes were found it was returned to data collectors for correction.

4.14. Ethical considerations

The ethical approval and clearance was obtained from the AAU school of public health ethical review committee after reviewing the proposal. Official letters of support were obtained from the AAU school of public health and written to the Oromia Special Zone Surround Finfine Health Department and this official written letter was distributed to Holeta town health office, Investment office, Labor and Social affair Office respectively. A written permission was obtained from the respective offices and a letter of support was written to all respective head of the selected floricultures.

The information sheet and consent were provided for respondents to read for those who can read and the interviewer was read the paper for those respondents who cannot read. Before each interview, the aim of the studies; possible benefit; rights of respondents, confidentiality and side effects (if any) were clearly explained for study participants. Each respondent was assured that the information provided was confidential and used only for the purpose of research. The information obtained from the respondents was identified by their code numbers. The study was conducted entirely on voluntary bases. Informed consent was obtained from all study subjects after the explanation of the purpose of the study. The study has not any risk and no direct benefit to the participants for their participation. Respondents had full right to withdraw themselves from the study any time or can refuse to respond to some of the questionnaires. To provide more privacy for respondents the interview took place at one time with respondent alone.

4.15. Dissemination of study results

The thesis will be presented to the School of Public Health as partial fulfillments of the requirements for the Masters Degree in Public Health. The finding obtained from this project is in progress to submit for peer reviewed journals for publication and after approved by approval committee the abstract will be disseminated to the study Floriculture offices and Town Health Office, for intervention action.

5. Results

5.1 Socio- demographic characteristics of the study participants

A total of 649 daily laborers were participated in the study, with 100% response rate. Females account 71.8% of the study subjects and males 28.2%. With respect to age 65% of the study participants were in the age group 15 to 24 years with a mean age of 23.7(± 6.7) years. The average monthly income of daily laborers was 524 Ethiopian birr; around seventy seven percent were Orthodox Christians by religion. With respect to ethnic group, 85% were Oromo and 12.1% Amhara. Regarding to educational status, 26.7% were alliterated, 48.5% attend primary education and 21.3% were secondary and above.

Three hundred (53.9%) of the respondents were residing in urban areas while the rest 299(46.1%) were daily laborers coming from rural areas (Table 1).

Table1: Socio-demographic characteristics of respondents in Holeta floriculture, Ethiopia March 2013

Characteristics	**Frequency(n=649)**	**Percent (%)**
Sex(649)		
Male	183	28.2
Female	466	71.8
Age(649)		
15-24	422	65.0
25-34	154	23.7
35-49	73	11.2
Religion(649)		
Orthodox	502	77.3
Protestant	130	20.0
Others	17	2.7
Ethnicity(649)		
Oromo	551	84.9
Amhara	79	12.1
others	19	3
Educational Status(649)		
Can't read and write	173	26.7
Can read and write	23	3.5
Primary education	315	48.5
Secondary and above	138	21.3
Marital Status(649)		
Unmarried	387	59.6
Married	233	35.9
Others	10	19
Monthly income(649)		
<500	348	53.6
≥500	301	46.4
Having radio/TV(649)		
Yes	361	55.6
No	288	44.4
Alcohol drinking(649)		
Yes	184	28.4
No	465	71.6
Khat chewing(649)		
Yes	39	6.0
No	610	94.0
Smoking(649)		
Yes	30	4.6
No	619	95.4

5.2 Knowledge status of respondents towards mode of HIV/AIDS transmission

With regard to knowledge on mode of HIV transmission majority of the respondents,637(98.1%) reported that HIV is transmitted through sexual intercourse, blood contact were 636 (98 %), using contaminated instruments were 642(98.9%) and mother to child during pregnancy, delivery, and breast feeding were 520(80.1), 541(83.4%), 565(87.1) respectively(Fig.3).

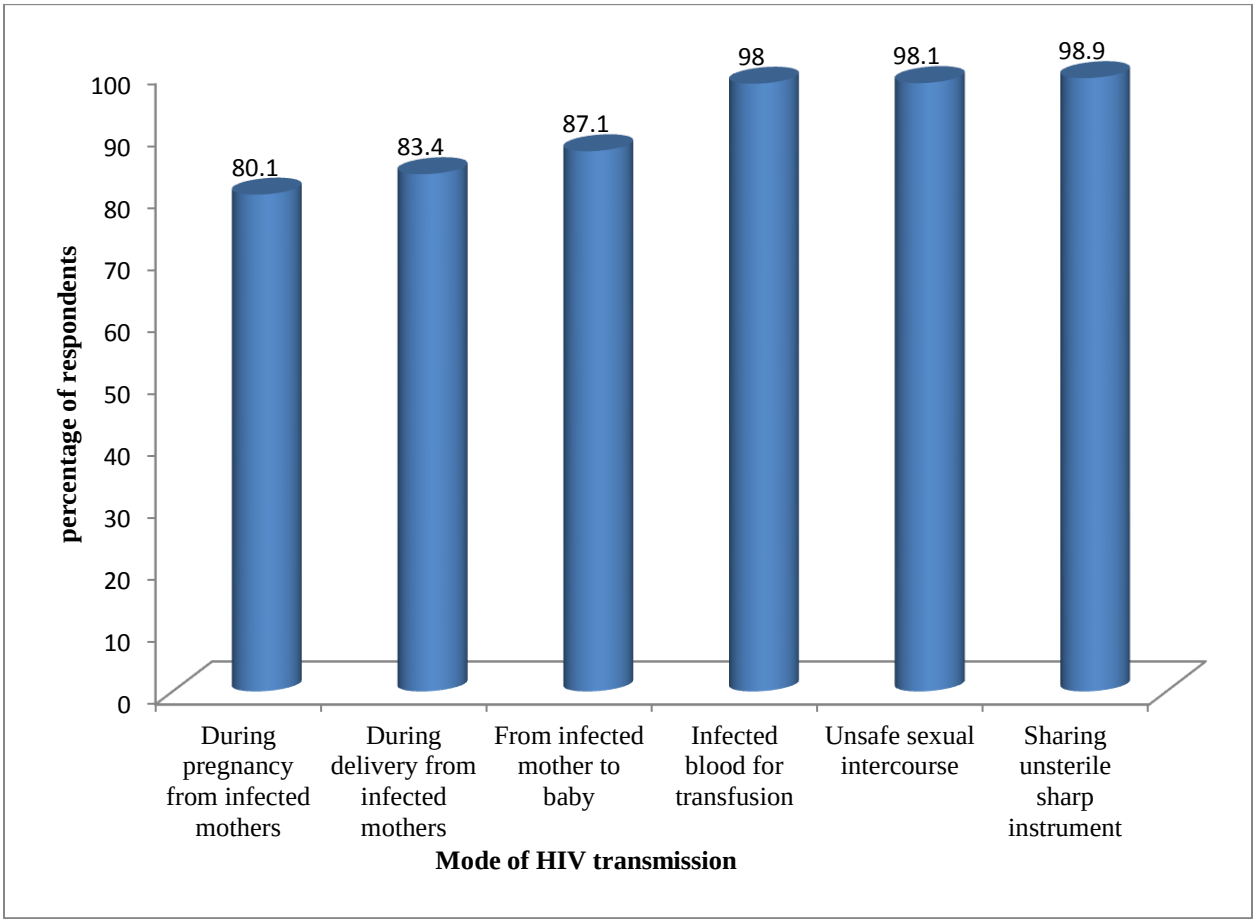


Figure 3:- Knowledge status of respondents about mode of HIV/AIDS transmission among daily laborer in floriculture, Holata town Ethiopia, March, 20

5.3 Knowledge Status of daily laborers towards HIV/AIDS prevention methods

With regard to knowledge on HIV prevention methods majority of the respondents 643(99.1%) reported that HIV was prevented by avoiding using of contaminated sharp instruments , abstaining from sexual intercourse 642(98.9%), avoiding using unscreened blood for transfusion, using condom correct and constant and having one uninfected faithful sexual partner were 633(97.5%), 617(95.1%), 612(94.3%) respectively(Fig.4)

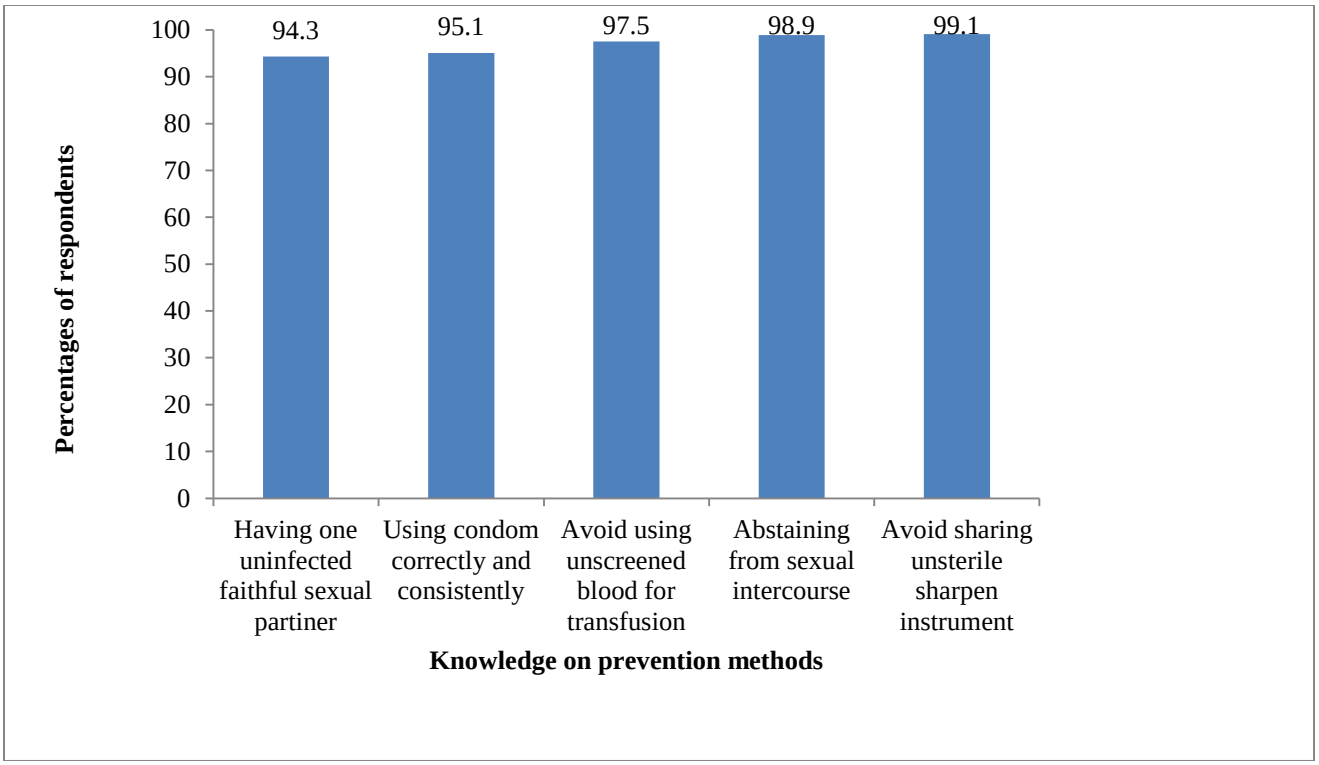


Figure 4:-Knowledge status on HIV/AIDS prevention methods among daily labors of Holata floriculture, Ethiopia March, 2013

Generally 629(97%) of daily laborers were knowledgeable on the correct mode of HIV/AIDS transmission and 591(91%) were knowledgeable on HIV/AIDS prevention methods.

5.4 Magnitude of prevention practices

In this study, the proportion of respondents towards prevention practice of HIV abstain from sex before marriage 32.4%, be faith full to one partner 54.2% and from sexually active daily laborers 35.6% used condom as a preventive methods.

Odds of abstinence among laborers whose their income <500 birr were less by half than those whose their income ≥500 laborers AOR= 0.46; 95% CI (0.29,0.74), Odds of abstinence among daily laborers resided urban were 1.8 times less likely than those lived in rural AOR=0.58; 95% CI (0.37,0.93); Odds of abstinence among age group 25-34 years were four times less likely than 15-24 years AOR=0.24;95% CI (0.11,0.53); Odds of abstinence among laborers attended primary education 1.6 times than those who couldn't read and write. AOR=1.59; 95% CI (0.78, 3.22). Odds of abstinence among daily laborers drink alcohol were 3.5 times less likely than those didn't drink AOR=0.29; 95% CI (0.17,0.49); (Table 2)

Table 2: Final logistic regression analysis of factors influence abstinence among daily workers in Holeta floricultures, Oromia region, Ethiopia March 2013

	Abstinence (n=649)		**OR(95%CI)**	
Variables	**Yes**	**No**	**Crude**	**Adjusted**
Sex				
Male	57	126	0.93(0.64,1.34)	0.73(0.45,1.20)
Female	153	313	1.00	1.00
Monthly income				
<500	136	212	0.51(0.36,0.71)	0.46(0.29,0.74)**
>=500	74	227	1.00	1.00
Age group				
15-24	201	221	1.00	1.00
25-34	9	145	0.07(0.03,0.14	0.24(0.11,0.53)**
35-49	0	73		
Educational Status				
Can't read and write	22	151	1.00	1.00
Can read and write	3	20	1.03(0.28,3.75)	0.85(0.14,5.03)
Primary education	133	182	5.00(3.00,8.30)	1.59(0.78,3.22)**
Secondary and above	52	86	4.15(2.30,7.30)	1.27(0.57,2.85)
Residence				
Urban	102	248	0.73(0.52,1.00)	0.58(0.37,0.93)*
Rural	108	191	1.00	1.00
Having radio/TV				
Yes	131	230	1.50(1.08,2.11)	1.51(0.94,2.43)
No	79	209	1.00	1.00
Drinking alcohol				
Yes	31	153	0.32(0.21,0.50)	0.29(0.17,0.49)**
No	179	286	1.00	1.00
Smoking				
Yes	10	20	1.05(0.48,2.28)	1.31(0.50,3.47)
No	200	419	1.00	1.00

P-value< 0.05 = * p-value < 0.001 = **

Odds of be faithful among males laborers were less by 2 than female laborers AOR= 0.49; 95% CI (0.29, 0.81), Odds of be faithful among age group 25-34 years were 2.5 times less likely than 15-24 years AOR=0.44; 95% CI (0.25, 0.76); Odds of be faithful among daily laborers drinking alcohol were 3.3 times less likely than those didn't drink AOR=0.30; 95% CI (0.19, 0.49) (Table 3)

Table 3: Final logistic regression analysis of factors influence be faithful among daily workers in Holeta floricultures, Oromia region, Ethiopia March 2013.

	Be faithful (n=438)		**OR(95%CI)**	
Variables	**Yes**	**No**	**Crude**	**Adjusted**
Sex				
Male	48	77	0.40(0.26,0.62)	0.49(0.29,0.81)*
Female	190	123	1.00	1.00
Monthly income				
<500	128	82	0.60(0.41,0.87)	0.75(0.48,1.16)
>=500	110	118	1.00	1.00
Age group				
15-24	127	92	1.00	1.00
25-34	66	80	0.60(0.40,0.91)	0.44(0.25,0.76)*
35-49	45	28	1.16(0.70,2.00)	0.70(0.35,1.37)
Marital Status				
unmarried	89	90	1.00	1.00
married	137	93	1.5(1.01,2.21)	1.21(0.72,2.04)
Others	12	17	0.71(0.32,1.58)	0.794(0.312,2.02)
Educational Status				
Can't read and write	92	60	1.00	1.00
Can read and write	11	9	0.80(0.31,2.04)	1.04(0.36,3.03)
Primary education	97	83	0.76(0.49,1.18)	1.21(0.69,2.12)
Secondary and above	38	48	0.52(0.30,0.88)	1.13(0.56,2.27)
Residence				
Urban	110	138	0.39(0.26,0.57)	0.32(0.20,0.50)**
Rural	128	62	1.00	1.00
Having radio/TV				
Yes	106	123	0.50(0.34,0.73)	0.58(0.37,0.91)
No	132	77	1.00	1.00
Drinking alcohol				
Yes	51	102	0.26(0.17,0.40)	0.30(0.19,0.49)**
No	187	98	1.00	1.00
Smoking				
Yes	1	19	0.04(0.01,0.30)	0.20(0.24,1.70)
No	238	181	1.00	1.00

P-value< 0.05 = * **p-value < 0.001 = ****

Odds of condom utilization among laborers whose their income <500 birr were less by half than those whose their income ≥500 laborers AOR= 0.49; 95% CI (0.29,0.83), Odds of condom utilization among daily laborers resided urban were three times than those lived in rural AOR=2.976; 95% CI (1.683,5.262); Odds of condom utilization among age group 35-49 years were four times less likely than 15-24 years AOR=0.26;95% CI (0.09,0.70); Odds of condom utilization among married was four times less likely than unmarried; AOR=0.27; 95% CI (0.15,0.49); and Odds of condom utilization among laborers attended secondary and above 2.76 times than those who couldn't read and write. AOR=2.76; 95% CI (1.35, 5.62) (Table 4)

Table 4: Final logistic regression analysis of factors influence condom utilization among daily workers in Holeta floricultures, Oromia region, Ethiopia March 2013

	Condom utilization (n=438)		**OR(95%CI)**	
Variables	**Yes**	**No**	**Crude**	**Adjusted**
Sex				
Male	62	63	2.29(1.50,3.51)	1.26(0.69,2.30)
Female	94	219	1.00	1.00
Monthly income				
<500	55	155	0.45(0.30,0.67)	0.49(0.29,0.83)**
>=500	101	127	1.00	1.00
Age group				
15-24	100	119	1.00	1.00
25-34	48	98	0.58(0.38,0.90)	0.84(0.45,1.58)
35-49	8	65	0.15(0.07,0.32)	0.26(0.09,0.70)*
Marital Status				
unmarried	99	80	1.00	1.00
married	47	183	0.21(0.13,0.32)	0.27(0.15,0.50)*
Others	10	19	0.43(0.19,0.97)	0.46(0.15,1.42)
Educational Status				
Can't read and write	25	127	1.00	1.00
Can read and write	9	11	4.16(1.56,11.07)	4.51(1.52,13.30)
Primary education	71	109	3.3(1.96,5.58)	1.47(0.80,2.73)
Secondary and above	51	35	7.4(4.0,13.60)	2.76(1.35,5.62)**
Residence				
Urban	121	127	4.22(2.71,6.57)	2.98(1.68,5.26)**
Rural	35	155	1.00	1.00
Having radio/TV				
Yes	102	127	2.31(1.54,3.46)	1.44(0.84,2.47)
No	54	155	1.00	1.00
Drinking alcohol				
Yes	80	73	3.00(1.99,4.55)	1.83(0.10,3.20)
No	76	209	1.00	1.00
Smoking				
Yes	15	5	5.89(2.10,16.55)	0.39(0.10,1.58)
No	141	277	1.00	1.00

P-value< 0.05 = * p-value < 0.001 = **

5.7 Focus group discussion results

5.7.1. Knowledge of HIV/AIDS

The findings of the FGDs clearly indicate that all participants of the target groups knew what HIV/AIDS was, how it could be transmitted and how it could be prevented. Almost all participants of the target groups claimed that these days they had basic knowledge about the modes of transmission and prevention of HIV/AIDS.

Most of the daily laborers discussants mentioned that HIV is the main health problem in the town; One discussant from Ethio- dream floriculture described AIDS as: *"a fire in desert, fire in desert is very dangerous which burn you at distant, AIDS was also too"*

Other discussant added that AIDS is "Yee chika wusti Eshok which means a hidden, dangerous and difficult disease" because of it's not known through observation except blood test, non curable and with no drugs to cure. Another female discussant, age 26, said; "*HIV/AIDS is indiscriminating transmittable disease which has no demarcation and border and which affects all human races with regardless of sex, race, color and age.*'' Furthermore, the participants were knowledgeable about transmission and spread of HIV. Most of them knew that HIV is transmitted through unprotected Sexual intercourse, using unsterilized equipments, multiple sexual partners, mothers who have HIV in their blood to their child and blood contact with person who live with the virus.

Some of the group members agreed that HIV can be transmitted by mosquito bite while most of the group members disagreed. Except few; most of the discussants agreed that HIV is not transmitted by using public swimming pool.

5.7.2 Prevention Practice

Majority of the respondents stated that use of condom, abstinence, being faithful to one partner, voluntary counseling and testing before marriage is the only prevention methods for HIV.

Some of the daily laborers discussants agreed that, even though; we know means of HIV prevention we didn't apply the practice.

Condom utilization

All discussant were aware of condom. Some of the discussants said that, they knew about condom but didn't consider the use of condom as acceptable means of prevention because of perceived reduction in sexual pleasure. According to the participants, some of the reasons for

non-use of condom were perceived reduction in sexual pleasure, dislike using, shame to buy, lack of utilization, fearing that condom may break and the likes. Consistent and appropriate use of condom, Abstain from sex before marriage and /or have marital VCT, Be faith full to one partner and avoid multiple sexual relations, were acceptable means of HIV prevention.

24 years old male from the Rose flowers explained about the use of condom by Saying; "*If condom is used correctly and consistently it prevent HIV, unwanted pregnancy, and I am practically used condom, it is very effective, some people exposed to sexually transmitted disease, since these people are not using condom properly''*

A 21years old female respondent said that, *I do not have full confidence using condom can prevent HIV, but if I have sex with different people, I will use it. Somewhat it help me to decrease being fear of acquiring HIV and unwanted pregnancy*.

Other girl discussants also said "*In our culture males are dominant because of this most of the time the decision for condom use is made by males**,** this makes females not to use condom*." Another issue raised in the discussion was from where condom obtained, all groups reported the sources of condom distribution were from shop, health institution, hotels and pharmacy. Majority of participants agreed that condom should be distributed in floriculture area.

5.7.3 Factors influence Prevention practice of HIV in floriculture

The discussants mentioned many factors that influence prevention practice in floriculture.

These factors were either, illiteracy, economical problems, lack of awareness in the working areas, Separation from spouse, early sex practice, alcohol drinking, chewing khat, peer pressure, place of reside, multiple sexual partners, lack of both knowledge and attitude towards mode of HIV/AIDS prevention and/or willingness of individual to practice prevention of HIV.

One female daily laborer said that, especially during night/on weekend males were eager to practice drinking alcohols and if they drink over they become too intoxicated, as result they go to exercise unprotected sex, at this time there is chance of acquiring HIVAIDS. Therefore alcohol is one of the factors which influence prevention practice.

6. Discussions

The study has tried to assess daily laborers knowledge towards HIV prevention, way of transmission, magnitude of HIV prevention practice, and factors influencing HIV prevention practice.

In this study 629 (97%) of daily laborers were knowledgeable on mode of HIV transmission. The figure in knowledge were in agreement with the study conducted by Stellenbosch University among agriculture workers on mode of HIV/AIDS transmission 70%(7).The difference of figures may be due to time gap that is, since 2009 there could be improvement in awareness creation, in the study area population.

In addition to the above point 591(91%) of daily laborers were knowledgeable on means of HIV prevention. Most of the respondent correctly mentioned the mode of HIV/AIDS transmission which were sharing unsterile sharp instrument 642(98.9%), unsafe sexual practice 637(98.1%), using unscreened blood for transfusion 636(98%), during delivery 541(83.4%) and by breast feeding 565(87.1%). And according to the qualitative study (FGD) most of the participants knew about HIV/AIDS, the route of transmission and its prevention.

This study revealed that 32.4% of daily laborers were used abstain as prevention practice of HIV. The finding in abstain were not comparable with the study conducted in Bahirdar textile factory workers which was 22.6 % (4). The difference of figures may be due to time gap that is, since 2005 there could be improvement in awareness creation in the study area population. The study also revealed that 54.6% of daily laborers be faith full to one partner in order to prevent HIV/AIDS. This figure also in line with the study conducted in Hawassa Town among youth daily laborers 66.2%(9). Difference of figures may be due to the difference of study sites that is somewhat high figures were from study done in Hawassa town this might be due to improvement in awareness creation about HIV/AIDS.

In this study, from sexually active daily laborers 155(35.6%) were used condom as a preventive methods. The figure in condom utilization was relatively similar when compared with other study conducted in Kombolcha town among daily workers towards HIV/AIDS prevention 35%(22). Whereas it is in agreement with the study conducted by Stellenbosch University among agriculture workers in which 76% of workers used condom during sexual intercourse (7). Difference of figures may be due to the difference of study sites that is high figures were from

studies done outside the country. This showed that even though; the daily laborers were knowledgeable about condom there is an extreme gap to utilize it during sexual intercourse. This finding is supported by the qualitative (FGD) results and is also in line with a study done in South Africa(12).

The study indicated that 638(98.3%) of daily laborers understood HIV /AIDS is a transmittable and 593(91.4%) of respondents understood AIDS is a preventable disease with no cure and vaccine is well known by majority of the respondents. These indicate that daily laborers already understood the basic facts of HIV/AIDS.

The study showed that income, age, educational status, residential areas, marital status, alcohol drinking were important factors significantly associated with prevention practice of HIV/AIDS in floriculture by daily laborers.

Daily workers who attended primary education abstain from sex 1.6 times more likely than those who couldn't read and write and those who attend secondary and above used condom 2.76 times more likely than those who couldn't read and write. This showed that education influence prevention practice of daily laborers positively because of an increased awareness which contributes and empowers laborers decision to use abstinence and condom utilization as HIV prevention practice. This finding is supported by the qualitative results (FGD).

Daily laborers whom their age were between 25 to 34 years olds 0.24 times less likely utilized abstinence as prevention practice than those who were youth, this may be due to the facts that between the ages 25 to 34 most of the respondents had husbands/wives in which they never abstain.

Daily laborers whom their age were between 35 to 49 years olds 0.26 times less likely used condom as prevention practice than those who were youth, this may be due to the facts that between the ages 35 to 49 most of the respondents had husbands/wives in which they be faith full to one partner and avoid multiple sexual relations. While in case of youth they are at sexually active stage, hence; may had sexual intercourse with multiple sexual partners and used condoms to prevent HIV infection.

Daily laborers whom their age were between 25 to 34 years olds 0.44 times less likely be faith full than those who were youth.

From the finding economical problem was one of the factors that influence prevention practice among daily laborers in floricultures. Hence; daily laborers whose their monthly income were less than five hundred 0.46 times less likely abstained and 0.49 times less likely utilized condom as HIV prevention practice respectively than who's their income were above or equal five hundred. Daily laborers who were lived in urban three times more likely utilized condom as HIV prevention than those lived in rural, this may be due to the presence of more awareness creation about means of HIV prevention in urban than in rural area. On the top of this, daily laborers who were lived in urban 0.58 times less likely abstained and 0.32 times less likely be faithful than those lived in rural.

In this study among daily workers who had drink alcohol 0.30 times less likely abstained and be faithful than those who didn't drink alcohol. The above finding was supported by the qualitative results (FGD).

7. Strengths and Limitations of the study

Strength of the study

- Mix of methods
- It may contribute information for future studies.

Limitations

- Being the study design is cross-sectional it does not showed the cause and effect.
- It is difficult to exclude social desirability bias of the responses on knowledge and practice towards HIV prevention.
- Collecting data within the given period of time was the big challenge.

8. Conclusions

The following conclusions are forwarded from the findings of the study.

- This study has shown that, most of the respondents were knowledgeable on prevention and transmission methods. Even though; knowledge about HIV/AIDS is high among daily laborers there were gaps on prevention practice.
- The prevalence of HIV prevention practice was low among daily workers in floriculture
- Socio economic factors such as incomes, age, educational status, residential areas, marital status, and alcohol drinking were important factors significantly associated with prevention practice of HIV/AIDS in floriculture by daily laborers.
- The qualitative study has also indicated that among the daily laborers, low levels of prevention practice were reported despite the presence of knowledge to prevent HIV infection.

9. Recommendations

For Policy Makers

- Federal Investment Office should establish and strengthen HIV/AIDS prevention interventions in all floriculture sectors.
- Governmental, non-governmental and other bilateral organizations those working in HIV/AIDS interventions should support laborers in floriculture in order to developing their life skills to put knowledge in to practice; So that use prevention practice to avoid HIV infection.
- Ministry of Health, Oromia health bureau, Oromia investment office should have an integrated emphasis to strength daily laborers towards HIV prevention practice by facilitating peer education about HIV/AIDS.

For Program managers (Town Health office)

- Strengthening sustainable education by HEWs to improve Prevention practice.
- Establish anti AIDS clubs in all floricultures; which were found to be of great value in terms of supporting behavioral change, improving prevention practice of daily laborers; so that they can provide adequate information and services they need for HIV prevention in a friendly manner.
- Promote the use of condom by ensuring it's available and accessibility for all those who want to use it and strengthening sustainable education towards HIV prevention.
- Peer education relating to prevention practices of HIV/AIDS should be strengthened in reaching daily laborers in floricultures.

For Researchers:

- A large scale study is also recommended to strengthen the findings of this study and to have a broader view of the study objectives.

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Annex 1: Participant's Information sheet (English version)

Hello, my name is ……and I am going to conduct an interview with you on behalf of **Mr. Adane Kebede** a postgraduate student at Addis Ababa University, school of public health. He is now conducting a research entitled "to assess HIV prevention Practice towards HIV/ AIDS among daily laborers in floriculture of Holeta town ". This floriculture has been selected as one of the areas for his study. I would like to ask you about HIV/AIDS activities. The purpose of this interview is to conduct scientific research that may help us to identify problems of the program and forward some recommendation to concerned bodies that will help to improve the existing efforts. You may not get additional benefits if you volunteered for the study.

I have received permission from the Zonal and Town offices to conduct this study. The interview will just take a few minutes. Your responses will help the HIV/AIDS prevention and control implementers to better understand the current situation. Your answers will be completely confidential, and if at any time during the interview you want to stop answering questions, you are free to do so. If you are willing to participate, you will be requested to provide written informed consent before the interview. If you have any questions or if something is not clear please feel free to ask. You can contact the investigator and/or the advisor and ask any query you have at any time. Investigator's name and address:

Adane Kebede

Oromia Special Zone Surround Finfine Health Office

Tel.: Office 251 114403414

Mobile: 251 913155524

Advisor's name and Address: Dr. Abera Kumie, Addis Ababa University, School of Public Health, Addis Ababa Tel. (Mobile): 251 9112882912

Annex: 2 Consent form in English

I, the undersigned participant, have been informed about the study that assessment of prevention Practice toward HIV/ AIDS among daily workers in floriculture; I have been requested to reply answers for the questions asked by the data collectors, after I have been briefed that there are no direct benefits or incentives as well as no risks in participating in the study. I have been well informed that I have the right to withdraw from the study and this will not have any consequence (will not cause any harm on my future career). I have been given enough time to think over before I give my consent to participate in this study and I understand my personal information will be kept confidential and will be used solely for this study only. In addition, I have been well informed that my name will not be asked and unique identification is not required. My agreement to participate in this study is with the assumption that, the information that I provide will help to improve HIV/AIDS prevention in floriculture.

Was the information/objective clear?

1. Yes 2. No

Are you willing to participate in the study?

1. Yes2. No

For any convenience and problem you can contact the principal investigator

Phone -0913155524 E-mails- adane47@yahoo.com

Thank you for your kind cooperation!

Annex: 3 Questionnaires in English

English and Afan Oromo versions to assess prevention Practice towards HIV/ AIDS among in Holeta floriculture daily laborers

Date_____ Time started _____Time ended _____

Section 1: Socio demographic characteristics of respondents

No	Questions	Alternative responses	Skpto
1	Sex of respondent	1,Male_____2,Female_____	
2	How old would you be this year?	_____years	
3	What is your religion?	1, Orthodox 2, protestant3, Catholic 4,Muslim 5,Wakefata 6,Others(specific)____	
4	To which ethnic group do you belong?	1, Oromo 2,Amhara 3,Tigre 4,Guragie 5,Other ,specify	
5	What is the highest level of school you have completed?	1, Can't read and write (illiterate) 2, Can read and write 3,Grade 1-4 4,Grade 5-8 5. Grade 9-10 6. Grade 11-12 7,Diploma and Above	
6	What is your Current marital status?	1,Unmarrie 2,Married3,Divorced 4,Widower	
7	Duration of work in floriculture	_____years/_____month	
8	Monthly salary	_____Birr	
9	Current residence	1.Urban 2.Rural	
10	Do you have TV or radio in your home	1. Yes 2. I don't have	
11	With whom do you live at present?	1. with family 2. With relatives 3.Withfriends 4. Alone 5. with spouse	
12	How do you perceive your family status (comparing to your neighbors)?	1. Very rich 2.Rich 3.Medium 4. Poor 5.Very poor	
13	Do you drink alcohol? (like Tej,Tella,Areke, Beer and the like)	1. I have never drunk 2.I drunk occasionally (2-3 times in a month) 3. I drunk 2-3 times in a week 4. I drink daily	
14	Do you chew Khat?	1. I have never chewed 2. I chew occasionally (2-3 times in a month) 3.I chew 2-3 times in a week 4. I chew daily	
15	Do you smoke Cigarette?	1. I never smoked 2. I smoke occasionally (2-3 times in a month) 3.I smoke 2-3 times in a week 4. I smoke daily	

Part 2: Knowledge on HIV/AIDS

16	Have you Heard about HIV/AIDS?	1, Yes 2, No	
17	Who can get HIV/AIDS?	1.Only children 2.Only young people 3.Only adults 4.Any body 5.Commercial sex worker 6. Heavy truck driver 7.other specify_____	
18	How can should be identified a person who had HIV in his / her body?	1. Based on sign 3. Blood examination 2. Physical appearance	
19	Is HIV/AIDS a dangerous/serious problem?	1.yes 2.No	
20	If yes, why it is dangerous/ serious? (More than one answer is possible)	1.Because, there is no medicine 2.Because, those who get it die 3. Prolonged illness on AIDS suffers and their families.	
21	Is HIV /AIDS a transmittable disease	1.Yes 2.No	
22	Can HIV /AIDS be Prevented?	1.Yes 2.No	
23	What are your sources of information about HIV /AIDS? (More than one answer is possible)	1. Talking with Peer 2. Mini media at work place 3.Parents /Family 4.Brother/Sister 5.Television/Radio 6.Health-Worker 7. Religious leader 8. at school 9. From AIDS patient.	
24	Does awareness creation about HIV/AIDS was given in your institution	1.Yes 2.No	
Part 3 Knowledge About Mode of HIV /AIDS Transmission			
25	Can HIV /AIDS be transmitted by sharing unsterile sharp instrument?	1. Yes 2.No	
26	Can HIV/AIDS be transmitted by using HIV infected or unscreened blood for transfusion?	1. Yes 2.No	
27	Can HIV be transmitted during delivery from infected mother to her baby?	1. Yes 2.No	
28	Can a person get the HIV by doing unsafe sexual intercourse?	1. Yes 2.No	
29	Can a pregnant woman infected with HIV /AIDS transmit the Virus to her unborn child?	1. Yes 2.No	
30	Can HIV is transmitted from mother to child during breast feeding?	1. Yes 2.No	
Part 4 Knowledge About prevention method of HIV /AIDS			
31	Can people protect themselves from HIV by abstaining from sexual intercourse?	1. Yes 2.No	
32	Can people protect themselves from HIV by having one uninfected faithful sexual partner?	1. Yes 2.No	
33	Can HIV /AIDS be prevented by using correct	1. Yes 2.No	

	and consistent use of condom?		
34	Can people protect themselves from HIV by avoiding sharing unsterile sharp instrument like blade, syringe and needle?	1. Yes 2.No	
35	Can people protect themselves from HIV by avoiding using unscreened blood for transfusion?	1. Yes 2.No	
Part 5 prevention practice of HIV/AIDS			
36	Did you protect yourselves from HIV by abstaining from sexual intercourse?	1. Yes 2.No	
37	Did you ever be faithful to your sexual partner?	1. Yes 2.No	
38	Did you have any experience of sexual intercourse practice?	1. Yes 2.No	
39	If yes, with how many different sexual partners have you had in the past?	1. One 2.two 3. Three and above 4.I don't remember	
40	With how many different sexual partners have you had in the past six month?	1. One 2.two 3. Three and above 4.I don't remember	
41	Did you ever use a condom during you had sexual intercourse except with marital partner?	1. Yes 2.No	
42	Did you use a condom during you had sexual intercourse for the first time?	1. Yes 2.No	

Thank you very much for your kind cooperation!

Kutaa 1ffaa: Gaafii haala Hawwaassa fi ummaata

La	Gaafiilee	Carra Filannoo	cei
1	Saala	Dhi____ Du____	
2	Umurii waggadhan	waggaa_____	
3	Amantaa	1. Ortoodokisii 2. Piroteestantii 3. Kaatoolikii 4. Musiliima 5.Waqefata 6.Kan biraa	
	Sabuummaan kee maaliidha?	1. Oromoo 2.Amaara 3.Tigree 4. Guraagee 5.Kan biraa	
	Sadarka barnootaa	1,bareesuu fi dubisuu hin danda'uu 2,Dubisuufi bareessuu danda'a 3,Kutaa 1-4 4,Kutaa 5-8 5,kutaa 9-10 6,kutaa11-12 7, Diplomaa fi isaa ol	
6	Haalaa ga'iilaa	1. Hin fuune/heerumne 2, Fuudhera/heerumtetti 3. Walihiktetti 4. jala kan du`e/dute	
7	Erga asitti hojii eegaltee agam ni ta'a?	1.Ji'a 6-12 3.waggaa 1-3 4.waggaa 3 ol	
8	Mindaa ji'aa	Qaarshii_____	
9	Bakka jireenyaa	1. Magaalaa keecha 2. Magaalaan alaa	
10	TV ykn Radiyoo mana jiratuu keechaa qabdaa?	1.eeyyee 2.hin qabu	
11	Yeroo ammaa **eenyu bira jiraatta**?	1. Warra bira 2. Fira bira 3.Hiriyaa bira 4.Qophaa koo 5. Abba manaa/hadhaa manaa waaliin 6.Kan biraa yoo	
12	Haalaa gaalii maatii keetti akkamitti ilaaltaa?	1. baayee soreeyii 2. Soreeyii 3.giduu galeessa 4.harkaa qaleeyii 5.garmalee harkaa qaleeyii	
13	Dhugattii alkoolii ni dhugdaa?	1. eeyyee 2. Hin dhugu	
14	Caatii(jimaa) ni qamtaa?	1. eeyyee 2. Hin qamuu	
15	Tamboo hoo ni xuuxaa(haarsiitaa)	1. eeyyee 2. Hin xuuxuu	

Kutaa 2ffaa: Hubanoo HIV/AIDS Ilaalichisee

16	Waa'ee 'HIV' ykn dhuukuba Eedsii jedhamuu dhageetee beektaa	1. Eeyyeen dhaga'ee 2.Goonkuumaa'uu hin dhagenyee	
17	HIV'n eenyuutuu qabamuu daanda'aa jetee yaadaa?	1.ijoollee qofa 2.dargaaggota qofa 3.Namoota gurguddoo 4.eenyumayyuu 5.dubartoota mana bunaa 6.koonkolachistoota daandii dheera deemaan 7.kaan biro yoo jirate yaa ibsamu _____	
18	Namaa HIV'n qabamee akkamitti adda basuun danda'ama?	1. mallattoodhaan 2. Hubataan ilaaluun 3. qoranoo dhigaa gochuun	
19	Dhukkubnii HIV/AIDS rakkoo baay'ee ciimadhaa jetee yaadaa?	1. eeyyee 2.lakkii	
20	Eeyyee yoo ta'ee sabaabnii isaa maaliidha?	1. Qoriichaa hin qabuu 2.Namni isaan qabamee ni du'aa / faayyuun hin danda'uu 3. Dhukkubii yeroo dheeraaf maatii fi dhukkubsataarraan ga'aa	
21	HIV/AIDS'n dhukkuba namarraa namatti daddarbuudhaa?	1.eeyyee 2.lakkii	
22	HIV/AIDS ittisuun ni danda'amaa?	1.eeyyee 2.lakkii	
23	Hubanoo waa'ee HIV/AIDS eechaa argate?	1. Hirriyyaa irraa 2.Minii midii'aa 3. Maatii irraa 4.Posterii 5. radi'oo, TV 6. Hojatootaa fayyaa irraa 7. Aboottii Amaantaa irraa 8. Mana barnootaa irraa	

		9. Dhukkubsataa HIV/AIDS irraa 10. Kan biro	
24	Barnootni sagantaa HIV/AIDS irratti iddoo hojii kanatti keennamaa jiraa?	1.eeyyee 2.lakkii	

Kutaa 3ffaa Hubannoo karaalee HIV/AIDS'n ittiin daddarbuu ilaalichisee :-

25	Meeshaalee qaraa qabaan (miilacii,liilmoo,albee fi kkf) tokkotti fayyadamuun	1. eeyyee 2.lakkii	
26	Dhigaa falamee arjomuun	1. eeyyee 2.lakkii	
27	Yeroo da'uumsaa	1. eeyyee 2.lakkii	
28	Waalqunamtii saalaa dangaa hinqabneen	1. eeyyee 2.lakkii	
29	yeroo ulfaa hadharaa gara mucaati	1. eeyyee 2.lakkii	
30	Yeroo harmaa haadhaa hoosiisaan	1. eeyyee 2.lakkii	

Kutaa 4ffaa: Hubanoo karaalee HIV/AIDS'n ittiin ofirraa ittisaan ilaalichisee

31	Waalqunamtii saalaa dangaa hin qabnee gochuu dhisuun	1. eeyyee 2.lakkii	
32	Hiriyaa walqunamtii saalaa HIV'f hin saaxilamnee tokko waaliin amaantumaan jirachuun.	1. eeyyee 2.lakkii	
33	Haalaa sirrii fi itti fuufinsaa qabuun coondomitti fayaadamuun	1. eeyyee 2.lakkii	
34	Meeshaalee qaraa qabaan (miilacii,liilmoo,albee fi kkf) tokkotti fayyadamuu dhisuun	1. eeyyee 2.lakkii	
35	Dhigaa falamee arjomuu dhisuun	1. eeyyee 2.lakkii	

Kutaa 5 ffaa: Shakalaa ittisaa HIV/AIDS irratti godhamu.

36	Waalqunamtii saalaa dangaa hin qabnee gochuu dhisuun HIV irraa of eegdaa?	1. eeyyee 2.lakkii	
37	Hiriyaa walqunamtii saalaa tokko waaliin amaantumaan jirachuun HIV ofirraa ni ittisuu?	1. eeyyee 2.lakkii	
38	Walqunamtii saalaa rawaatee beektaa?	1.eeyyee 2.hin beekuu	
39	Yeroowaan darbaan kana keessattii namoota meeqaa waaliin walqunamtii saalaa rawwatee?	1. tokko 2. Lama 3.sadii 4.afurii fi isaa ol 5. Hin yadaadhu	
40	Ji'ootaa ja'aan darbaan kana keessattii namoota meeqaa waaliin walqunamtii saalaa rawwatee?	1. tokko 2. Lama 3.sadii 4.afurii fi isaa ol 5. Hin yadaadhu	
41	koondomii faayadamtee beektaa?	1. eeyyee 2.lakkii	
42	jalqabaa yeroo walqunaamtii saalaa eegaltuu koondomii fayyadamtee jirtaa?	1. eeyyee 2.lakkii	

"Deegarsaa Nuuf Gotaaniif Guddaa isiin Galateefanaa !!"

Annex 4: Focused Group Discussions (FGDs)

Focus group discussion protocol and topic guide

Assessment of prevention Practice towards HIV/ AIDS among daily laborers in floriculture of Holeta town Ethiopia 2013

Good morning/afternoon and thank you all for coming.

My name is---------- My colleague next to me is called ---------- We came from Community Health Department of Medical Faculty, Addis Ababa.

Read the following as it is:

"After we conduct some brief introduction, we will be talking about several different issues.

We will be asking you questions about your overall experience with HIV/AIDS in your locality and questions pertaining to the issue of prevention practice towards HIV/AIDS and factors that influence practice of HIV/AIDS prevention in floriculture. We will conclude the session by asking you for your recommendations on how such program might be implemented in your community in the future".

Potential use of gathering of this information is to gain further insight in those aspects of Prevention practice towards HIV/AIDS interventions among daily laborers.

Major rules

Issue of confidentiality

Please be assured that any information collected here will be strictly kept confidential. The staff of the research group and other participants will not directly share the information in a way that would reveal an individual's personal identity.

Consent for participation and tape-recording

At this point it is important that we obtain your consent for conducting the session.

Understand that this is more for your protection than anything else.

Read consent form out loud to the group

"Your remaining in the session indicates that you voluntarily agree to participate in this discussion program. You have the right to refuse to answer any questions and to end the discussion if you find it necessary to do so. For the sake of accuracy and efficiency, we will also be tape recording these sessions, unless any one has any objections".

Role of moderator/note taker

The moderator will be in charge of facilitating the discussion .The moderator will bring the discussion back to the topic at hand should it go beyond the main issues. The moderator will not give any indication (verbal or physical) that would encourage certain types of comments or discourage other types of comments. In short, the moderator will guide the discussion when necessary, being careful not to lead the discussion. It is our role to facilitate, but your role to tell us what you think. The note taker will have the sole responsibility of capturing the sessions as accurately as possible. This will include not only participants' responses, but nonverbal actions, physical environment, atmosphere of the session, as well as other vital characteristics of the session.

Importance of focus group

In this group everybody should feel free to talk. Each and every opinion is important and wanted. It is very important that all the people in the group get a chance to express their opinions.

Agreement to disagree

In this group there is no right or wrong answers. Everybody should express the opinions or attitude pertinent to him or her. When you express your opinions you are encouraged to be honest in your views of the prevention practice towards HIV/AIDS. We want you to focus your comments on the program and not toward each other or members of the staff.

Annex 5: Informed consent form (English Version) FGD

I confirmed my agreement after the detailed objective of the study has been explained to me in the language I understand well.

Focus group discussion topic guide

1. We would like to hear a little about your experience or knowledge about AIDS

- Tell us what is HIV/AIDS?
- Way of transmission
- What are the most important preventive measures being taken by the workers in your organization?

2. Do you have any experience of prevention practice towards HIV/AIDS?

Probe

- Abstinence, be faithfulness to partner and consistent use of condom?
- Reduce partners? Avoid commercial sex? Delay sex? Others
  - ✓ Do you know way of condom use and factors for its non-utilize?
  - ✓ Do you use it whenever you have sex with regular partner, irregular partners, and commercial sex workers?

3. Would you tell us factors influencing practice of HIV/AIDS prevention among daily laborers in floriculture?

Probe:-May be

- Sex after taking alcohol, khat, or substances
- Peer pressure, multiple sexual partners**,** Separation from spouse**,** economical problem, Presence of many commercial sex workers, early sex practice, illiteracy, place of reside, lack of both knowledge and attitude towards mode of HIV/AIDS prevention ,Others

This is the end of our discussion. Thank you very much for your participation in the discussion**.**

Prevention practice towards HIV/AIDS among daily laborers in Holeta floriculture Addis Ababa, March, 2013, AAU

Uunkaa 1: Yaadaa marii Varshinii Afan Oromo

Akkam bultan? Marii Kenya irratti argamu keessaniif bayyee isiin galaateefadha. Maqaan koo Adaana Kabbadaa jedhama. Iddoon ani irraa dhufee Univeersiitii Finifinee, Kolleejii Saansii Fayyaa, Mana baarnoota Fayya Hawasumma ti . Kan dhufeef waa'ee hubanoo, Ittisaa fi to'anoo dhukkuba HIV/AIDS irratti hojataan qoonnaa Abaaboo keechatti haala mijeesuu dandaa'an keessat hubanoof fudhatamin hojjataa keessa jiru maali akka fakkatuf gara fuldurat maali godhu akka qabnuu mari'achuuf. Deebiin keessan kara kamuniyu waan nu qarqaruf deebiin kun sirrii kun immo siiriimiti kan jedhamu hin jiru, odeefanoon isiin dhiyeesitan kamuyuu baay'ee fudhatama qabaa. Maqaan nama kamuyyu waan hin bareesineef sooda kamiyu malee qoraanoo kana irratti waan nuuf hirimataaniif galaatooma jadha.

Gaaffii, mirgaa fi komii (teessoo qaama qunnamamuu): tajaajilamaan qorannoo kana keessatti hirmaatee dhimma qorannichaan walqabatu irratti gaaffiis ta'ee komii qabu kan qunnamuu qabu Teessoo qaama qunnamamuu: Adaana Kabbadaa(lakk.bilbila 0913155524).

Ykn. E.mail: adane47@yahoo.com Finfinnee/Ethiopia

Tessoo gorsaa Dr. Abarra Kumee lakk.bil 251 9112882912

Uunkaa 2: Waliigaltee

Yuuniivarsiitii Finfinnetti kutaa Eegumsaa Fayyaa Hawaasaa irraa beekumsa, ilaalchaa fi Shaakkala waa`ee dhukkuba HIV/AIDS ittisuu irraatti gaafii qophaa'ee. Maqaan kiiyyaa Adaana Kabbadaa yamu jedhamu, Yuuniivarsiitii Finfinnetti Qo'ataa FayyaaHawaasaa walgalaa diigrii maastreetiidhan barataa isaa hoggaa dhumaati. Kaayyoon qo'anno kana Beekumsa fi Shaakkala waa`ee dhukkuba HIV/AIDS ittisuu fi to'achuu irraatti hojataan qonnaa Abaaboo kechaa hojatuu ilaalchiise oddeffanno sasaabuudha fi rakkoo karaa kanaan umamuu dandaa'aniif furmaata fiiduuf akka gargaaru tarkaanfiiwwan fudhatamaniif karoora baasuudhaf.Kanaafu, gaafiilee askeessaa jiraniif ifaa fi amanumaan deebiisuudhaan gargaarsii isin gootaanbaayyee Kan dinqiisifamu yammu ta'uu, kaayyoo qo'anno kana galmaan gahudhaaf qooda olanaa ni qaba.Iccitii deebii debiistaniif eegudhaaf jeecha fuula kamirrayu maqaa keessan barreesuunbarbaachisaa mitii. Akasuumas deebii hojataan qo'anno kana irratti hirmaate dhaabata kamiifiyyudabarfame hin kennamu. qo'annoo kana irratti waan hirmateef faayidaas ta'ee midhaas kan sirraan hin geessisne ta'uu isaa hubachisa.

Gaafiilee kaneen keessaa gaafii deebii debisu kan hin barbaadne ykn gaafiilee hundaa deebiikennu yoo hin barbaadne mirgii keessan kan eegame dha. Gafiilee deebiisuudhaan walta'iinsakessani yoo agarsiistan fixaan ba'iinsa qo'anno kanaatiif qoodaa keessan baataniirtu jechuu dha.

Gaafiilee deebiisuuf fedhii ni qabdu?

Eeyyee yoo jetan, _____1 itti yaa fuufnu

Lakkii _____2 yaa dhabnuu

Waanta qulquulefatanii fi rakkoo kamifuu bilbilaa fi tessoo qorataa

Lak.bilb -0913155524 E-mails- adane47@yahoo.comtessoo Finfinnee kutaa bulchinsa N/silki Laftoo Gummachaa nuuf gootaaniif guddaa galatoomaa!

Uunkaa 3 Gaafilee Marii xiinxalaa (FGD)

1) Hubannoon waa'ee HIV/AIDS irrattii qabdaan ;karralee ittiin daddarbuu,karraa ittin ofiirraa ittisaaniin, fi kkf irratti mari'adhaa.

2) Shakkaliwaan karralee HIV ofirraa ittisaaniin gochaa jirtaan yaa ibsamuu.

Tarii Koondomii fayyadamuun; tokkoofi tokkoo ta'uun waaliif ammanamudhaan jirachuu;wal-qunaamtii saalaa dhisuu;dubartootaa mana buna waliin walqunamtii daangaa hin qabnee rawachuu dhisuu; walquunamtii saalaa dursaan eegaluu dhisuu,hiriyootaa walqunamtii saalaa hir'isuu, kan biro yoo jiratee yaa ka'uu.

- Yeroo waalqunamtii saalaa jalee kee dhabataa waaliin, jalee kee dabartee dabartee itti dhaqtuu fi dubara mana buna waliin rawaatuu yeroo hundaa koondomitii ni fayyadamtaa?
- koondomiittii akka hin faayyadamneef maaliidha rakkoon kee?

3) Sabaabootni shakkaliin HIV/AIDS bakkaa oomisha Abaabootti akka hin babbalane godhaan godhaan maal maal fa'aa? **Tarii**

- Wal-qunaamtii saalaa caatii,alkoolii, qorichoota adda addaa erga fudhataan rawachuu
- Dhibbaa hiriyyaan, Maammilaa wal-qunaamtii saalaa hedduu qabachuu, Hadhaa manatiin gargar jirachuu,Duubartootnii daldalaa mana bunaa irratti boba'aan baay'achuu, walqunamtii saalaa dursaan eegaluu, bakka jireenyaa, barnootaa dhabu,rakkoo daandetii, rakkoo galii, umurii malee herumuu.
- Hubaanoonii fi ilaalichii HIV/AIDS ittisuu fi to'achuuf godhamuu dhabamuu, kan biro yoo jiratee yaa ka'uu

Marii keenyaa kanaa irratti waan xumuruuf baay'ee galatoomaa!

Annex 6 Knowledge assessing questions

Questions used to assess knowledge about HIV transmission

1. If HIV is transmitted through sexual intercourse
2. If HIV is transmitted from mother to child during pregnancy
3. If HIV is transmitted from mother to child during breast feeding
4. If HIV is transmitted through blood contact
5. If HIV is transmitted by sharing of sharp materials with someone who is infected.
6. If HIV is transmitted from pregnant women who infected with HIV to her unborn child.

Questions used to assess knowledge on means of HIV prevention

1. If HIV is prevented by abstinence
2. If HIV is prevented by staying faithful with one uninfected partner
3. If HIV is prevented by using condom every time during sex
4. If HIV is prevented by avoiding using unscreened blood for transfusion.
5. If HIV is prevented by avoiding sharing unsterile sharp instrument.

DECLARATION

I, the undersigned, declare that this thesis is my original work, has never been presented in this or any other university, and that all the resources and materials used for the thesis development, have been quoted and acknowledged as complete references.

Name of student: Adane Kebede (BSc.)

Place: School of Public Health, Addis Ababa University, Ethiopia

This thesis work has been submitted for examination with my approval as university primary advisor.

Name: Dr. Abera Kumie

Date: _____

signature_____