

**HIV STATUS DISCLOSURE TO SEXUAL PARTNER AND
ASSOCIATED FACTORS AMONG ART USERS ATTENDING
ART CLINICS IN HARAR TOWN, HARARI REGIONAL
STATE, EASTERN ETHIOPIA**



BY:

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HIV status disclosure to sexual partner and associated factors among ART users attending ART clinics in Harar Town, Harari Regional State, Eastern Ethiopia

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Abstract

Background: There are 33.4 million people were living with HIV/AIDS worldwide at the beginning of 2009. In Ethiopia, about 1,216,908 people are living with HIV. ART has the capacity to transform HIV infection from an incurable “death sentence” into a treatable “chronic illness”, stimulating people’s willingness to be tested and disclose their sero-status. Disclosure of HIV positive status has two sets of contrary effects. It may motivate sexual partner for Voluntary Counseling and Testing, reduce risk behaviors, and increase receiving support and adherence to ART. On the other hand, disclosure may cause blame, discrimination, abandonment, depression, loss of economic support and disruption of family relationship. Due to fear of these risks patients may not disclose their HIV positive status.

Objective: To assess HIV status disclosure to sexual partner and associated factors among ART users attending ART clinics in Harar town.

Methods: A facility based cross-sectional study among ART users in Harar town ART clinics complemented with a qualitative study were conducted among a sample of 388 PLWHA in Harar town ART clinics from March 21 - April 8/ 2011. A pre-tested structured questionnaire and interview guide were employed to obtain the necessary information for this study. The qualitative data were collected by counselors assigned in ART clinics. The collected data were analyzed using SPSS Version 16.0 and triangulated with the qualitative results. Bivariate and multivariate logistic regressions were carried out.

Result: - A total of 388 ART users of which 59.85% are females and 40.25% are male were participated in the study. 79.6% disclosed their status for at least someone, while 67.5% disclosed their HIV status to their current sexual partner. Reasons reported for non-disclosure were fear of partner’s reaction, discrimination and mistreatment. Disclosure to sexual partner was associated with marital status, duration since HIV test was made, being influenced by others to HIV test, objection from others to undergo HIV test, support & mistreatment from others, knowledge of partner’s status and Witness of other’s disclosure.

Conclusion and recommendation: - Disclosure level to anyone and current sexual partner is low in this study. In Ethiopia where most couples do not mutually know their HIV status, disclosure has paramount importance in curbing new infection. I suggest that HIV prevention in the country as well as regions should target HIV status disclosure and further positive behavioral changes.

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Abbreviations and Acronyms

AIDS:	Acquired Immunodeficiency Syndrome
AOR:	Adjusted Odds Ratio
ART:	Anti Retroviral Therapy
BCC:	Behavioral change communication
BSC:	Bachelor of Science
CHW:	Community Health Worker
EDHS:	Ethiopian Demographic and Health Survey
HAART:	Highly Active Anti Retroviral Therapy
HAPCO:	HIV/AIDS Prevention and Control Organization
HIV:	Human Immunodeficiency Virus
ICAP:	International Center for AIDS care and treatment Program
IEC:	Information, Education and Communication
JU:	Jimma University
MPH:	Masters in Public Health
NGO:	Non Governmental Organization
OPD:	Out Patient Department
OR:	Odds Ratio
PICHT:	Provider Initiative Counselling and HIV Test
PLWHA:	People Living With HIV/AIDS
RH:	Reproductive Health
SNNPR:	Southern Nations, Nationalities and Peoples Region
SPSS:	Statistical Package for Social Studies
UNAIDS:	United Nations HIV/AIDS Program
UNFPA:	United Nation's Fund for Population Agency
USAID:	Unite States Agency for International Development
VCT:	Voluntary Counseling and Testing
WHO:	World Health Organization

Chapter: 1. Introduction

1.1 Background Information

At the beginning of 2009, a total of 33.4 million people were living with HIV/AIDS worldwide in which 2.7 million became newly infected and 2 million lost their lives to AIDS. About 22.4 million HIV/AIDS cases were from SSA (Sub-Saharan Africa). This figure represents nearly 67 % of the total cases of people living with HIV/AIDS (PLWHA). Approximately 70 % (1.4 million) of AIDS-related deaths worldwide occurred in sub-Saharan Africa, where AIDS is by far the most common cause of morbidity and mortality (1).

The HIV/AIDS epidemic in Ethiopia continues to pose a threat to lives of its people. According to the projected 2010 single point HIV prevalence estimate report, the National prevalence was 2.4 %; where male prevalence was 1.9% and female 2.9%. This estimate also showed, about 1,216,908 people were living with HIV in Ethiopia in 2010; in which 717,669 are females and the rest 499,239 are males (2).

With the advent of antiretroviral therapy (ART), people living with HIV/AIDS (PLWHA) can now plan to live, instead of planning for death (3, 4). Highly Active Antiretroviral Therapy (HAART) was a breakthrough in the industrialized world, leading to the reduction of mortality and the improvement of quality of life of people living with HIV/AIDS (5, 6). It transformed the disease into a chronic treatable condition for a significant proportion of PLWHA with access to this treatment (7).

ART drugs have not only improved the life of PLWHA in terms of delaying disease progression and improving quality of life but also seem to have an effect on stigma. The more accessible ART become, the more it is expected that people would feel to know their sero-status using voluntary counseling and testing (VCT) or provider initiated counseling and testing (PICT). ART has the capacity to transform HIV infection from an incurable “death sentence” into a treatable “chronic illness”, stimulating people’s willingness to be tested and disclose their sero-status (8-10).

In Ethiopia in 2009, approximately 397,818 people needed ART (2). But there were a total of 241,236 people ever started ART. Females accounted for 57.9% of ART clients. National ART coverage increased from 46% in 2008 to 53% in 2009 (11).

To respond to the treatment needs of people living with HIV/AIDS, the National Antiretroviral Drugs Policy was developed in 2002 (12). A fee-based ART program was officially started in 2003; Moreover, a number of initiatives have been undertaken to expand the availability of ART. As a result, a free ART program was launched in early 2005 (13).

As HIV becomes more of a chronic disease and PLWHA live longer, disclosure of HIV status is encouraged as a way to reduce sexual risk behavior and transmission of the virus, and increase access to treatment, support and care (3, 4). Studies indicate that individuals who disclosed their results have better adherence to ART treatments (14). A mathematical modeling analysis also showed that serostatus disclosure reduced the risk of HIV transmission by 17.9% up to 40.6% relative to non-disclosure (15).

A review by Medley and other studies conducted in sub-Saharan Africa found that disclosure rates to sexual partners range from 17% to 86%. The World Health Organization estimates that 52% of PLWHA disclose their status to their sexual partners in Africa. Twelve more studies on disclosure to sexual partners or spouses in Africa have reported rates ranging from 24% to 91% (16–22).

ART and pre-ART care as well as test services such as HIV counselling and testing (HCT) programmes, emphasize HIV status disclosure among persons living with HIV/AIDS (PHA). Disclosure to significant others would provide emotional and psychological support to PHAs whereas disclosure to sexual partners could lead to the partners also undertaking HCT and ART (23, 24). Since disclosure creates the awareness of HIV risk to untested sexual partners, it subsequently leads to greater uptake of HCT (25).

Not only does disclosure motivate people to reduce risky sexual behaviors thereby decreasing the transmission of HIV, but it is also associated with improved access to HIV prevention and treatment programs and with better treatment outcomes (23, 24). The provision of antiretroviral therapy (ART) in resource-poor settings is expected to mitigate stigma by turning AIDS into a manageable condition, subsequently leading to improved rates of disclosure to sexual partner, HIV testing and ultimately to safer sexual behaviours (26, 27).

1.2 Statement of the problem

From a public health perspective, HIV status disclosure has been advocated primarily because of its contribution to reduced risk of HIV transmission, as HIV status disclosure especially to one's sexual partner, encourages the partner to engage in preventive behaviors (28). Disclosure of HIV positive sero-status to sexual partners and/or close relatives and friends (significant others) is an important public health strategy because it offers a number of benefits to the infected individual and to the general public (29, 30).

Although disclosure has a number of benefits, it is not without problems. Along with the mentioned benefits, HIV status disclosure has many potential risks and there are a number of barriers that HIV-infected individuals face when sharing their test results with friends, family and sexual partners (31, 32). Disclosure can also incur negative consequences (32, 33), making the decision to disclose a dilemma for individuals infected with HIV (31).

People with HIV/AIDS face not only medical problems but also social problems associated with the disease. One of the barriers to reaching those who are at risk or infected with HIV/AIDS is stigma (33). So disclosure is of particular relevance in the context of generalized epidemics in sub-Saharan Africa, where 22 million people live with HIV/AIDS (34), most of whom are unaware of their own and their partner's HIV status (35, 36), and where between 45% and 75% of married HIV-positive individuals have HIV-Negative spouses (37, 38).

Some studies in Africa showed that even though PLWHA regain their strength with ART and the physically devastating effect of HIV/AIDS is tempered, they still face psychological isolation and condemnation from their sexual partner, family, friends and society because people around them are aware of their HIV status. Another problem PLWHA face is that combinations of health-seeking strategies make it difficult to know the effectiveness of ART (39, 40).

In Ethiopia, although the advent of free and accessible ART has offered hope and encouraged people to go for testing, there are still barriers to HIV testing as well as disclosure (41). Without testing, which is an essential first step to ART; people who are infected remain transmitting the virus to others. When individuals seek for care, ART has lost much of its potential effectiveness as a prevention strategy (42,

43). There are also several potential negative consequences associated with HIV disclosure such as domestic violence and abuse, abandonment, and discrimination, which can serve as viable reasons for nondisclosure (11, 44 & 45).

Disclosure of HIV positive status has two sets of contrary effects. It may motivate partner for Voluntary Counseling and Testing (VCT), reduce risk behaviors, and increase receiving support and adherence to ART (46, 47). On the other hand, disclosure may cause blame, discrimination, abandonment, anger, violence, depression, loss of economic support and disruption of family relationship. Due to fear of these risks patients may not disclose their HIV positive status (48-50).

Ironically, widespread use of ART may decrease transmission and increase disclosure concerns (51). In spite of all antecedent benefits of disclosure some people may decide to keep their positive HIV status a secret, others may disclose partially to specific people while others may have full/public disclosure (52-54). Failure to disclose HIV positive status especially sexual partner could lead to unsafe sexual practice, which in-turn increases risk of infecting sexual partner, couples re-infection with new strains and HIV transmission to the child and to the whole community as a general (55).

Thus, status disclosure especially to sexual partner is one of the major areas that should be addressed in HIV prevention & control. So far, in Eastern Ethiopia, especially Harari Region, there has not been any report concerning HIV status disclosure among ART users. Therefore, this study is aimed to determine the magnitude of HIV positive status disclosure to sexual partner and associated factors.

Chapter: 2 Literature review

Disclosure of HIV status

Disclosure is an important public health goal for a number of different reasons. Disclosure may motivate sexual partners to seek testing, change behaviour, start ART and ultimately decrease transmission of HIV. It has now been recognized, however, that there are a number of barriers that HIV-infected individuals face when sharing their test results with friends, family and, most importantly, sexual partners. There is considerable interest in finding strategies to encourage disclosure to sexual partner and others because of the public health benefits that may accrue from the disclosure of HIV status (69).

The study in Uganda revealed among the people who had disclosed, 66% had sexual partners and 80% of PLWHA with sexual partners had disclosed to them (57).

A cross sectional study done on rate and correlates of HIV serostatus disclosure among HIV positive pregnant women in Nnewi south eastern Nigeria showed, the disclosure rate accounts for sexual partner (90%), Priest/pastor (23.5%), Close family member(11.4%) and Close friends(3.7%) (70).

Longitudinal study from the United Republic of Tanzania by MacNeil reported that six months after diagnosis, individuals were most likely to share results with their parents (49.4%), followed by spouses (24.7%) and then sexual partners (18.8%). The study also found that HIV-positive individuals primarily choose an individual of the same sex and same generation with whom to share results. According to Kilewo, however, lower disclosure rates were reported to family members (5.6%) as compared to partners (16.7%) among women enrolled in an HIV peri-natal transmission trial (69).

A cross-sectional study done on factors influencing disclosure of HIV positive status in Uganda indicated, half (50%) of all the respondents disclosed their status at least for someone (57). While other exploratory study conducted in Uganda on Reasons for Disclosure of HIV Status by People Living with HIV/AIDS showed 95% of study PLWHA disclosed their serostatus at least to someone (58).

A study in New York, USA on Disclosure of the diagnosis of HIV/AIDS to children born of HIV-infected mothers indicated, of 73 perinatally HIV-infected children who are 6 years of age or older, 41% have had complete disclosure and another 19% are partially disclosed from their parents (59).

A study in Jimma, among HIV positive men and women clinical service users on disclosure experience and associated factors showed 94.5% of PLWHA indicated that they have disclosed their result to at least one individual and 90.2% to their current main partner. However, of those who disclosed 14.2% had had sex with their partner before telling their result to their partner. According to Jimma study, respondents reported disclosing their serostatus most frequently to main partners (90.8%) followed by relatives (33.2%), mother (14.9%), friends (14.2%), father (9.1%), neighbors (6.8%), children (6%), other family members (4.7%) and religious leaders (4.4%) (60).

A comparative cross sectional study in Yirgalem hospital, Southern Ethiopia, on Adherence to ART in PLWHA, implied that 88.3% of studied PLWHA had disclosed their sero-status; 18.6% fully and 69.8% partially (61).

In a study done at Hawassa University Referral Hospital, on HIV positive status disclosure to sexual partner among women attending ART clinic; More than 58% of the women with regular partner knew HIV status of their partner of which 7.1% of their sexual partner were HIV negative. Nearly ninety two (92.2%) of the respondents disclosed their HIV positive status to anyone; while 85.7% disclosed to their sexual partner. Among women with regular sexual partner, 87.3% disclosed their status to their sexual partner (62).

Reasons for Disclosure

A study in Uganda listed the main reasons for disclosure. It indicated that they are multiple and included to get financial and social support (35%) followed by the need to get treatment (33%) and wanted their partners to also undertake the test (32%) (57).

According to Jimma study among who have disclosed to others; 41.9% anticipated that their partner would be supportive while 46.4% of partners were supportive after disclosure. Moreover 27.7% anticipated their partner would assure them and in actual terms 38.4% received assurance from their partners (60).

Reasons explained by PLWHA for status disclosure in an Exploratory Study conducted in Uganda are; 45% of PLWHA to receive support (emotional, financial & material); 24% to access medication (actual medicine/transport for medication); 11% treatment buddy; 11% to ensure and receive appropriate assistance (not bewitched) (58).

In the study at Hawassa university referral hospital, the first individual to whom the respondents disclosed their HIV test result was to sexual partner, which accounted 75.4%; while more than 57% of the women next disclosed to their family members. (62).

Reasons for Non-disclosure

According to the study in Jimma reasons for non-disclosure among those respondents who did not disclose their test results to their partner were "my partner might get angry with me" (20.4%), "fear of separation/divorce" (17.3%), "my partner might be afraid of catching HIV from me" (16.3%), "not to worry partner"(9.2%), "fear of accusation of infidelity" (7.1%), "fear of being labeled a bad person" (6.1%), "no enough time to discuss because my partner works in other place" (6.1%), "fear of physical abuse" (5.1%), "fear of murder" (4.1%), "fear of breach of confidentiality" (3.1%) (60).

The reasons cited for non disclosure in Uganda were, fear of divorce and violence (42%) for those in sexual relationships, fear of discrimination and stigma 29%, fear of rumour mongering 21%, fear of accusation of promiscuity/infidelity 23%, and 8% said that they saw no reason to disclose (57).

According to a study in Jimma, reasons that these individuals did not want to tell their HIV positive status were fear of stigma and discrimination (79.4%), not to worry others (13.8%), fear of gossip (6.5%) fear of a negative reaction (3.3%) and fear of losing their job (1.5%) (60).

Patients with a treatment hid their serostatus significantly less than patients without emotional and treatment support. The results in study conducted in South Africa on social capital and its role in public HIV disclosure among public sector ART patients imply that a person's chances of being a consistent public discloser increase by 0.21 standard deviations when they have access to emotional support (68).

Other Factors associated with disclosure

According to another study conducted in Jimma university hospital on effect of access to ART on stigma, disclosure concern was shown to be significantly higher among treatment naïve cases than those taking ART and there was a statistically significant association between duration of knowing sero-status and disclosure (65).

A study in Uganda indicated that respondents who were more than 25 years of age, who were not married and those who had less than 2 sexual partners in the last 12 months were more likely to disclose their HIV positive status. Respondents who had initiated ART, who received post-test counselling and ongoing counselling at every clinic visit, who tested at voluntary testing and counselling clinic and those who were post-test counselled as a couple were more likely to disclose. Regarding Community factors the respondents who had ever seen PHA publicly disclose, and those who had never witnessed mistreatment of PHA were more likely to disclose their HIV status. Similarly perceiving PHA as mixing freely with other people, and that PHA are discriminated, labeled or laughed at were not significantly associated with disclosure (57).

A study in Jimma revealed individuals who live in the same house with their partner were 9.2 times more likely to disclose to their partner compared to those who do not live in the same house. Nearly four times as many respondents who reported prior discussion about HIV testing disclosed to their partners in compared to those who reported not having a prior discussion about HIV. Knowledge of the HIV status of one's partner was also associated with partner disclosure. Respondents that reported not knowing their partner's HIV status were 98% less likely to disclose to a partner in comparison with those who did know their partner's status (60).

In the study conducted in Hawasa University, women who were incohabiting relationship were less likely to disclose their HIV positive status to their sexual partner than those married. Women who did not know HIV status of their sexual partners were less likely to disclose their HIV positive status than the reference group and women who had been on ART for more than one year were more likely to disclose their HIV positive status than their counter parts (62).

On a study conducted in Brazil on difficulties reported by HIV-infected patients using ART, adverse reactions were the main reason of difficulty reported (33.3%), followed by complex scheduling (23.9%). Less frequent reasons were those associated with emotional status(9.4%),

social interaction (7.2%), pill burden (6.7%), health care service (6.1%) and the organoleptic properties of the drugs (5.6%) (71).

Various literatures have shown many issues regarding disclosure. Most of them have focused on reasons for disclosure and non-disclosure, to which they disclose and other factors that associated to disclosure like difficulties and timing of disclosure. Therefore this study will try to look at disclosure to sexual partner among ART users; because it is crucial to assess status disclosure and other aspects related to disclosure so as to design appropriate intervention.

Conceptual Frame work

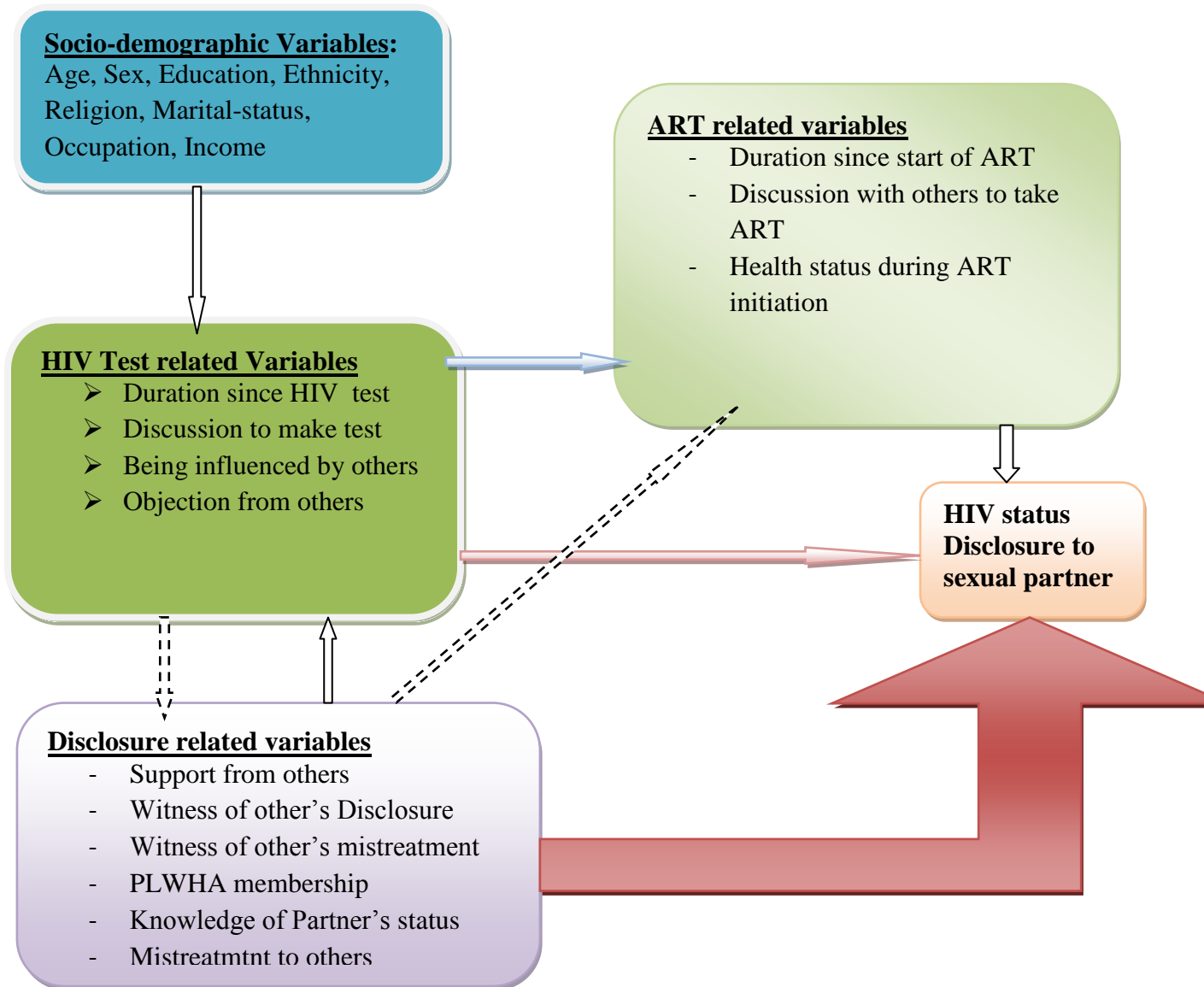


Figure 1:- Conceptual framework of the study

The conceptual framework is constructed by principal investigator based on findings of other's literature that have been referred. The framework shows the relationship of Independent variables to each other and to dependent variable (disclosure to sexual partner). Socio-demographic variables affect directly HIV test related variables which in-turn affect ART related variables and disclosure to sexual partner. Disclosure related variables affect HIV test, while it also affect ART related variables partially and disclosure to sexual partner fully.

2.2 Significance of the study

As it has been stated in the statement of the problem and background information, People living with HIV/AIDS (PLWHA) face not only medical problems but also social problems associated with the disease and ART use. These problems negatively affects, seeking care after diagnosis, quality of care given to HIV patients, status disclosure and treatment. If there is no status disclosure especially to sexual partner, the HIV transmission cannot be controlled. This may lead to high HIV burden.

Identifying why PLWHA may or may not decide to disclose their HIV status is important if interventions that seek to promote safe disclosure decisions, positive disclosure outcomes and secondary prevention of HIV are to be effective. Furthermore, understanding the reasons for disclosure and nondisclosure and how these reasons may differ depending on the one of disclosure may be essential for tailoring intervention strategies.

Yet, only few studies conducted in Ethiopia have examined disclosure of HIV clients (male or female) on how reasons for disclosure and nondisclosure may differ from one to the other of the one disclosing, and the nature of the relationship to the recipient of disclosure.

So far, in Eastern Ethiopia especially in Harari Region, there has not been any report on HIV positive status disclosure to sexual partner among PLWHA. Thus, there is need to understand factors associated with disclosure of HIV positive status among PLWHA using ART, with a view of suggesting measures for increasing the rates of disclosure. Therefore, the study is aimed to determine the magnitude of HIV positive status disclosure and associated factors.

The findings of this study may provide important information for the concerned body (for both governmental and nongovernmental organization) to plan important intervention to improve the service provision and to achieve changes in the disclosure concerns.

The study can also be used as a base for recommendations on how to improve the disclosure status, which could also contribute to the already existing body of knowledge on the status disclosure concerns.

Chapter 3: Objectives

3.1 General Objective

- To assess HIV status disclosure to sexual partner and associated factors among ART users in PLWHA attending ART clinics in Harar town, Harari Region, Eastern Ethiopia, 2011

3.2 Specific objectives

- To determine the magnitude of HIV status disclosure to sexual partner
- To describe reasons reported for disclosure and non-disclosure
- To identify service related difficulties reported by ART users
- To assess factors associated with HIV status disclosure to sexual partner

Chapter: 4. Methods and Materials

4.1. Study Area and period

The study was carried out in Harar town from March 21 – April 8/ 2011. Harar is a capital and the only urban town of Harari People's National Regional State. The Harari region is totally surrounded by Oromiya regional state (80).

Harar town is divided into 6 Woreda Administrative units constituting 19 kebeles. The town is located in Eastern Ethiopia about 525 Km from Addis Ababa with an average elevation of 1885 meters. The city has an estimated population of 77,000 of which 49.2% were males and the rest were females out of this 87.3% and 68 % of males and females are literate respectively. In the town there are 6 Hospitals, in which two are privately owned. These Hospitals have got a total of 487 beds. Also in the city there are 4 Health centers (80).

The inhabitants of Harar represent different ethnic groups both from Muslim and Christian religious groups, including Oromo, Somali, Amhara, Gurage, Tigray, and others. Nevertheless, within the walled part of the city, the indigenous Harari ethnic groups are predominant. The town also serves as one of the active commercial, religious, cultural and political centers of the country and a home for various nations and nationalities. Most of economically active people are engaged in small-scale trade & civil service (80).

In the town the eight health institutions providing ART services are four governmental Hospitals (Hiwot Fana, Jugel, Army and Police) and one private hospital (Yemage General Hospital), one TB center, two health centers (Arategna and Jinela Health centers). The institutions not only provide ART services but also HCT and PMTCT services (2).

According to projected single point estimate prevalence of HIV, the Adult HIV prevalence of Harari region in 2010 was 3.8%; while the urban prevalence is 5.2% and rural prevalence is 0.3%. It was estimated that 5,212 people were living with HIV in 2010; from this 2,149 are males and 3,063 females. In 2010 the total new HIV infections were 588. Total Annual AIDS deaths in the year were 104(2).

4.2. Study Design

Facility based cross sectional study among ART users was conducted from March 21 – April 8/ 2011 in all Harar Town ART clinics to be complemented with a qualitative study.

4.3. Population

4.3.1. Source Population

The source population consists of all People Living with HIV/AIDS and using ART from all ART service providers during the study period in Harar town.

4.3.2. Study Population

The study population were sampled PLWHA that were ART users at Health institutions during data collection time.

Qualitative Study

The study population for Qualitative study was purposively selected from:-

- Counselor heads who were providing ART service
- Harari Region Health bureau ART focal persons
- PLWHA association members (Tesfa Goh)
- ICAP and HAPCO HIV/ART experts

4.3.3. Inclusion and Exclusion Criteria

Inclusion criteria:

- PLWHA who visited ART clinics during the study period
- Age 18 or more years
- Who had sexual partner within past one year
- Able and willing to respond
- Who are not too sick or admitted to health institution

Exclusion criteria

- Anyone who does not fulfill the inclusion criteria

4.4. Sample Size Determination and sampling technique

4.4.1 Sample size determination

For quantitative study

Sample size was determined using single population proportion formula by using the proportion of PLWHA disclosing their sero-status to sexual partner to be 58 % (62), with 5% level of significance and 5% margin of error a sample size of 411 was calculated.

$$n = \frac{(Z_{\alpha/2})^2 p (1-p)}{d^2} = \frac{(1.96)^2 * 0.58(1-0.58)}{(0.05)^2} = 374$$

Where: P= Proportion of PLWHA disclosing their sero-status

d = margin of error (5%)

Z $\alpha/2$ = standard normal variable at 95% confidence level (1.96).

Adding 10 % non response rate

Final sample size N= 411

For Qualitative Study

16 in-depth interviews were conducted from key informants;

These include:-

- 6 Counselors from all Health institutions providing ART services
- 2 ART focal persons from Harari Region Health bureau HIV department
- 2 ART experts from ICAP and HAPCO
- 2 officials and 4 members from Tesfa Goh

4.4.2 Sampling technique

For the quantitative study

- All Eight Health institutions in Harar providing ART service were included in the study.
- The number of study units to be assigned to the all eight health facilities was determined using proportional allocation to size based on the total number of PLWHA attending ART clinic for ART use.

- Systematic random sampling was employed to select and approach each study subjects from every selected institution. The sampling fraction (K^{th}) was calculated for each health institution based on their monthly PLWHA flow. This gives (K^{th}) of all selected health institution approximately two. So, every second PLWHA coming for ART use will be included until the allocated number of study subjects for each institution is reached.
- If the study subject comes again for follow-up and didn't fulfill the inclusion criteria he/she was not included in the study; and the next immediate coming PLWHA was interviewed for the study. The selected study subjects refused to participate in the study were considered as non-respondent.

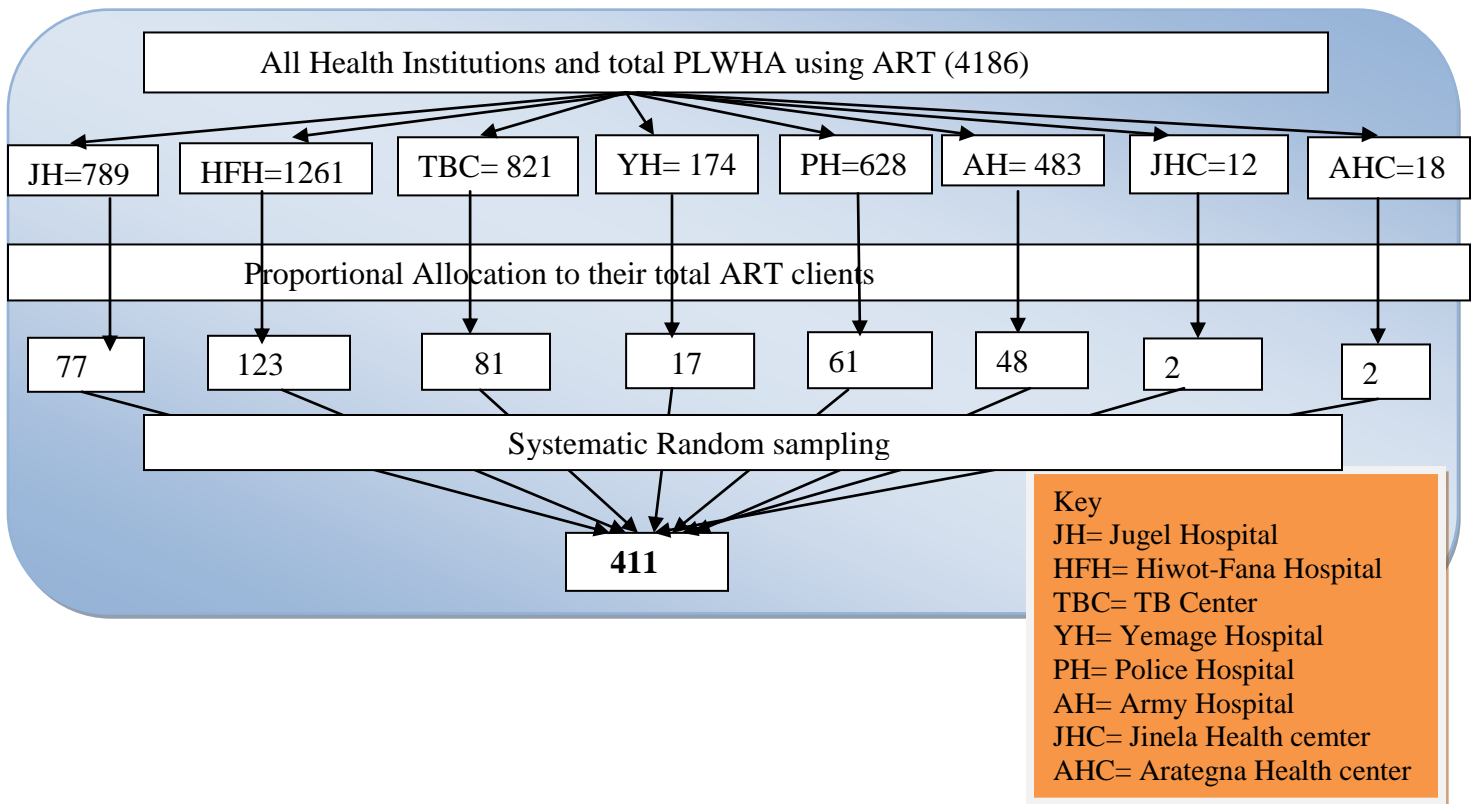


Figure 2:- Schematic presentation of sampling procedure for the selection of study units in ART users attending ART clinics in Harar town, Harari regional state, East Ethiopia; March 2011

For Qualitative Study

Key informants for in-depth interview were included in the study purposively from counselors in ART clinics, ART focal persons from Health bureau, Tesfa Goh, experts from ICAP and HAPCO; because their in-depth information is expected to give optimal insight into an issue about the problem under study.

4.5 Measurement and variables

4.5.1 Data collection instrument

For Quantitative study

A pretested structured interviewer administered questionnaire was used to collect the data which was developed after reviewing relevant literatures and similar studies (60, 61 and 62). The questionnaire was initially prepared in English and then translated in to Amharic language by an individual who had good ability of both languages then again retranslated back to English by another person to check for any inconsistencies. Accordingly necessary modifications were made. The questionnaire contains six parts which include socio-demography, HIV test related, ART and service related, disclosure related, disclosure in relation to ART and Sexual relationship.

For Qualitative study

For the in-depth interview, semi structured interview guide was prepared and the interviews were conducted by the principal investigator. Tape records and note was taken by the investigator and one supervisor to catch the interview points after obtaining their consent. The interviews were held in quit and comfortable place.

4.5.2 Study Variables and measurements

Dependent variable

- HIV status Disclosure to sexual partner

Independent variables

Socio-demographic Variables:

- Age, Sex, Education, Ethnicity, Religion, Marital-status, Occupation and monthly Income

HIV Test related Variables:

- Duration since HIV test, Discussion to make test, Being influenced by others and Objection from others

ART related variables:

- Duration since start of ART, Discussion with others to take ART, Health status during ART initiation and Mistreatment by others

Disclosure related variables:

- Support from others, Witness of other's Disclosure, witness of other's mistreatment, PLWHA membership and Knowledge of Partner's status

Measurements

- The dependent variable for this study is HIV positive status disclosure to a partner, recorded as yes or no.
- The magnitude of HIV status disclosure to sexual partner was calculated from responses given from study subjects.
- Then whether a person has disclosed to other individuals was also assessed. The reasons for disclosure and non-disclosure to different individuals are also probed.
- Socio demographic and economic factors were measured by asking questions on age, sex, educational status, ethnicity, religion, marital-status, occupation and monthly income and recorded as informed by respondents.
- HIV test related variables like discussion, being influenced and objection were recorded as yes/no from response given by study subjects.
- Duration since HIV test and ART was recorded from information given by informant
- ART related variables like discussion and mistreatment by others with others were measured by yes/ no as perceived by respondent.
- Disclosure related variables like support, witness of other's disclosure and Knowledge of Partner's status were measured by yes/no.
- The finding from In-depth interview was translated word by word and triangulated to support the quantitative where necessary and where appropriate.

4.5.3. Data Collection Method

For quantitative

The interview was made immediately after clinic visit is conducted by the counselors themselves, to keep the confidentiality of the information given by the interviewees. Counselors working in ART clinic were selected for data collection for Ethical reasons related to disclosure concerns.

For Qualitative

In-depth interviews were conducted with study population to assess the same aspects of the study objectives in order to improve the validity of the findings and conclusions made.

4.6. Data processing & analysis

For quantitative data

After data collection, each questionnaire was checked for completeness, clarity and consistency. And then code was given before data entry. After data were cleaned, explored for outliers and missed values, then entered and analyzed using SPSS version 16.0 statistical packages. Different frequency tables, graphs and descriptive summaries used to describe the study variables. Bivariate analysis performed to see the existence of association between dependent and independent variables. Binary Logistic regression performed to assess the strength of association between each major independent variable and the outcome variables.

Then those variables that showed significant association with the outcome variable included in a single model and multiple logistic regressions performed. Odds ratio with its P- value and confidence interval reported in each logistic regression analysis.

For Qualitative data

After the in-depth interview, the data were transcribed word by word into the local language and then translated into English language. Then similar responses grouped and summarized based the key variables of the study. Finally results of the qualitative study were triangulated and presented with the quantitative results.

4.7. Operational Definitions

The operational definitions were adapted from different literatures (58-61) and modified accordingly to the local context.

- Disclosure: - The act of informing HIV status of an infected person to any other person excluding Health professionals providing direct service.
- ART user: - A Person who has started/taken the medications and is still taking.
- Difficulty: - Any condition for ART user that causes problem, trouble, or situation that is hard to endure.
- Sexual partner:- Is a person with whom one engages in sexual acts within past one year and perceived by the respondent as boy/girl friend or spouse; irrespective of whether they are married or not; and also irrespective of whether they live in the same house or not.

- Friend: - Somebody with no blood relationship, but who have good social, cultural & economic relationship & trust with each other.
- Family member: - Any person who is either of father, mother, sister, brother, daughter or son of someone else; irrespective of whether they live together or not.
- Relative: - Anyone out of family member who is perceived of having blood relationship or ties.
- Mistreatment: - It is any act of treating or considering somebody roughly or badly or in the way that individual doesn't like including stigma and discrimination.
- Support: - Any social, economic, psychological, financial help or assistance.
- Influence: - Act of affecting somebody's thinking or actions by means of argument or persuading to do or accept something.
- Discussion:- A talk between two or more people about a subject to reach a conclusion or decision
- Objection:- A feeling or expression of opposition about what will be done or planned

4.8. Data Quality Control

To assure the data quality, data collection tool was prepared after intensive reviewing of relevant literatures and related studies. Initially the questionnaire was prepared in English then translated to Amharic and back to English by different individuals who had good ability of both languages. Before the actual data collection, the quantitative questionnaire was pre-tested on 10% (41 PLWHA) of the total sample size outside the study area (In Diredawa). The purpose of the pre-testing was to ensure that the respondents are able to understand the questions and to check the wording, logic and skip order of the questions in a sensible way to the respondents. Amendments were made accordingly after pre-testing.

Training was given for both data collectors and supervisors by the principal investigator. Eight trained employed clinical nurse graduates who are counselors in the ART clinics were recruited for data collection. Two BSC nurse supervisors were also recruited and participated throughout the data collection.

For data collectors and supervisors training were given for two days by the principal investigator to make them familiar with the data collection tool on objective of the study, discussing contents of the questionnaire and issues of maintaining confidentiality.

The Principal investigator and supervisors had the responsibility of coordinating the overall data collection process and discussing about the purpose of the study with data collectors. Based on the willingness of study participants and after informed consent was obtained from each respondent, interviewer started face to face interview from the pre-tested questionnaire to collect the data. Finally completed questionnaires were returned to the supervisors.

4.9. Ethical Consideration

The study obtained Ethical clearance from ethical committee of Jimma University, College of Public Health and Medical Science. Permission was obtained from Regional health Bureau, all the 8 Health institutions, PLWHA associations, and organizations working on HIV/AIDS after discussion of the purpose of the study. The data collectors were also counselors working in the ART clinic. For all participants, the aim of the study were explained and reassured that their responses be used only for research purposes and remain confidential. Similarly after clear discussion about the purpose of the study made informed consent was obtained from each study subjects while the study subjects right to refuse was also respected. To assure the confidentiality of study subject's response, writing their names or any identification in the questionnaire were not required.

4.10. Dissemination of the Study Result

The final result of this study will be presented to Jimma University and disseminated to Harari regional health bureau, HAPCO office, ICAP Harar branch, PLWHA association, and all the 8 Health institutions which were participated in this study, and other concerned governmental and nongovernmental organization. Effort will also be made to publish this finding in peer reviewed scientific journals.

Chapter Five: Results

5.1. Socio-demographic characteristics of the respondents

A total of 388 ART users were participated in the study while 23 refused to participate in the study, making the response rate of 94.4%. The mean (\pm SD) age was 35.32(\pm 9.5) years with the median age of 34.5 years. The age of all study population ranged from 18 to 65 years. Regarding sex of the respondents majority 232(59.85%) were females.

The permanent address of the majority 293(75.5%) of the respondents were Harar. More than half 224(57.7%) of the respondents were ethnically Amhara followed by Oromo 109(28.1%). Concerning marital status, 187(48.2%) were married and 65(16.8%) were widowed. The respondents were also asked to whether they have children or not. One hundred and twenty five (32.2%) reported they have no children followed by 122(31.4%) of them two children. Nearly two third of the respondents reported they belong to Orthodox religious group comprising 249(64.2%) of all total respondents. Elementary and Secondary/Preparatory accounted equally for 118(30.4%) respondents regarding Educational status (Table 1).

Table 1:- Socio-demographic factors of ART users attending ART clinics in Harar town, Harari regional state, East Ethiopia; March 2011

Variables	Frequency	Percent
Sex		
Male	156	40.2
Female	232	59.8
Age in years		
18-20	15	3.9
21-25	28	7.2
26-35	170	43.8
36 and above	175	45.1
Permanent Address		
Harar	293	75.5
Outside Harar	95	24.5
Ethnicity		
Oromo	109	28.1
Amhara	224	57.7
Harari	13	3.4
Gurage	18	4.6
Tigre	12	3.1
Others(Somale, Afar, Wolayta, Silte)	12	3.1

Variables	Frequency	Percent
Marital status		
Married	187	48.2
Single	64	16.5
Widowed	65	16.8
Separated	33	8.5
Divorced	39	10.1
Number of children		
None	125	32.2
One	78	20.1
Two	122	31.4
Three and above	63	16.2
Religion		
Muslim	102	26.3
Orthodox	249	64.2
Protestant	35	9
Catholic	2	0.5
Educational status		
Illiterate	39	10.1
Read and/or write	30	7.7
Elementary	118	30.4
Secondary/Preparatory	118	30.4
Certification and above	83	21.4
Occupation		
Employed worker	159	41
Merchant	59	15.2
Daily laborer	90	23.2
No job	54	13.9
Farmer	5	1.3
House wife	6	1.5
Student	15	3.9
Average Monthly income		
Below 501	233	60
501-999	72	18.6
1000 and above	83	21.4

5.2 HIV test related variables of the respondents

Hundred and eighty eight (48.5%) of the respondents made HIV test before three years. One hundred and eighty one 181(46.6%) made within 6 months to 3 years, while the remaining 19(4.9%) within 6 months prior to study period.

Reasons reported for undertaking HIV test were, 150(38.7%) for VCT, 131(33.8%) for disease diagnosis, 79(20.4%) for PICT, 16 (4.1%) for marriage preparations and the rest 12(3.1%) for visa.

Coming to being influenced by others or not, 215(55.4%) people were influenced by others to undergo HIV test while the other 173(44.6%) were not (Figure 3).

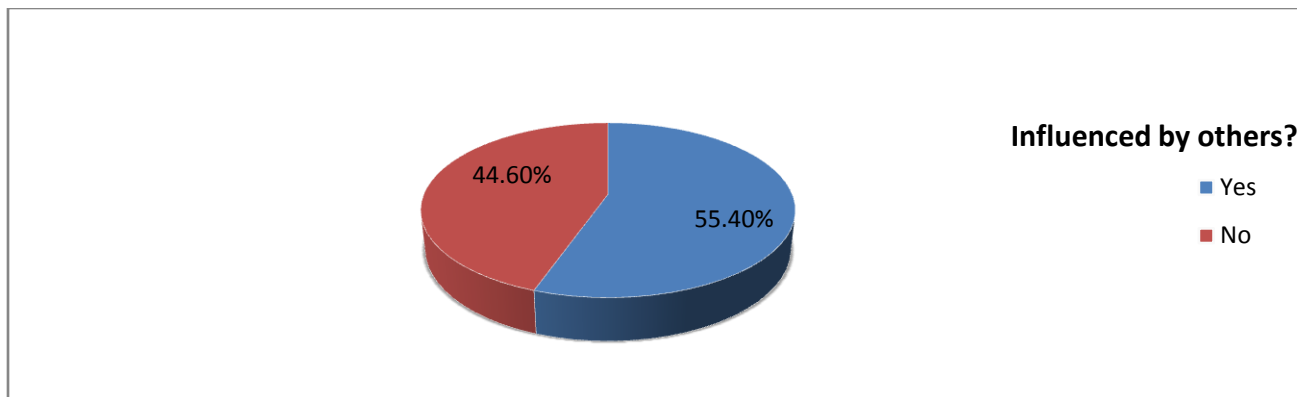


Figure 3:- Percentage of respondents influenced by others to undergo HIV test among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Among 215 people that were influenced by others 51(23.7%) were influenced by their sexual partner, 37(17.2%) by their family members, 32(14.9%) by their friends, 129(60%) by Health professionals and 11(5%) by others (Figure 4).

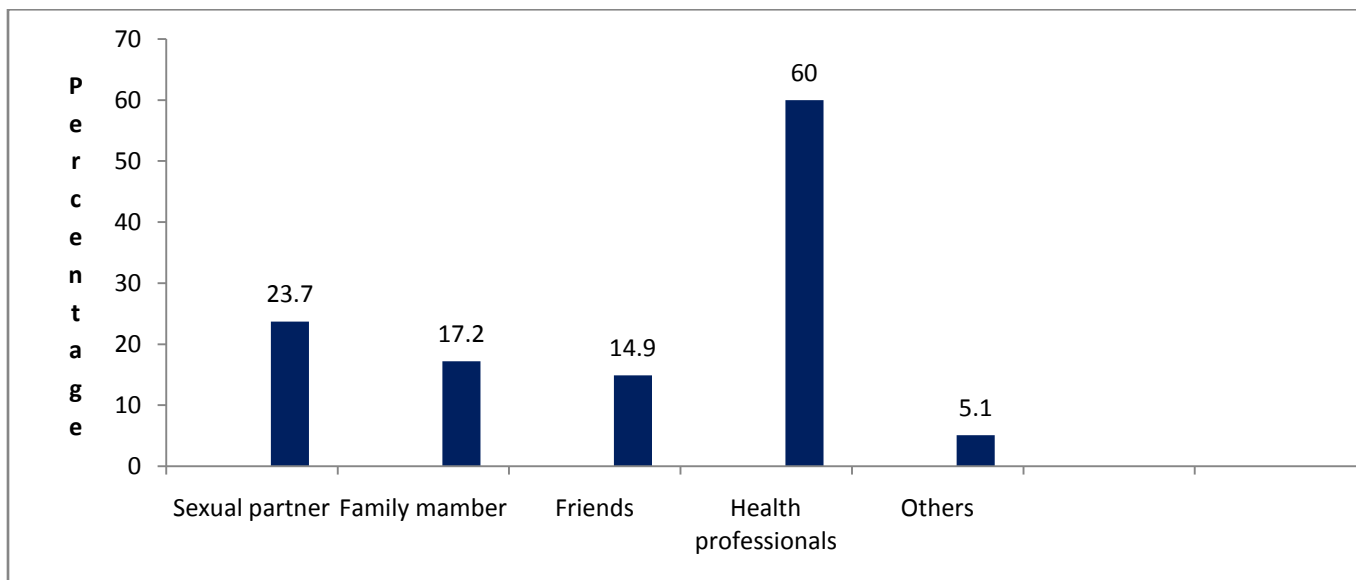


Figure 4:- People who were influencing ART users to undergo HIV test attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

(N.B:- The sum of percentages will add above 100% because multiple options were possible)

Regarding whether the respondents made prior discussion with anyone to undergo HIV test, 256(66%) respondents made discussion and the rest 132(34%) did not (Figure 5).

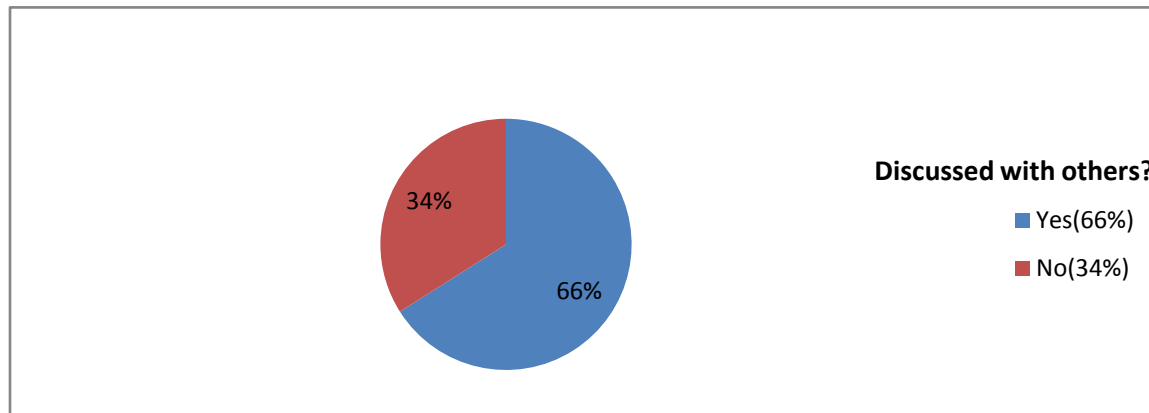


Figure 5:- Prior discussion with others to undergo HIV test among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Among 256 people that have made prior discussion with others to undergo HIV test, 74(28.9%) were with their sexual partner, 54(21.1%) with their Family member, 68(26.6%) with their friends, 34(52.3%) with Health professionals, and 7(2.7%) with their relatives (Table 2).

Table 2:- People in which respondents made discussion with them to undergo HIV test among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

	Frequency	Percentage
Sexual partner	74	28.9
Family member	54	21.1
Friends	68	26.6
Health professionals	134	52.3
Relative	7	2.7

Regarding objection from others to undergo HIV test, the majority 330(85.1%) of the respondents faced no objection while the rest 58 (14.9%) respondents faced.

5.3 ART and service related Variables of the respondents

Regarding duration since ART started, more than half 224(57.7%) of the respondents started ART within 6 months to 3 years prior to the study period. Whereas the rest 121(31.2%) and 43(11.1%) of respondents started ART before 3 years and within 6 months of the study period respectively.

The respondents were asked whether they have been admitted to any Health institution when they started ART and most 292(75.3%) of the respondents replied “No”, while the rest small proportion 96(24.7%) replied “Yes”.

Among all the study subjects participated in this study more than half 200(51.5%) discussed at least with someone about starting ART other than Health professional and 188(48.5%) did not.

From those who discussed with others, 80(40%) respondents were with their sexual partner, 45(22.5%) with their family member, 19(9.5%) with their friends, 34(17%) with their relative, 7(3.5%) with their neighbors, 5(2.5%) with their staff member, 10(5%) with their Religious leader and 3(1.5%) with someone they do not know well(Figure 6).

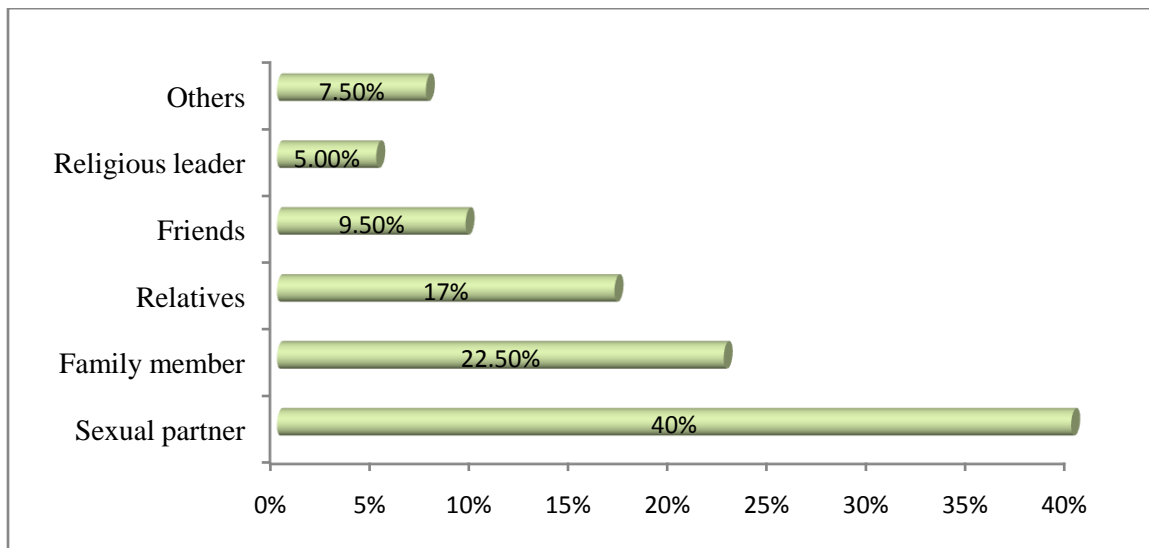


Figure 6:- Percentage distribution of people in which respondents made discussion with them, among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

One of the Key informants said “... *I have to have discussion with my Partner because I am going to live with her.*”

Most 304(78.4%) of the study subjects said they did not face any kind of service related difficulties and 84(21.6%) said they did. Among 84 people faced service related difficulties 45(53.6%) reported mistreatment by Health professionals, 56(66.7%) reported poor service such as no laboratory, 29(34.5%) improper words from Health institution staffs, 39(46.4%) the health professionals do not listen to them

properly, 20(23.8%) health professionals get annoyed at them, 14(16.7%) appointments not comfortable and 4(4.8%) No medications.

One of PLWHA member said” ... *the Health professionals focus only on Prescribing ART and urging us to go away from them. They do not even listen to us. They do not want to discuss and talk with us. Even sometimes we are insulted.*”

Regarding ART related difficulties 241(62.2%) of them faced difficulties while the remaining 147(37.8%) did not. Among those who reported difficulties 75(31.1%) of the respondents said adverse reaction of the ART, 56(23.2%) drug scheduling not comfortable, 74(30.8%) pill burden, 86(35.7%) forgetting, 45(18.7%) being seen by other person, 45(18.7%) dietary interference and 67(27.8%) using other medications (Table 3).

Table 3:- ART and service related difficulties among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Variables	Frequency	Percentage
Service related difficulties(N=388)		
Yes	84	21.6
No	304	78.4
Reported service related difficulties(N=84)		
Poor service	45	66.7
Mistreatment by Health professionals	56	53.6
Health professionals do not listen to them	29	46.4
Improper words	39	34.5
Health professionals get annoyed at them,	20	23.8
Appointments not comfortable	14	16.7
No medications	4	4.8
ART related difficulties(N=388)		
Yes	241	62.2
No	147	37.8
Reported ART related difficulties(N=241)		
Forgetting	75	35.7
Adverse reaction	56	31.1
Pill burden	74	30.8
Drug scheduling	86	23.2
Being seen by other person,	45	18.7
Dietary interference	45	18.7
Using other medications	67	27.8

5.4 Disclosure related variables of the respondents

From the total of 388 study subjects the majority 309(79.6%) disclosed their status for at least someone, while the remaining 79(20.4%) didn't disclose at all; in which 262(67.5%) people disclosed their HIV positive status to their current sexual partner (Table 4).

Table 4:- People in which respondents disclosed their status, among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Disclose to at least someone(N=388)		
Yes	309	79.6
No	79	20.4
Disclosure to sexual partner(N=388)		
Yes	262	67.5
No	126	32.5

Regarding disclosure other than sexual partner, 202(52.1%) study participants disclosed their status for their family member, 135(34.8%) for their friends, 58(14.9%) for their relatives, 34(8.8%) for their Neighbors, 11(2.8%) for Religious leader and 11(2.8%) for others (Figure 7).

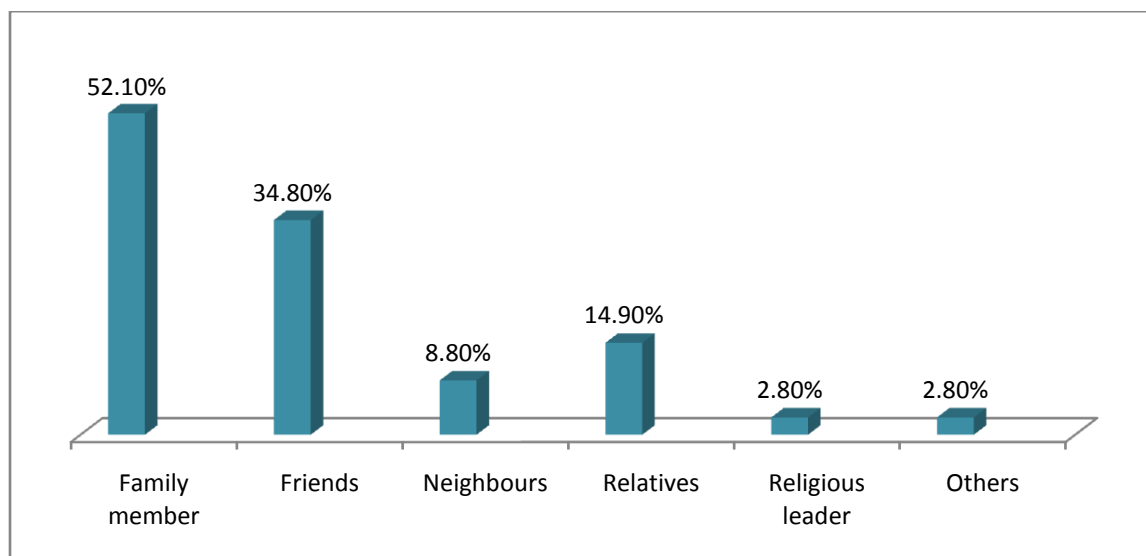


Figure 7:- Disclosure other than sexual partner, among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Although many reasons were given by the 262 participants who have disclosed their status to sexual partner, similar and related reasons are grouped together, hence nine categories of reasons are listed below. 142(54.4%) respondents said “To be transparent”, 147(56.3%) “To get support and help”,

33(12.6%) “To obtain medical care”, 51(19.7%) “To encourage partner to be tested and start ART”, 18(7.1%) “To get psychological relief”, 68(23.3%) “Because it is no more possible to hide”, 35(12%) “Because I consider HIV as any other disease”, 34(11.7%) “To stimulate and teach my partner and others to be tested and start ART like me” and 32(11%) “I was seen while I was taking ART” (Table 5).

From 126 respondents reasons for not disclosing to sexual partners were also explored and grouped as follows. 64(50.8%) people said “Fear of partner’s reaction to disclose”, 21(16.7%) “Fear of separation”, 4(3.2%) “Not to cause upset”, 5(3.9%) “Not to cause worry to partner”, 5(3.9%) “Not to be blamed or criticized”, 2(1.6%) “Not to be labeled as bad person”, 15(11.9%) “We have no such discussion”, 4(3.2%) “Not to be murdered”, 35(27.8%) “Fear of rumour, discrimination and mongering”, 12(9.5%) “Not to be discriminated” and 34(27%) “No need to disclose” (Table 5).

Table 5:- Reasons for disclosing and non-disclosing to sexual partner, among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Reasons for disclosure to sexual partner (N=262)	Frequency	Percentage
To be transparent to others	142	54.2
To get support and help from others	147	56.1
To obtain medical care	33	12.6
To encourage partner to be tested and start ART	51	19.7
To get psychological relief	18	7.1
Because it is no more possible to hide	68	26
Because I consider HIV as any other disease	35	13.4
To stimulate and teach others to be tested and start ART like me	34	13
Someone saw me while I was taking ART	32	12.2
Reasons for non-disclosure to sexual partner (N=126)		
Fear of partner reaction	64	50.8
Fear of separation	21	16.7
Not to cause upset	4	3.2
Not to cause worry to partner	5	3.9
Not to be blamed or criticized	5	3.9
Not to be labeled as bad person”	2	1.6
We have no such discussion	15	11.9
Fear of rumour & discrimination	35	27.8
Not to be murdered	4	3.2
No need to disclose	34	27

Those 79 people who disclosed for no one were asked if they have future plan to disclose. The majority 66(83.5%) of respondents didn't have any plan and the remaining minority 13(16.5%) did have.

Among 309 people disclosed to at least one person 230(74.4%) people disclosed their status for first person before initiation of ART, while the rest 79(25.6%) after initiation of ART.

Concerning the first person respondents disclose, 133(43%) people disclosed for their sexual partner, 125(40.5%) family member, 42(13.6%) friend, 6(1.9%) relative and 3(1%) staff member.

Regarding whether the study participants got any kind of support from others 217(55.9%) of all the 388 respondents got support from others and 171(44.1%) did not.

And 140(36.1%) of all the 388 respondents faced mistreatment from others because people were aware of their status and 248(63.9%) did not.

Among 140 respondents faced mistreatment from others 14(10.1%) people were from by their sexual partner, 30(21.7%) by family member, 44(31.9%) by friends, 37(26.8%) by relative, 56(40.6%) Neighbors & villagers, 30(21.7%) staff member, 2(1.4%) by Religious leaders and 8(5.8%) stranger. From all the respondents 164(42.3%) were PLWHA association members and 224(57.7%) were not.

The respondents were also asked of mistreatment they witnessed of any other person living with HIV. 94(24.4%) study participants witnessed while 294(75.6%) did not. Regarding witness of other's disclosure, 260(67.1%) respondents witnessed and 128(32.9%) did not (Table 6).

Table 6:- Table showing witness of other's disclosure and mistreatment, among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia; March 2011

Variables	Frequency	Percentage
Witness of other's mistreatment(N=388)		
Yes	94	24.4
No	294	75.6
Witness of other's disclosure(N=388)		
Yes	260	67.1
No	128	32.9

5.6 Sexual partner related

Two hundred and sixty three respondents (68%) knew their partner's HIV status, but 83(21.4%) did not, while the rest 42(10.5%) did not respond. And 172(65.5%) respondents have HIV positive partner, 42(16%) HIV negative partner and 49(18.4%) did not respond.

The respondents lastly were asked whether they have made sexual intercourse after HIV test but before disclosure and 53(13.4%) respondents did it, while 301(78.2%) did not & 34(8.4%) did not respond.

5.7 Factors associated with disclosure to sexual partner

Bivariate and multivariate logistic regression analysis was done to analyze factors associated with disclosure to sexual partner. On the bivariate analysis disclosure to sexual partner was associated with age, ethnicity, marital status, occupation, monthly income, educational status, duration since HIV test, prior discussion to undergo HIV test, being influenced by others to undergo HIV test, objection from others for HIV test, duration since ART initiation, discussion to start ART, mistreatment by others, support from others, witness of other's mistreatment, witness of other's disclosure, PLWHA membership and knowledge of partner's status.

But, on the multivariate analysis marital status, duration since HIV test, being influenced by others to undergo HIV test, objection from others for HIV test, mistreatment by others, support from others, witness of other's disclosure and knowledge of partner's status have significant association with disclosure to sexual partner.

Respondents whose age were 36 years and above were more likely to disclose their HIV serostatus to sexual partner than those whose age were 18-20 years [OR=2.9 (1.009 - 8.644)].

Concerning marital status those who were married were more likely to disclose than those who were divorced [OR=35.8 (13.735 - 93.314)]. Respondents who were merchants [OR=0.32(0.170 - 0.610)], daily laborer [OR=0.493(0.278 - 0.876)], No job [OR=0.396(0.204 - 0.767)], farmer [OR= 0.068(0.007 - 0.629)] and House wife [OR=0.136(0.024 - 0.774)] were less likely to disclose compared to Employed workers. Respondents who had estimated average monthly income of 501 to 999 Birr [OR=2.05(1.106 - 3.791)] were more likely to disclose than those who had 500 and below (Table7).

Table 7:- Association of socio- demographic variables and disclosure to sexual partner among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia, 2011

Variables	Disclosure to sexual partner		Crude OR (95% CI)
	Yes (%)	No (%)	
Age in years			
18-20	8(3.1)	7(5.6)	1
21-25	14(5.3)	14(11.1)	1.010(0.287, 3.549)
26-35	105(40.1)	65(55.2)	1.379(0.478, 3.981)
36+	135(51.5)	40(31.7)	2.953(1.009, 8.644)*
Ethnicity			
Oromo	69(26.4)	40(31.5)	1
Amhara	159(60.9)	65(51.2)	1.281(0.787, 2.086)
Harari	12(4.6)	1(0.8)	6.423(0.804, 51.290)
Gurage	7(2.7)	11(8.7)	0.341(0.122, 0.950)*
Tigre	6(2.3)	6(4.7)	0.535(0.161, 1.774)
Others ^{\$}	8(3.1)	4(3.1)	1.070(0.303, 3.786)
Marital status			
Married	179(68.8)	8(6.2)	35.8(13.735, 93.314)*
Single	17(6.5)	47(36.7)	0.58(0.247, 1.355)
Widowed	29(11.2)	36(28.1)	1.37(0.611, 3.079)
Separated	21(8.1)	12(9.4)	2.8(1.073, 7.304)*
Divorced	14(5.4)	25(19.5)	1
Educational status			
Illiterate	22(8.4)	17(13.4)	1
Read and/or write	13(5)	17(13.4)	0.591(0.226, 1.544)
Elementary	66(25.3)	52(40.9)	0.981(0.473, 2.035)
Secondary/Preparatory	90(34.5)	28(22)	2.484(1.159, 5.321)*
Certificate and above	70(26.8)	13(10.2)	4.161(1.749, 9.898)*
Occupation			
Employed worker	124(47.5)	35(27.6)	1
Merchant	32(12.3)	27(21.3)	0.322(0.170,0.610)*
Daily laborer	58(22.2)	32(25.2)	0.493(0.278, 0.876)*
No job	32(12.3)	22(17.3)	0.396(0.204, 0.767)*
Farmer	1(0.4)	4(3.1)	0.068(0.007, 0.629)*
House wife	2(0.8)	4(3.1)	0.136(0.024, 0.774)*
Student	12(4.6)	3(2.4)	1.088(0.29, 4.076)
Average Monthly income			
Below 501	148(56.5)	85(67.5)	1
501-999	55(21)	17(13.5)	2.048(1.106, 3.791)*
1000 and above	59(22.5)	24(19)	1.438(0.835, 2.478)

*Statistically significant (p<0.05).

^{\$}- Silte, Wolayta and Afar

On Bivariate analysis all HIV test related variables have shown significant association with status disclosure to sexual partner. Respondents who made HIV test before 3 years were more likely to disclose than those who made HIV test less than 6 months [OR=3.18(1.191 - 8.488)]. On the other hand study participants who were influenced by others to undergo HIV test were also more likely to disclose than those who were not influenced [OR=2.08 (1.348 - 3.189)]. Respondents that made prior discussion with others to undergo HIV test were also more likely to disclose compared to those who do not made discussion [OR=2.02(1.3 - 3.138)]. Those who have faced objection from others to undergo HIV test were less likely to disclose to their sexual partner than who did not [OR=0.3(0.17, 0.535)] (Table 8).

Table 8:- Association of HIV test related variables and disclosure to sexual partner among ART users in PLWHA attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia, 2011

Variables	Disclosure to sexual partner		Crude OR (95% CI)
	Yes (%)	No (%)	
Duration since HIV test			
< 6 months	11(4.2)	8(6.3)	1
6 months – 3 years	96(36.8)	85(66.9)	0.840(0.323, 2.186)
>3 years	154(59)	34(26.8)	3.18(1.191, 8.488)*
Influenced by others to HIV test			
Yes	162(61.8)	53(42.1)	2.08 (1.348, 3.189)*
No	100(38.2)	73(57.9)	1
Prior discussion to HIV test			
Yes	188(71.8)	68(54)	2.02(1.3, 3.138)*
No	74(28.2)	58(46)	1
Objection from others			
Yes	25(9.6)	33(26)	0.3(0.17, 0.535)*
No	236(90.4)	94(74)	1

*Statistically significant ($p < 0.05$).

Regarding duration since ART started, those whose duration of ART initiation was less than 6 months were less likely to disclose to sexual partner than whose duration of ART initiation were 3 years or before [OR=0.32(0.118 - 0.840)]; and those in which duration of ART were 6 months to 3 years were less likely to disclose to their sexual partner compared to those who started ART 3 years or before [OR=0.26(0.165, 0.422)].

Concerning discussion with others regarding ART initiation, respondents who were discussed with others were more likely to disclose compared to those who didn't discuss with others [OR=2.19(1.416 -

3.371)]. Respondents who didn't face mistreatment from others were higher to disclose than those who did [OR=1.83(1.186 - 2.838)] (Table 9).

Table 9:- Association of ART related variables and sero-status disclosure to sexual partner among ART users in PLWHA attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia, 2011

Variables	Disclosure to sexual partner		Crude OR (95% CI)
	Yes (%)	No (%)	
Duration since ART started			
< 6 months	19(7.3)	24(18.8)	0.32(0.118, 0.840)*
6 months – 3 years	134(51.5)	90(70.3)	0.26(0.165, 0.422)*
>3 years	107(41.2)	14(10.9)	1
Discussion with others to start ART			
Yes	152(58)	48(38.1)	2.19(1.416, 3.371)*
No	110(42)	78(61.9)	1
Mistreatment from others			
Yes	82(31.3)	58(46)	1
No	180(68.7)	68(54)	1.83(1.186, 2.838)*

*Statistically significant (p<0.05).

All variables under disclosure related were significantly associated with disclosure to sexual partner. Those respondents obtained any kind of support from others were slightly higher to disclose to sexual partner than who did not [OR=3.18(2.046 - 4.943)]. Those who witnessed other's disclosure were more likely to disclose to sexual partner compared to those who did not [OR=2.62(1.573 - 4.379)]. Those who did not witness other's mistreatment were more likely to disclose than who witnessed other's mistreatment [OR=0.7(6.176 - 18.767)]. People who were PLWHA members were more likely to disclose than those who were not [OR=3.9(2.369 - 6.246)]. Those who didn't know their partner's status were less likely to disclose than "No response group" [OR=0.038(0.011 - 0.127)] (Table 10).

Table 10:- Association of Disclosure related variables and disclosure to sexual partner among ART users attending ART clinics in Harar town, Harari regional state, Eastern Ethiopia, 2011

Variables	Disclosure to sexual partner		Crude OR (95% CI)
	Yes (%)	No (%)	
Support from others			
Yes	170(64.9)	47(37.3)	3.18(2.046, 4.943)*
No	92(35.1)	79(62.7)	1
Witness of other's disclosure			

Yes	201(63.1)	25(56)	2.625(1.573, 4.379)*
No	142(36.9)	20(44)	1
Witness of other's mistreatment			
Yes	38(9.9)	54(54.2)	1
No	250(90.1)	46(45.8)	10.765(6.176, 18.767)*
PLWHA membership			
Yes	100(51.5)	70(23)	3.847(2.369, 6.246)*
No	94(48.5)	122(77)	1
Knowledge of partner's status			
Yes	166(85.6)	38(19.7)	2.634(0.938, 7.382)
No	6(3.1)	140(71.8)	0.038(0.011, 0.127)*
No response	22(11.3)	16(8.5)	1

*Statistically significant ($p < 0.05$).

5.8 Multiple Logistic regressions

Variables that are finally associated with status disclosure to sexual partner by multiple logistic regressions are marital status, duration since HIV test was made, being influenced by others to HIV test, objection from others to undergo HIV test, support from others, mistreatment from others, knowledge of partner's status and Witness of other's disclosure (Table 10).

Table 11:- Parameter estimates from multivariate logistic regression model predicting the probability of status disclosure among ART users attending ART clinics in Harar town, Eastern Ethiopia, 2011

Variables	Disclosure to sexual partner		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes (%)	No (%)		
Marital status				
Married	179(68.8%)	8(6.2%)	35.8(13.735, 93.314)*	20.2(4.523, 90.107)**
Single	17(6.5%)	47(36.7%)	0.58(0.247, 1.355)	0.3(0.072, 1.273)
Widowed	29(11.2%)	36(28.1%)	1.37(0.611, 3.079)	3.45(0.812, 14.6)
Separated	21(8/1%)	12(9.4%)	2.8(1.073, 7.304)*	0.86(0.193, 3.867)
Divorced	14(5.4%)	25(19.5%)	1	1
Duration since HIV test				
< 6 months	11(4.2%)	8(6.3%)	0.32(0.118, 0.840)*	0.42(0.188, 26.786)
6 months – 3 years	96(36.8%)	85(66.9%)	0.26(0.165, 0.422)*	0.39(0.169, 0.906)**
>3 years	154(59%)	34(26.8%)	1	1
Influenced by others to HIV test				
Yes	162(61.8%)	53(42.1%)	2.08 (1.348, 3.189)*	2.33(2.125, 4.882)**
No	100(38.2%)	73(57.9%)	1	1
Objection from others to HIV test				

Yes	25(9.6%)	33(26%)	0.3(0.17, 0.535)*	0.17(0.055, 0.513)**
No	236(90.4%)	94(74%)	1	1
Mistreatment from others				
Yes	82(31.3%)	58(46%)	0.54(0.352, 0.843)*	0.12(0.015, 0.014)**
No	180(68.7%)	68(54%)	1	1
Support from others				
Yes	170(64.9%)	47(37.3%)	3.18(2.046, 4.943)*	4.49(1.622, 12.454)**
No	92(64.9%)	79(62.7%)	1	1
Witness of other's disclosure				
Yes	201(63.1)	25(56)	2.625(1.573, 4.379)*	1.47(1.40, 5.388)**
No	142(36.9)	20(44)	1	1
Knowledge of partner's status				
Yes	166(85.6)	38(19.7)	2.631(0.938, 7.382)	2.94(0.181, 4.902)
No	6(3.1)	140(71.8)	0.038(0.011, 0.127)*	0.02(0.003, 0.131)**
No response	22(11.3)	16(8.5)	1	1

*/ ** statistically significant (P<0.05)

Concerning marital status those who were married were more likely to disclose to their sexual partner than who were divorced [AOR=20.2(4.523, 90.107)], whereas those who started ART within 6 months to 3 years prior to study period were less likely to disclose to their sexual partner than those who used ART for 3 years or more [AOR=0.39(0.169, 0.906)]. Those individuals influenced by others to undergo HIV test were higher to disclose to sexual partner than who did not [AOR=2.33(2.125, 4.882)]. In contrary, respondents who faced objection to undergo HIV test were less likely to disclose to sexual partner than those who did not [AOR=0.17(0.055, 0.513)]. Those people who were mistreated by others were less likely to disclose to sexual partner compared to who did not [AOR=0.12 (0.015, 0.014)]. Respondents obtained any kind of support from others were more likely to disclose to sexual partner than those who did not obtain [AOR=4.49(1.622, 12.454)]. Study subjects who witnessed other's disclosure were higher to disclose to sexual partner than who did not [AOR=1.47(1.40, 5.388)]. Study participants who didn't know partner's status were less likely to disclose than who gave no response [AOR=0.02(0.003, 0.131)].

Chapter 6:- Discussion

The current study focuses on determining magnitude, reasons for disclosure & nondisclosure and associated factors of HIV status to a sexual partner among service users in all Harar town ART clinics, Harari Region, Eastern Ethiopia.

The general level of disclosure in this study was, around 79.6% disclosed to at least for one person. This study is in line with study conducted in South-Africa, 77.1% (56); but it is lower than study conducted in Nigeria, 90% (70), Uganda, 95% (58) and Jimma, 94.5% (60). These differences might be due to socio-cultural and economic variations among the study population. The other possible explanation for variation could be, in the former studies the study population comprised population from the same study site, whereas in this study although the majority (75.5%) of the study population are from Harar, the remaining 24.5% were from outside Harar, coming from cities like Haremaya, Jijiga, Diredawa, Ogaden and others. Most of these individuals come to Harar for fear of their disclosure. However this is far higher than reported from Addis Ababa, 60.5% (6) and reported in Uganda 50%, (57).

One of the ART counselors said, “... *There are many clients coming from nearby cities and far. Even, some come as far as 300 KM from Harar. Because they want their HIV status to keep secret...*”

Concerning disclosure to one's partner, this study confirms that most (67.5%) participants were disclosed their HIV positive status to their sexual partner: around 32.5% of the people interviewed in this study did not disclose their status to their sexual partner. This is higher than Nigeria study in which, 10% did not disclose their status to their sexual partner (70) and 9.2% in Jimma (60). The higher rate of non-disclosure in this study may be attributed to the presence PLWHA from other sites in order to keep their serostatus secret and socio-cultural differences.

One of PLWHA association member said, “...*However mistreatments, stigma and discrimination are decreasing, many PLWHA do not want to disclose because still mistreatments to them is existing including from Health professionals*”.

This study also showed that people disclose their status more likely to their sexual partner (67.5%) compared to family member (52.1%). This is in agreement with study done in Tanzania (69). This might be due to seeking of support and help from others specially those who are living with them.

One PLWHA association member said, “... *I don't have anyone except my partner who provides me every support needed. Although so painful I have no choice, but to disclose*”.

Despite the results found in this study, some (25.6%) of the disclosures were after initiation of ART, and few of these individuals (13.4%) had at least one sexual contact with their sexual partner before disclosure. This raises the possibility of transmission risk if condoms were not used and may limit the beneficial aspect of disclosure, perhaps putting the partner at risk of infection or re-infection. This may lead to difficulty in a risk reduction plans.

In comparable to what is reported in Jimma (60), in this study 65.5% reported having HIV positive partner and a significant proportion (21.4%) of the respondents did not know their partner's HIV status. The non-disclosure of the partners might be due to perception that the partner is already infected or fear of abuse by the partner & others. Still there is risk of HIV transmission in which the uninfected partners passively acquires the infection.

The reasons given for nondisclosure were fear of partner's reaction, not wanting to worry their partner, fear of being blamed and criticized, no such discussion, fear of rumor, and fear of being physically abused. This is in agreement with other studies in Uganda, Jimma and Tanzania (57, 60, 64).

According to this study 20.4% did not disclose to anyone; while 17 % of all respondents even did not have a plan to disclose. However, one cannot rule out the possibility of shared fatalism in which the uninfected partners passively acquires the infection. This is supported by qualitative study in which one key-informant said, “... *I don't want to disclose my status until the society stops mistreatment to PLWHA.*”

The reasons given for disclosure reported on this study such as to be transparent, to get support and help from others, to obtain medical care, to encourage partner to be tested and start ART, to get psychological relief, because it is no more possible to hide, because I consider HIV as any other disease, to stimulate and teach others to be tested and start ART like me are also in consistent with other studies in Uganda, Kenya, Jimma and Hawassa (57,58, 60, 62).

In this study people who were in ~~separated~~ or divorced relationship were less likely to disclose their HIV positive status to their sexual partner than those married. This is in agreement with other studies in Hawassa (62). One possible explanation for this is a difference in sense of responsibility. In one study, HIV positive individuals reported that they had a greater sense of responsibility to disclose toward partners with whom there was a shared long term emotional relationship. As a person stays long time with partner, this sense of responsibility will be higher (79). In contrast to this study finding, a research in Uganda showed people who were not married were more likely to disclose their HIV positive status (57). The variation could be due to Socio economic and cultural variation surrounding the respondents of different study area.

There was a statistically significant association between duration of knowing sero-status and disclosure in this study. Respondent who were on ART for 6 months up to 3 years were less likely to disclose than 3 years and above [AOR=0.39(0.169 - 0.906)]. This might indicate that PLWHA taking ART for longer period might be more confident with the therapy they are taking and are less concerned disclosing their sero-status. This is consistent with the finding of a statistically significant association observed between duration of sero-status and disclosure concern in other study in Jimma (65).

Being influenced about HIV testing with sexual partner and others is significantly associated with disclosure [AOR=2.33(2.125, 4.882)]. This might help individuals to anticipate a partner's reaction and would give them an opportunity to raise the issue again and disclose their result. Similar findings have been reported in other studies (73, 74).

This study also showed that objection to undergo HIV test is significantly associated with status disclosure to sexual partner. Those who were objected were less likely to disclose [OR=0.17(0.055, 0.513)]. This might be due the fact that mistrust and expectation of negative consequences could follow the objection.

The mistreatment related to people's awareness of HIV status associated with significant barriers to disclosing one's HIV infection status. People facing mistreatment were less likely to disclose to sexual partner than who did not [AOR=0.12(0.015 - 0.014)]. And respondents who had ever witnessed other's disclosure were more likely to disclose their HIV status [AOR=1.47(1.40, 5.388)]. These cases are also true in studies conducted in Uganda, Jimma and Tanzania (57, 60 & 64). This might be implication that people facing mistreatment will also expect further mistreatment which may impede them from disclosure. In contrast to this, people witnessing disclosure might be encouraged to disclose because they witnessed their peers considering HIV positive status as normal or any other disease.

In current study more than half of respondents got support from others and they were more likely to disclose relative to those who did not [OR=4.49(1.622 - 12.454)]. This is in agreement with study conducted in South Africa (68). This might be an indication that people who got support from others especially from their sexual partner might build a trust that disclosure wouldn't end up with negative consequences or reactions from the opposite side.

The results of this study are in agreement with many others [61-62, 75-78,] in that knowing a partner's HIV status was found to be associated with the disclosure of one's own status to a partner. Respondents that reported not knowing their partner's HIV status were less likely to disclose to a partner in comparison with those who did know their partner's status [AOR=0.02(0.003 - 0.131)]. This may be an implication that individuals who know their partner's HIV status have at least had a discussion about HIV testing; this might help them towards disclosure.

Strength and Limitation of the Study

Strengths

- The study has used both qualitative and quantitative method of data collection to triangulate the findings.
- In order to improve the quality of data collection tool pretest was conducted in other nearby city (Direedawa) that has similar status.
- Probability sampling technique was employed

- All ART clinics in Harar town were included in the study
- Service related factors including difficulties faced by PLWHA in Health institutions were assessed by using both quantitative and qualitative method of data collection which could have been equally important to identify the problems in addition to approaching clients.
- The findings of this study can be used as base line information for other researchers.

Limitations

- Because this study deals with too personal and sensitive issues getting real answer may in some instances be difficult.
- There may be social desirability bias
- Cross sectional nature of the study
- It is difficult to generalize the result of this study for all ART users in the study area, since the data was collected from ART users in institutions serving large number of population of Harar and surrounding.

Chapter: 7. Conclusion and Recommendations

7.1. Conclusion

79.6% of all respondents disclosed their status at least for someone. 67.5% disclosed to their current sexual partner and 52.1% to their family member. Main reasons to disclose were to be transparent to others and to obtain support and help from others. 20.4% did not disclose to anyone; while 17 % of all respondents even did not have a plan to disclose. Main reasons for nondisclosure were fear of partner's reaction and fear of rumour & discrimination. 68% knew their partner's HIV status while 16% had HIV negative partner. 13.4% made sexual intercourse before disclosure. Among people faced service related difficulties, 53.6% reported mistreatment by Health professionals.

Marital status, duration since HIV test was made, being influenced by others to HIV test, objection from others to undergo HIV test, support from others, mistreatment from others, Witness of other's disclosure and knowledge of partner's status were variables significantly associated with status disclosure to sexual partner.

7.2. Recommendations

Based on the findings the following recommendations are forwarded.

Ministry of Health and other stakeholders working on HIV

- Ministry of health has to consider the issue of HIV status disclosure in its national service delivery, if HIV spread is needed to be prevented and controlled.
- Ministry of Health (MOH) and other responsible bodies should design and strengthen IEC/BCC intervention and promotion activities related to disclosure concerns. This will have a paramount importance to raise disclosure concerns in PLWHA, Health professionals and society as a general.
- MOH and NGOs should give training and refreshment courses for service providers about disclosure concerns.

Regional health bureau

- The regional Health bureau with its partners should also design and strengthen IEC/BCC intervention and promotion activities related to disclosure concerns

- The regional health bureau has to build the capacity of the Health professionals those working in HIV related areas in order to equip them with professional as well as practical skills to deal with HIV infected peoples.
- The regional Health Bureau should focus not only on ART treatment, but also psychosocial care and support which is also essential part of HIV treatment, whose without it complete treatment and prevention strategies are impossible.

Health service providers

- Should not only focus on treatment, but also psychosocial care, in which many study participants said it is missing, but important.
- They should work extensively on discussing and bringing change among PLWHA regarding disclosure in HIV infected people.

Other relevant bodies

- Other stake holders working on HIV have to consider disclosure concerns???
- Any interested bodies can do further comprehensive research incorporating effect of ART on disclosure with prospective design to determine the rate, outcomes and determinants of HIV positive status disclosure.

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Annex

Questionnaire

Informed Consent

Dear Respondent:

My name is _____ I am working in research team of Jimma University, College of Public Health and Medical sciences and Department of Family and population Health. I am here to study about HIV status disclosure and associated factors among PLWHA using ART in Harar town Health institutions and you are chosen to participate in this study. You are selected and included in the study as part of the sample population to complete the questionnaire designed by the researcher.

The information obtained in this study will be used only for research purposes to generate important information HIV status disclosure to identify the determinant factors which are used to improve the

service provision and to achieve changes in the service utilization for prevention and control of HIV/AIDS as a general.

The study will involve various personal and sexual issues of individuals. In order to attain this study objectives your good will and kindly participation is needed. Confidentiality is strictly protected and none of your response will be reported separately. Therefore, there is no need to write your names or House ID numbers on these questionnaires. It is your right to participate or to refuse in this study. And you can drop any individual question or the whole questionnaire. But your participation and contribution in the study is very important to come up with important findings which may help local health planners to intervene the problem locally. So please take a few minutes to answer to the questions.

Do you have any opinion regarding this study?

Do you agree to participate in this study?

Yes, continue

No, thank you!

Questionnaire code number _____

Name of the data collector _____ Sign _____ Date _____

Name of the supervisor _____ Sign _____ Date _____

PART I. Socio-demographic and Personal Information

S.N	Questions	Responses and coding	Skip to
Q101	Age	_____ years 88. Don't know 99. No response	
Q102	Sex	1. Male 2. Female	
Q103	Permanent address	1. Harar town 2. Out of Harar	
Q104	Ethnicity	1. Oromo 2. Amhara 3. Harari 4. Somale	

		5. Gurage 6. Tigre 7. Other, Specify_____	
Q105	Marital Status	1. Married 2. Single 3. Widowed 4. Separated 5. Divorced	
Q106	Number of Children you have?	1. None 3. Two 2. One 4. Three or more	
Q107	Religion	1. Muslim 4. Catholic 2. Orthodox 5. Other, specify_____ 3. Protestant	
Q108	Educational status	1. Illiterate 2. Read &/or write but no formal education 3. Elementary(1-8 grade) 4. Secondary (9-12 by Old Curriculum or 9-10 by New curriculum) 5. Preparatory(11-12 by new curriculum) 6. Any certification below diploma 7. Diploma 8. Degree and above	
Q109	Occupation	1. Employed 2. Merchant 3. Daily laborer 4. Have no job 5. Others, specify_____	
Q110	Estimated Monthly income in Ethiopian Birr	_____ Birr	
Q111	If yes, what? (Multiple responses	1. Chat 2. Alcohol	

	possible)	3. Smoking 4. Drugs 5. Other, specify_____	
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Part II: - HIV Test related questions

S.N	Questions	Responses and coding	Skip to
Q201	When have you made HIV test?	(_____ Month _____year in E.C) 88. Don't remember 99. No response	
Q202	Why have you made HIV test ?	1. VCT 2. PICT 3. Because of Sickness(For diagnosis) 4. Premarital preparation 5. Travel/Visa 6. Other, specify_____	
Q203	Have you been influenced by anyone to undergo HIV test?	1. Yes 2. No _____→	Q205
Q204	If yes, by whom? (Multiple responses possible)	1. Sexual Partner 2. Family member 3. Friend 4. Health professional 5. Relative 6. Other, specify_____	
Q205	Have you made prior discussion with anyone to undergo HIV test?	1. Yes 2. No _____→	Q301
Q206	If yes, with whom? (Multiple responses possible)	1. Sexual Partner 2. Family member 3. Friend 4. Health professional 5. Relative	

		6. Other, specify_____	
Q207	If yes, what was the response?	1.They encourage you 2.They object you 3. Neutral (No response)	

Part III: - ART and Service-Related Questions

S.N	Questions	Responses and coding	Skip to
Q301	When did you start ART?	(__ Month_____ year in E.C) 88. Don't remember 99. No response	
Q302	Have you been admitted to any health institution just when you start ART?	1. Yes 2. No	
Q303	Have you discussed with anyone about starting ART other than health professionals?	1. Yes 2. No _____	→ Q305
Q304	If yes, with whom? (Multiple responses possible)	1. Sexual Partner 2. Family member 3. Friend 4. Relative 5.Other, specify_____	
Q305	Are there any service related difficulties that you have ever faced?	1. Yes 2. No _____	→ Q309
Q306	If yes, what?	_____ _____ _____	
Q307	Have you ever seen by someone whom you don't want to disclose while you are taking ART?	1. Yes 2. No _____	→ Q313
Q308	What was their reaction? (Multiple responses possible)	1. No Reaction 2. Get surprised at you 3. Laughed at you	

		4. Labeled as HIV positive 5. Other, specify_____	
Q309	What ART related difficulties have you ever faced? (Multiple responses Possible)	1. Adverse reactions 2. Scheduling 3. Pill burden 4. Forgetting tablets to swallow 5. Being seen by other person 6. Dietary interference 7. Difficulty of access to Health care 8. Use of other medications 9. None 10. Other, specify_____	

Part IV:- Disclosure related questions

S.N	Questions	Responses and coding	Skip to
Q401	Have you disclosed your HIV status to your current sexual partner? (If applicable)	1. Yes 2. No	
Q402	To whom have you disclosed your HIV status other than your sexual partner? (Multiple responses possible)	1. Family member 2. Friend 3. Relative 4. No one 5. Other, specify_____	
Q403	If you have disclosed your HIV status to at least someone, what are the reasons to disclose? (List reasons with specific people disclosed) (If applicable)	_____ _____ _____ _____ _____	

Q404	If you haven't disclosed your status to your sexual partner, what are reasons for not disclosing? (If applicable)	_____ _____ _____ _____	
Q405	Do you have a plan to disclose your status? (For those who haven't disclosed for anyone)	1. Yes } 2. No } → Q411	
Q406	When have you disclosed your status first?	1. Before ART initiation 2. After initiation of ART	
Q407	To whom have you disclosed your status first?	1. Sexual partner 2. Family member 3. Friend 4. Relative 5. Other, specify_____	
Q408	What was the reaction?	_____ _____ _____	
Q409	Do you obtain any kind of support from others?	1. Yes 2. No → Q413	
Q410	If yes, from whom?	1. Sexual partner 2. Family member 3. Friend 4. Relative 5. Health professionals 6. Other, specify_____	
Q411	Have you faced any form of mistreatment from others because people are aware of your status?	1. Yes 2. No → Q413	

Q412	If yes, mainly from whom?	_____ _____ _____	
Q413	Are you PLWHA association member?	1. Yes 2. No → Q501	
Q414	If yes What?	_____	

Part V: - Disclosure in relation to ART use

S.N	Questions	Responses and coding	Skip to
Q501	Do you know any other person using ART?	1. Yes 2. No → Q601	
Q502	If yes, who are they?	1. Sexual Partner 2. Friend 3. Family member 4. Relative 5. Other, specify_____	
Q503	How did you know that they are taking ART?	1. Told to you 2. Heard from others 3. Saw while swallowing the ART 4. Others, specify_____	
Q504	Is there mistreatment from their family members or any other person?	1. Yes 2. No	
Q505	Have they disclosed to any others?	1. Yes 2. No 3. I don't know	

Part VI: - Sexual relationship

S.N	Questions	Responses and coding	Skip to
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Q601	Do you know your current spouse/ sexual partner's HIV status?	1. Yes 2. No → Q604	
Q602	If yes, what was the result?	1. Positive 2. Negative 3. No Response	
Q603	Is he/she ART user?	1. Yes 2. No	
Q604	Have you made sexual intercourse after HIV test but before disclosure? (For those who have disclosed)	1. Yes 2. No	



**በህብረተሰብ ጤና እና በህክምና ሳይንስ ኮሌጅ
የሰነ-ተዋልዶ የትምህርት ክፍል**

መግቢያ

ደህና ነዎት! ስሜ-----ይባላል። እኔ በጅም የኒቨርስቲ በህብረተሰብ ጤና እና በህክምና ሳይንስ ኮሌጅ እየተካሄደ ላለው ጥናታዊ ዳሰሳ መረጃ ሰብሳቢ ነኝ። የፀረ-ኤች አይ ቪ መድሃኒት የሚጠቀሙ ከኤች አይ ቪ ጋር የሚኖሩ ሰዎች በቫይረሱ መያዛቸውን ለሌሎች ይገልጻሉ ወይ? የሚለውንና ተያያዥ ጉዳዮችን ለማጥናት ሲሆን እርስዎ በጥናቱ ላይ እንዲሳተፍ ተመርጠዋል። የዚህ ጥናት አላማም እራስን ከመግለጽ ጋር የተያያዙ ጉዳዮችን ለማጥናትና የህክምና አሰጣጡን ወደ ተሻለ ደረጃ ለማሻሻል ብሎም ኤች አይ ቪን ለመቆጣጠርና ለመግታት የሚረዳ ጠቃሚ መረጃ ለማግኘት ነው። ይህንን አላማ ለማሳካት ለተዘጋጁት ጥያቄዎች የሚሰጡን እውነተኛ እና ትክክለኛ መልስ በጣም ጠቃሚ ስለሆነ በቅድሚያ ልናመሰግንዎት እንወዳለን።

ሚስጥርን የመጠበቅና የፈቃደኝነት መግለጫ

በቅድሚያ አንዳንድ ሰዎችን ለመመለስ ሊያስቸግራቸው የሚችሉ በጣም የግል የሆኑ ጥያቄዎችን መጠይቁ ማካተቱንና የምንጠይቅዎ መሆኑን እንገልጻለን። ሆኖም የሚሰጡንን ማንኛውንም አይነት መልሶች በሚስጠር እንደሚያዙና ስምዎን ወይም የእርስዎን ማንነት የሚገልጽ ማንኛውም አይነት ነገር እንደማይጻፍ በጣም ሊረዱልን እንፈልጋለን። ስለዚህ ስምዎ ከሰጡን መልሶች ጋር ፈጽሞ እንደማይያዝና ለባለቤትዎ ሆነ ለማንም ሰው ስምዎ ፈጽሞ ሊገለጽም ሆነ ሊታወቅ አይችልም። በመጠይቁ ወቅት መመለስ የማይፈልጉትን ማንኛውንም አይነት ጥያቄ መተው ወይም በማንኛውም ሰዓት ማቋረጥ ይችላሉ። ነገር ግን ለጥያቄዎቹ የሚሰጡን የእርስዎ መልሶች የህክምና አሰጣጡን ወደ ተሻለ ደረጃ ለማሻሻል ብሎም ኤች አይ ቪን ለመቆጣጠርና ለመግታት የሚረዳ ጠቃሚ

መረጃ ለማግኘት ይበልጥ እንድንችል ይጠቅመናል። ስለሆነም በቅድሚያ ለሚያደርጉልን ትብብር ምስጋናችን ከልብ የመነጨ ነው። መጠይቁ ከ20 እስከ 30 ደቂቃ ሊወስድ ይችላል።

በዚህ ጥናት ላይ ለመሳተፍ ፈቃደኛ ነዎት?

አዎ _____ አይደለሁም / ከሆነ አመስግነህ/ሽ እለፍ/ሽ _____

የመጠይቁ መለያ ቁጥር _____

የጠያቂው ስም _____ መጠይቁ የተሞላበት ቀን _____ ፊርማ _____

የሱፐርቫይዘር ስም _____ ቀን _____ ፊርማ _____

ክፍል 1: መሠረታዊ የሆኑ የማህበራዊ እና የግል መረጃዎችን የሚመለከቱ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q101	እድሜ	_____ አመት 88. አላውቅም 99. መልስ አልሰጥም	
Q102	ጾታ	1. ወንድ 2. ሴት	
Q103	ቋሚ አድራሻ	1. ሐረር ከተማ 2. ከሐረር ከተማ ወጪ	
Q104	ብሔር	1. ኦሮሞ 2. አማራ 3. ሐረሪ 4. ሱማሌ 5. ጉራጌ 6. ትግሬ 7. ሌላ ካለ (ይገለፅ) _____	
Q105	የጋብቻ ሁኔታ	1. ያገባ 2. ያላገባ 3. ባሏ/ ሚስቱ የሞተ 4. የተለያዩ 5. የፈታ/የፈታች	
Q106	የልጆች ብዛት	1. ምንም 2. አንድ 3. ሁለት 4. ሶስት እና በላይ	
Q107	ሐይማኖት	1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት	

		4. ካቶሊክ 5. ሌላ ካለ(ይገለፅ)_____	
Q108	የትምህርት ደረጃ	1. ያልተማረ 2. ማንበብ ወይም መጻፍ የሚችል 3. አንደኛ ደረጃ(1-8 ክፍል) 4. 2ኛ ደረጃ(የድሮ 9-12 / የአሁኑ 9-10 ክፍል) 5. የመሰናዶ ትምህርት(የአሁኑ 11-12) 6. ከዲፕሎም በታች ማንኛውም ስርተፊኬት 7. ዲፕሎም 8. ዲግሪ ና ከዛ በላይ	
Q109	ስራ	1. ተቀጣሪ ሰራተኛ 2. ነጋዴ 3. የቀን ሰራተኛ 4. ስራ የለኝም 5. ሌላ ካለ (ይገለፅ)_____	
Q110	ግምታዊ ወርሃዊ ገቢ በኢትዮጵያ ብር	_____ ብር	

ክፍል 2: ከHIV ምርመራ ጋር የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q201	መቼ የኤች አይ ቪ ምርመራ አደረጉ?	(_____ ወር _____ ዓ.ም) 88. አላስታወስም 99. ጥያቄው ይለፈኝ	
Q202	ለምን የኤች አይ ቪ ምርመራ አደረጉ?	1. በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክር እና የምርመራ አገልግሎት 2. በጤና አገልግሎት ሰጪ አማካኝነት የምክር እና የኤች አይ ቪ የምርመራ አገልግሎት 3. በበሽታ አማካኝነት የተደረገ ምርመራ 4. ለጋብቻ ዝግጅት 5. ለጉዞ/ቪዛ 6. ሌላ ካለ(ይገለፅ)_____	
Q203	የኤች አይ ቪ ምርመራ ለማድረግ በሌላ ሰው ተገፋፍተዋል?	1. አዎ 2. አይ _____	Q205
Q204	አዎ ከሆነ በማን? (ብዙ መልስ ይቻላል)	1. በፍቅር/በትዳር ጓደኛ 2. በቤተሰብ አባል 3. በጓደኛ 4. በጤና ባለሙያ 5. በዘመድ 6. ሌላ ካለ (ይገለፅ)_____	

Q205	የኤች አይ ቪ ምርመራ ለማድረግ ከሌላ ሰው ጋር ተወያይተዋል ነበር?	1. አዎ 2. አይ	→ Q301
Q206	አዎ ከሆነ ከማን ጋር? (ብዙ መልስ ይቻላል)	1. የፍቅር/የትዳር ጓደኛ 2. የቤተሰብ አባል 3. ጓደኛ 4. የጤና ባለሙያ 5. ዘመድ 6. ሌላ ካለ (ይገለፅ) _____	
Q207	አዎ ከሆነ ምላሹ ምን ነበር;	1. እሺታ/ድጋፍ 2. ተቃዋሞ 3. ምንም መልስ አልነበረም	

ክፍል 3: ከፀረ-ኤች አይ ቪ መድሀኒት እና የጤና ተቋም ጋር የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q301	የፀረ-ኤች አይ ቪ መድሀኒት መቼ ጀመሩ?	(_____ ወር _____ ዓ.ም) 88. አላስታውስም 99. ጥያቄዬ ይለፈኝ	
Q302	የፀረ-ኤች አይ ቪ መድሀኒት ሲጀምሩ በማንኛውም የጤና ተቋም ተኝተዋል ነበር?	1. አዎ 2. አይ	
Q303	ከጤና ባለሙያ ወጪ ስለ ፀረ-ኤች አይ ቪ መድሀኒት መጀመር ተወያይተዋል ነበር?	1. አዎ 2. አይ	→ Q305
Q304	አዎ ከሆነ ከማን ጋር? (ብዙ መልስ ይቻላል)	1. የፍቅር/የትዳር ጓደኛ 2. የቤተሰብ አባል 3. ጓደኛ 4. ዘመድ 5. ሌላ ካለ (ይገለፅ) _____	
Q305	ከጤና ሰጪ ተቋምም ሆነ ባለሙያ ጋር የተያያዘ ያጋጠሞት ችግር አለ?	1. አዎ 2. አይ	→ Q307
Q306	አዎ ከሆነ ምንድናቸው?	_____ _____ _____	
Q307	ኤች አይ ቪ በደምት ውስጥ እንዳለ መንገር የማይፈልጉት ሰው የፀረ-ኤች አይ ቪ መድሀኒቶችን ሲወጡ እርሶን አይተዉ ያወቃሉ?	1. አዎ 2. አይ	→ Q309
Q308	አዎ ከሆነ ምላሻቸው ምን ነበር? (ብዙ መልስ ይቻላል)	1. ምንም 2. በእርሶ ተደነቁ 3. በእርሶ ሳቁ 4. ኤች አይ ቪ እንዳለቦት መቆጠር	

		5. ሌላ ካለ (ይገለፅ)_____	
Q309	ከፀረ-ኤች አይ ቪ መድሃኒት እና ህክምና ጋር በተያያዘ ያጋጠሞት ችግር አለ? (ብዙ መልስ ይቻላል)	<ol style="list-style-type: none"> 1. የመድሃኒት የጎንዮሽ ጉዳት 2. የቀን አዋዋጥ ፕሮግራም 3. የመድሃኒት ብዛት 4. መድሃኒቶቹን መርሳት 5. በሌላ ሰው መታየት 6. ከምግብ ጋር አለመጣጣም 7. ሌላ መድሃኒት መጠቀም 8. ምንም የለም 9. ሌላ ካለ (ይገለፅ)_____ 	

ክፍል 4- ኤች አይ ቪ እንዳለብዎት ከመግለፅ ጋር የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q401	ኤች አይ ቪ እንዳለብዎት ለፍቅር/ትዳር አጋሮ ገልፀዋል? (ለሚመለከታቸው ብቻ)	<ol style="list-style-type: none"> 1. አዎ 2. አይ 	
Q402	ከፍቅር/ትዳር አጋሮ ውጪ ኤች አይ ቪ እንዳለብዎት ለማን ገልፀዋል? (ብዙ መልስ ይቻላል)	<ol style="list-style-type: none"> 1. የቤተሰብ አባል 2. ጓደኛ 3. ዘመድ 4. ለማንም አልገለፁትም 5. ሌላ ካለ (ይገለፅ)_____ 	
Q403	ቢያንስ ለአንድ ሰው ኤች አይ ቪ እንዳለብዎት ከገለፁ ለመግለፅዎ ምክንያትዎ ምንድናቸው? (ምክንያትዎን ከገለፁለት ሰው ጋር ይዘርዝሩ)	_____	
Q404	ለፍቅር/ትዳር አጋሮ ኤች አይ ቪ እንዳለብዎት ካልገለፁ ምክንያትዎ ምንድናቸው? (ለሚመለከታቸው ብቻ)	_____	
Q405	ኤች አይ ቪ እንዳለብዎት ለመግለፅ እቅድ አለዎት? (ለማንም ላልገለፁት ብቻ)	<ol style="list-style-type: none"> 1. አዎ 2. አይ 	→ Q409
Q406	ለመጀመሪያ ጊዜ ኤች አይ ቪ እንዳለብዎት የገለፁት መቼ ነበር? (ለገለፁት ብቻ)	<ol style="list-style-type: none"> 1. ከፀረ-ኤች አይ ቪ መድሃኒት በፊት 2. ፀረ-ኤች አይ ቪ መድሃኒት ከጀመሩ በኋላ 	

Q407	ለመጀመሪያ ጊዜ ኤች አይ ቪ እንዳለብዎት የገለጹት ለማን ነበር? (ለገለጹት ብቻ)	1. ለፍቅር/የትዳር ጓደኛ 2. ለቤተሰብ አባል 3. ጓደኛ 4. ዘመድ 5. ሌላ ካለ (ይገለጹ)_____	
Q408	ለመጀመሪያ ጊዜ ሲገልጹ ያጋጠሙት ምላሽ ምን ነበር? (ለገለጹት ብቻ)	_____ _____ _____	
Q409	ከሌሎች የተለያዩ እርዳታና እገዛ ያገኛሉ?	1. አዎ 2. አይ _____	→Q411
Q410	አዎ ከሆነ ከማን?	1. ከፍቅር/የትዳር ጓደኛ 2. ከቤተሰብ አባል 3. ከጓደኛ 4. ከጤና ባለሙያ 5. ከዘመድ 6. ከሌላ ካለ (ይገለጹ)_____	
Q411	ሰዎች ኤች አይ ቪ እንዳለብህ በማወቃቸው ያጋጠመህ ያልተገባ ተግባር አለ? (ለገለጹት ብቻ)	1. አዎ 2. አይ _____	→ Q413
Q412	አዎ ከሆነ በዋነኝነት ከማን?	_____ _____ _____	
Q413	ከ ኤች አይ ቪ ጋር የሚኖሩ ሰዎች ማህበር አባል ነዎት?	1. አዎ 2. አይ _____	→ Q501
Q414	አዎ ከሆነ ምን የሚባል ማህበር?	_____	

ክፍል 5: የፀረ- ኤች አይ ቪ መድሀኒት ና ከኤች አይ ቪ ጋር መኖርዎን ከመግለፅ ጋር የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q501	የ ፀረ- ኤች አይ ቪ መድሀኒት የሚጠቀም ሌላ ሰው ያውቃሉ?	1.አዎ 2.አይ _____	→ Q601
Q502	አዎ ከሆነ እነማን ናቸው?	1.የፍቅር/የትዳር ጓደኛ 2. የቤተሰብ አባል 3.ጓደኛ 4.ዘመድ 5.ሌላ ካለ (ይገለጹ)_____	
Q503	የፀረ- ኤች አይ ቪ መድሀኒት ተጠቃሚ መሆናቸውን እንዴት አወቁ?	1. ነግረውኝ ነው. 2. ከሌሎች ሰምቼ 3. መድሃኒቱን ሲወስዱ አይቼ 4. ሌላ ካለ (ይገለጹ)_____	
Q504	ከቤተሰባቸው ወይም ከሌሎች ሰዎች የደረሰባቸው ያልተገባ ተግባር አለ?	1. አዎ 2. አይ	

Q505	ኤች አይ ቪ እንዳለባቸው ለሌላ ሰው ገልጸዋል?	<ol style="list-style-type: none"> አዎ አይ አላውቅም 	
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ክፍል 6: የፍቅር / የትዳር አጋር የተመለከቱ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፍ (ቀጥል)
Q601	የአሁኑን የፍቅር/ የትዳር አጋርን ኤች አይ ቪ መኖር አለመኖሩን ያውቃሉ?	<ol style="list-style-type: none"> አዎ አይ 	→ Q604
Q602	አዎ ከሆነ ወጤቱ ምንድነው?	<ol style="list-style-type: none"> ኤች አይ ቪ አለ ኤች አይ ቪ የለም ጥያቄው ይለፈኝ 	
Q603	የፍቅር/ የትዳር አጋርዎ የፀረ- ኤች አይ ቪ መድሀኒት ተጠቃሚ ነው?	<ol style="list-style-type: none"> አዎ አይ 	
Q604	ከኤች አይ ቪ ምርመራ በኋላ ኤች አይ ቪ እንዳለብዎት ሳይናገሩ የግብረ-ስጋ ግንኙነት ፈፅመዋል?	<ol style="list-style-type: none"> አዎ አይ 	

In-depth interview Guide

Good morning/afternoon!

My name is _____, from Jimma University, College of Public Health and Medical sciences Population and Family Department. I am here to study about HIV status disclosure and associated factors among PLWHA using ART in Harar ART clinics. I would like to discuss some issues related to ART and disclosure with you that are important for prevention and control of HIV/AIDS in our region and in country as general. So, both positive and negative opinions and your experiences that you will share have a paramount important to the result of this study. The interview will be tape-recorded in order not to miss any points of the discussion. You are free to participate and to refuse. Please be assured that I will not record any names or other identifying information. I will protect the information you give me and used for this study purpose only. May I continue?

Yes _____

No _____

Thank you for your willingness to share your experiences and opinions.

For ART clinic counselors

- How long have you been working here?
- Do you attend any kind of training concerning ART provision?

- What change do ART bring to PLWHA?
- What challenges do PLWHA face regarding coming to ART clinic?
- Who are service users?
- What kind of services do you give?
- Do you think the services given by your clinic Adequate?
- Do PLWHA understand Dosing and daily scheduling of ART?
 - Do they complain about complexity of the dosing schedules?
 - Is there missed dose or discontinuation?
- Have you discussed with PLWHA about Disclosure concerns?
 - Do you discuss or give information about importance of disclosure?
 - Any activity to create more awareness about disclosure?
 - What is their feeling towards disclosure?
 - What worries them regarding disclosure?
 - Have they told you that they face any form of mistreatment?
- What is the attitude of the community regarding Disclosure?
 - In your locality, does the community accept ART users?
 - Are they willing to start ART? Reasons for not using?
- Who are the ART users in your institution?
 - How consistently clients use ART?
 - What are the motivations for initiation of ART?
 - Main reasons to use the ART consistently?
 - What difficulties they face associated with ART? (Any type of problem or difficulties)
- What are the barriers for provision of ART? (Cost, availability, acceptability, cultural and religious opposition, lack of adequate information and others)
- What promotion activities have you done previously?
 - Do you have any integration with other services like RH service and others?
- What improvements (training, IEC, availability, policy, supply, cost) are needed for improvements of the service provision and to get changes in service utilization regarding ART utilization?
- What kind of support would you give for PLWHA?
- What do you think is the contribution of Non-disclosure to the spread of HIV?

- What are the major challenges and opportunities in HIV/AIDS prevention and control regarding ART drug or ART users?

Finally, do you have anything you would like to add in our discussion?

Thank you for your willingness to participate in this interview.

For PLWHA association officials, Experts from Health bureau, ICAP & HAPCO

- How long have you been a member here? (For PLWHA association only)
- Who are members of this association? (For PLWHA association only)
- What change do ART bring to PLWHA?
- What challenges do PLWHA face in institutions providing VCT and ART services?
- What support and/or services do you give for PLWHA?
- Have you discussed with PLWHA about Disclosure concerns?
 - Do you discuss or give information about importance of disclosure?
 - Any activity to create more awareness about disclosure?
 - What is their feeling towards disclosure?
 - What worries them regarding disclosure?
 - Have they told you that they face any form of mistreatment?
- What is the attitude of the community regarding Disclosure?
 - In your locality, does the community accept ART users? Are they willing to start ART? Reasons for not to start?
- Who are the ART users in your members?
 - How consistently clients use ART?
 - What are the motivations for initial use of ART main reasons to use the ART consistently?
 - What difficulties they face associated with ART? (Any type of problem or difficulties)
- What are the barriers for provision of ART? (Cost, availability, acceptability, cultural and religious opposition, lack of adequate information and others)
- What promotion activities do you do previously? Specifically in schools, colleges and other places?
 - Do you have any integration with ART service providers, Health Bureau, Partners working on HIV/AIDS and others?

- What improvements (training, IEC, availability, policy, supply, cost) are needed for improvements of the service provision and to get changes in service utilization regarding ART utilization?
- What do you think is the contribution of Non- disclosure to the spread of HIV?
- What are the major challenges and opportunities in HIV/AIDS prevention and control regarding ART?

Finally, do you have anything you would like to add in our discussion?

Thank you for your willingness to participate in this interview.

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name: _____

Signature: _____

Name of institution: _____

Date of submission: _____

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

Name and signature of the first advisor

Name and signature of the second advisor
