

Association of sero-status disclosure with risky sexual behaviors among youth attending anti-retroviral therapy in Bench-Maji zone, Southwest-Ethiopia, 2018

By: Medhanit Worku (BSc)

A thesis submitted to Population and Family Health Department, Institute of Health, Jimma University; in partial fulfillment of the requirements for Masters of Public Health in Reproductive Health, (MPH/RH).

June, 2018

Jimma, Ethiopia

JIMMA UNIVERSITY
INSTITUTE OF HEALTH
FACULTY OF PUBLIC HEALTH
DEPARTMENT OF POPULATION AND FAMILY HEALTH

Association of sero-status disclosure with risky sexual behaviors among youth attending anti-retroviral therapy in Bench-Maji zone, Southwest-Ethiopia, 2018

By: Medhanit Worku (BSc)

Advisor(s)

- 1) Dr. Gurmesa Tura. (PHD)
- 2) Ms. Alemi Kebede. (MPH/RH)

June, 2018

Jimma, Ethiopia

Abstract

Background:- *Studies on the risky sexual behaviors have reported that sero-status disclosure leads to safer sexual behaviors. There is however risky sexual behavior among disclosed youth living with human immune virus (HIV) and human immune deficiency syndrome (AIDS). Despite, attention has been given for its prevention. It is the leading cause of death among youth in Africa. In Ethiopia new HIV infection among youth is 33% of adult new HIV infection and unprotected sex is major route of transmission.*

Objective:- *To compare status of risky sexual behaviors and its association with sero-status disclosure among HIV positive youths attending Anti-retroviral therapy in Bench-Maji zone, south-West Ethiopia.*

Methods:- *Cross sectional study was conducted among youth attending ART clinics, in Bench-Maji zone. Data was collected using pre-tested interviewer administrating questionnaires from 288 HIV positive youth using consecutive sampling technique from March 21 to May 4/2018. Descriptive statistics, bivariate analysis, multivariate logistic regressions were used accordingly.*

Result: - *In this study reported risky sexual behaviors, except having causal partner ((56.2% disclosed vs (22.8%) non-disclosed (p -value<0.001). Never or often use of condom [(72.8% vs 71.9%) (p -value=0.710)] and having multiple sexual partners [(30.1% vs 37.5%) (p -value=0.421)] were did not differ based on disclosure status of youth attending ART in Benche Maji Zone. Regarding factor associated with risky sexual behaviors; Marital status; being married or in relationship [AOR(95%CI) 2.426(1.115,5.280)],having no knowledge regarding HIV prevention [AOR(95%CI) 2.032(1.032,3.791)],more than three time per week alcohol drinking [AOR(95%CI) 3.193(1.192,8.552)],and once per month or at holiday alcohol drinking [AOR(95%CI) 2.674(1.152,6.206)] were showed a significant association with risky sexual behaviors. Sero-status disclosure can-not reach to statically significant association with risky sexual behavior.*

Conclusion and recommendation:- *this study shows risky sexual behaviors were exist among HIV positive youth. Lack knowledge regarding HIV prevention, Alcohol drunk and being married or in relationship were the identified associated factors of risky sexual behavior. Therefore, emphasis should give to address identified factors.*

Key words: *sero-status disclosure, risky sexual behaviors, Benchi Maji, Ethiopia*

Acknowledgement

First I would like to thank, almighty God starting and ending this thesis work, then I would like to express my deep sense of thanks to my advisors Dr Gurmesa Tura and Ms Alemi Kebede for their unreserved guidance and constructive comments throughout this research thesis work.

I would like also to acknowledge, Mizan-Aman College of Health Sciences for the financial support to conduct this research thesis.

My special thanks go to my families, Mr Abdulaziz Fereje and Mr Shimeles Wondimu for the support throughout this thesis work.

Last but not least, I gratefully thank to the data collectors, supervisor and the respondents for patiently responding and provision of their precious time.

Acronym

ADIS	Acquired immunodeficiency syndrome
NNR	None response rate
TTS	Total sample size
HC	Health center
MTUTH	Mizan-Tepi University Teaching Hospital
AOR	Adjusted Odd Ratio
ART	Anti-Retroviral Therapy
COR	Crud Odd Ratio
EDHS	Ethiopian Demographic Health Survey
HIV	Human immune- deficiency virus,
HSD	HIV Sero-Status disclosure
MAT	Mizan-Amn Town
PITC	Provider Initiated Testing and Counseling
PLHIV	People Living With HIV/ AIDS
RSB	Risky Sexual behaviors?
SNNPR	South Nation Nationality People Region
SPSS	Statistical Package for Social Sciences
UNAIDS	United States programs on AIDS
UNFPA	United Nations Population Fund
UNHCR:	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
UNICEF:	United Nations Children’s Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing (for HIV infection)
WHO	World Health Organization
YLHIV	Youth Living With HIV/ AIDS

Table of Contents

Contents	Page Numbers
<i>Abstract</i>	i
Acknowledgement	ii
Acronym	iii
Table of Contents	iv
List of Tables	vi
List of Figures	vi
Chapter one: Introduction	1
1.1. Background	1
1.2. Problem Statement	3
Chapter Two: Literature Review	5
Chapter Three: Objectives	15
Chapter Four: Methods and materials	16
4.1. Study area and period	16
4.2. Study design	16
4.3. Population	16
4.4. Inclusion and Exclusion criteria	16
4.5. Sample size and Sampling technique / procedures	17
4.6. Variables	19
4.7. Data collection procedures	20
4.8. Operational definitions	21
4.9. Measurements	22
4.9. Data analysis	24
4.10. Ethical consideration	24
4.11. Dissemination plan	24

Chapter five: Result	25
Chapter six: Discussion.....	34
Chapter seven: Conclusion and recommendation.....	38
Chapter eight: Strength and Limitation of the Study	39
Chapter Nine: Reference.....	40
Annexes.....	45
Annex one: Information sheet , Consent Form	45
Annex two: English version Questionnaire.....	48
Annex three: Amharic version questioner	56

List of Tables

Table 1: Sample size determined using selected variables for study of association of sero-status disclosure with risky sexual behavior, in Bench-Maji Zone Southwest-Ethiopia 2018.	17
Table 2: Sampling procedure for association of sero-status disclosure with risky sexual behavior among youth attending ART in bench-maji zone, south west-Ethiopia, March21-May/4 2018..	19
Table 3: Summary of Socio-demographic characteristics study participant stratified by disclosure status of HIV positive youth attending ART clinics in Bench Maji zone, southwest-Ethiopia, March/21to May/4, 2018 (<i>n</i> =288).....	26
Table 4: Summary of time since know HIV status, stigma, knowledge regarding HIV prevention, alcohol and substance use of study participant stratified by disclosure status of HIV positive youth attending ART clinics in Bench Maji zone, southwest-Ethiopia, March 21 to May/4 2018(N=288).....	28
Table 5: Summary of Partner and Sexual Behaviors related characteristics of study participant stratified by disclosure status of HIV positive youth attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018(N=288).....	30
Table 6: Summary of association of variables with risky sexual behavior among youths attending ART in Bench Maji zone, southwest-Ethiopia, March / 21 to May/4 2018	33

List of Figures

Figure 1: Conceptual framework showing the relationship between factors that may contribute to differences in sexual risk behaviours among HIV positive youths in Bench Maji Zone, Ethiopia(Source: (18,34), the broken arrow was not the focus of this study).	13
Figure 2: Schematic presentation of sampling procedure to association of sero-status disclosure with risky sexual behavior among youth attending ART in bench-maji zone, south west-Ethiopia, 2018.....	18
Figure 3: Risky sexual behavior among disclose and non-disclosed youth attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018	31

Chapter one: Introduction

1.1. Background

“Youths” are defined as age group belonging to 15 to 24 years old. Youth make up a large proportion of the population, accounts 2.1 billion (16%) of a whole population. In sub Saharan Africa, more than one-third of the population is young people and continues to grow substantially than other regions(1–3). It is a time of transition from childhood to adulthood, also a time for exploring and navigating peer relationships, gender norms, sexuality and economic responsibility but still not reached cognitive, behavioral and emotional maturity (2,4). Besides, inhibitive environment facilities them to engage in risky sexual behaviors, which are behaviors contributes for unplanned pregnancy and sexually transmitted infections (STIs), including HIV/AIDS, like having unprotected intercourse and multiple sexual partners (5,6).

Unprotected sex is the most common route of human immune-deficiency virus(HIV) infections which destroys the body’s ability to fight off infection and disease, then causes acquired immune-deficiency syndrome (AIDS)(4,7). Since the start of the AIDS epidemic, more than 78 million people have become infected and more than half of them have died. Death related to HIV infections have declined due to antiretroviral therapy (ART). Despite, in 2016, 2.1 million people aged between 10 and 19 years were living with HIV and 260,000 became newly infected then 55,000 were died through AIDS-related causes. Youths were the only age group HIV infection and death related to AIDS was raised. Now, it was become the leading cause of death among young people in Africa and the second leading cause of death among young people worldwide(4,8). A small change in risk sexual behavior in such population could have a large impact on the course of the epidemic.

Low- and middle-income countries were in high burden of HIV infection, especially young women in Sub-Saharan Africa; they contribute to 37% of adult new HIV infection (4,8). This related to early sexual initiation resulted to multiple life time partners. In Ethiopia, HIV prevalence among youth is 0.9%. Women HIV prevalence was five time higher than men in same age group. Mizan (the capital town for Bench-Maji Zone) is the fifth HIV positive town among urban town in South nation nationality people region following Hawasa, Dilla Hosanna and Tepi(9,10)

Based on Ethiopia health sector transformation plan, Ethiopia is working to make HIV/AIDS not public concern in 2030. To achieve the plan in a given time frame, most vulnerable section of the society, like youths, needs special focuses through HIV prevention strategies that help to reduce risky sexual behaviors. Even though, the current national HIV and AIDS plans which typically focus on adults (age greater than 15) and children (age less than 15) (9,11)

1.2. Problem Statement

Youths are at risk firstly in related to their age, they engaged in sex experimentation. Followed by lack of knowledge on risk, consequence and means of HIV prevention (3–5), as well as early sexual debut and having older partner. Given that unprotected sex is the most common route of HIV infection for young people (1,3,4). As evidences show that youth living with HIV as any other youth are engage in risky sexual activities(12–15).

Study from high income countries, America and New Jersey; found that the rate of unprotected sex among HIV positive youth is 48% and 59% respectively. Both studies reveals risky sexual behaviors were more reported among HIV positive youths than HIV negative youth (12,16). Studies from Sub-Sahara Africa, in Uganda and Tanzania reveals that the rate risky sexual behaviors like did not consistently use condoms range from 27.5% to 77.5% and having more than one sexual partner range from 14.5% to 30%(13,14,17). In Ethiopia, study among youths visiting HIV testing and counseling centers in Gamo-Gofa Zone, reveals that 94% of HIV positive youth were started sexual intercourse at early age(18).

Studies show that disclosure increase safer sex practices by opening a way for discussion, increasing trust, use of condoms and increase support during treatment including encouragement, advice regarding HIV care and treatment among people living with HIV including youth(10,19). For example, a mathematical modeling implies that; 61.2 % of HIV transmission risk reduces as a result of disclosure among sero dis-concordant couples. Study among HIV positive youths also found that sero-status disclosure to family members help to protected from engaging risky sexual behavior(17,20–22). Even though, studies among youth highlight that youths are not willing to disclose their HIV status in fear of stigma associated with being HIV-positive and also in fear of being rejected by and discriminated against by sexual partners(20,23).

As studies from Sub-Saharan countries in Uganda, Tanzania and Kenya revealed that risky sexual behavior was exist among HIV positive study participant and take sero-status disclosure as single variable did not tell its association with risky sexual behavior. Studies in Ethiopia were focused on non-infected youth in both communities and schools settings (24–29).

However, the characteristics and behaviors of youth live with HIV (age 15-24) had given less attention. Most of the studies conducted in Ethiopia were investigated risky sexual behaviors among

adult people live with HIV age greater than 18 years old(34-36), leaving out those not yet reached adult age group. Also comparison based on sero-status disclosure was remains largely undocumented.

This study therefore; compares risky sexual behaviors among sero-status disclosed and sero-status non-disclosed youth and assess factors associated with risky sexual behaviors among youth live with HIV attending ART clinics in Bench Maji Zone.

Chapter Two: Literature Review

2.1. Overview of risky sexual behaviors and sero-status disclosure

Risky sexual behavior among the youth has been the central focus of a number of previous studies in Ethiopia. Its magnitude and type were analyzed in different source population. Like School, (high school and university) and community (based on residence (rural, urban, semi urban) in school and out school) etc. But study done on youth living with HIV was not accessed. In this section, It was aimed to review of literatures that focused on prevalence of risky sexual behavior and association with sero-status disclosure including other factors associated with risky sexually behavior among youth living with HIV. Based on internet search PUBMADE, BMC-CENTERL, and Google scholar was accessed using key words; Risky sexual behavior, sero-status disclosure, youth, adolescent, youth living with HIV, Sub Sahara Africa and Ethiopia.

2.2. Issues about risky sexual behavior and sero-status disclosure

Risky sexual behavior defined by center of disease prevention and control(CDC) united nation(UN) survey, any behavior that increases the probability of negative consequences associated with sexual contact, sexually transmitted diseases (STDs) including AIDS/other and unplanned pregnancy(30). Even though, it does not include frequency of sexual intercourse and does not always indicate a high-risk lifestyle, which often cluster risk sexual behaviors(31). And others considers having sex under the influence of substances as risky sexual behavior, due to its effect on mental decision ability(6,32). First sexual intercourse and sexual debut at early age are more related to adolescents bad health outcomes(5), so that, it was considered as risky sexual behaviors. Different studies among non-infected youth (24–29) and people living with HIV were used similar definition of risky sexual behaviors (15,17,33–35).

Different literature describe HIV sero-status disclosure in various way: the first one is” to children as when parents, or other caregivers, and health care providers, inform a child living with HIV” and the other, when adolescents living with HIV disclose their sero-status to a third party(family member, friends and partner)and likes. Disclosing HIV status is the right of the individual only, the health providers keep it confidential all time(36–39).

Study done among clients attending ART clinics in Bahir Dar, Ethiopia and study conducted on HIV-positive individuals in stable partnerships in Burkina Faso, Kenya, Malawi and Uganda, recruited at healthcare facilities offering HIV testing on HIV sero status disclosure were found that,

negative responses like stigma, discrimination and violence. Those were ranged from disbelief and denial, blaming the spouse for infidelity and bringing the disease into the family, separation or divorce and pointed towards you. Yet the same studies were reported that 93.8% of who disclosed were benefited from doing so, like improved health care through encourage one's partner to get tested and the intention to use condoms as well as improved social support(9,40).

2.3. Prevalence of risky sexual behavior among youth living with HIV

From the previous studies among youth living with HIV gather information on sexual as well as risky sexual behavior; evidenced that HIV seropositive youth were involved any form of risky sexual behaviors with and without disclosing sero-status.

In America longitudinal study among youth parentally exposed to HIV and confirmed HIV positive and HIV negative youth concluded that, the rates of penetrative sex increased by a third, and rates of unprotected sex doubled between baseline and follow-up among HIV positive youth and the rates of unprotected sex is 48%(16). Study conducted in Sub-Sahara Africa regarding risk sexual behaviors among youth living with HIV attending care and treatment clinics in central Uganda was reveals that among those currently sexually active, 57%, did not consistently use condoms and 30%, had more than one sexual partners; but, the other study in Tanzania found that almost below the half the result accounted in Uganda (27.5%, and 14.5%,). Even though another study in Uganda reveals similarly higher proportion of risky sexual behaviors (77.5% and 16%) in the past six months respectively (13,14,17).

2.4. Prevalence of HIV sero-status disclosure among youth living with HIV

Study employed among HIV-positive individuals in stable partnerships in Burkina Faso, Kenya, Malawi and Uganda, recruited at healthcare facilities offering HIV testing was found that, the rates of disclosure to partners ranged between countries 32.7% – 92.7%. The lowest rate was reported in Malawi. And the highest rate reported from Kenya respondents (40).

Studies among youth living with HIV attending ART clinics were revealed that higher incidence of risky sexual behavior and lower HIV sero-status disclosure than adult. For example; study done in Ethiopia, among adult ART user report that 94.6% had disclosed their sero-status to their sexual partner and magnitude of unprotected intercourse is 22.2% (34). Whereas study conducted in

Uganda on parentally infected adolescent reported that among those ever had intimate relationship, almost half 49.5% had not disclosed HIV status to their partners, 34.34% had ever had sexual intercourse and 24.6% had unprotected sex(13). Similarly; study done in Jamaica among HIV positives youth, 12% of study participants are practices unprotected sex without disclosing their sero-status(15). Data from South Africa Demographic health survey analysis 2012 reported that; among sexually active PLHIV; in age range 15-24 years old only 17% had disclosed their sero-status to all their sex partners compared to other age group 60%(41).

2.5. Factors associated with Risky Sexual Behaviors

2.5.1. Distal factors

2.5.1.1. Socio Demographic Factors

Almost all of the previous studies were gathered socio-demographic data on the HIV positive respondents, report inconsistency relationships between socio-demographic variables and risky sexual behaviors

Age:- Being young adult was mostly associated with risky sexual behaviors. For example; being at middle adolescent was more engage in risky sexual behavior than both being at the early and late adolescents. Study done on parentally HIV-infected adolescents in Uganda found that middle adolescents were more exposed to having had sex than early adolescent and similarly higher odds of engaging in unprotected sex as compared to their older counterparts (20 to 24 years)(12,13). Even though, study from central Uganda among YLHIV revealed that, younger youth between 15 and 19 years were more likely to abstain compared to other age group(14).

Sex:- study done on risky behaviors in Tanzania and Uganda among young people living with HIV attending care and treatment clinics were yield that, female respondents were more reported to have multiple sexual partners and more likely to had ever sex or engage in risky sexual behavior than male respectively [13,14]. However, study done in Ethiopia among adult PLWHIV the opposite is true. Males were more likely to engage in risky sexual practice than females(33). In contrast, case control study among youth in Gamo Goffa zone females are found to initiate sexual intercourse at earlier age than male respondents(18).

Marital status: - determine the living arrangement of an individual whether exposed or protected accordingly. As study done in Ethiopia on adult PLHIV reveal that, being single as well as being widowed shows a protective effect to engaging in unprotected intercourse (33). However, the other study conducted among youth living with HIV, found that, living alone was more than four time exposed to risky(13).

Educational status:- Being in school is a protective factor to have had sex, recent sexual activity and risky sexual debut according to studies infected as well as non-infected youths [14,44,45]. Similarly in Ethiopia, study among youth in Gamo Goffa zone report that, those had no and primary education were more exposed to HIV acquired compared to youths with secondary and above(18).

Living arrangement:- the living arrangement of youth is mostly dependent, so living with other and get support from others reduce the likelihoods of engaging in risky sexual behaviors. For example, study from Tanzania having family support related to having less than one sexual partners and not having had sex since their HIV diagnosis as compared to those without family support (17). And in Rwanda among HIV + and HIV- women showed that women who lived with someone else higher transactional sex, Whereas those living with a husband or partner reduce incidence of transactional sex(44). On the other hand, study in Uganda among parentally infected youth showed that living alone is five time more to expose to risky sexual behavior (13).

Time since diagnosis:- Time of diagnosis is related with the immunity of individuals, when the immunity is decreased, their clinical condition become deteriorates. Thus, they become more likely to abstain from sexual practice. According to Przybyla et al. time to diagnosis is not reach to significant level for disclosure; But it is increase the likelihood to engage in risky behaviors (51).

Influence related to HIV status (stigma):- The conviction of avoiding stigma related to HIV might be commencing to keep the sexual behavior of HIV-infected persons. Study done among HIV positive adult in Jimma University specialized hospital being stigmatized or not stigmatized was did not reached statically significance association for engaging in risky sexual behavior. But study done among youth in Kenya; found that HIV-related stigma was the main factor for HIV + youth not to attend their follow up schedule and non-disclosing their status to others.

2.5.2 Proximal factors

2.5.2.1. Individual factors

Different studies explain information regarding alcohol and substance use and knowledge HIV were investigate their associated with risky sexual behaviors.

Alcohol and substance use:- Many different studies show that non-use of alcohol and substance is reduced the risk of engaging in risky sexual behavior. For example, studies among young people living with HIV also highlighted that not drink alcohol was protective for ever had sex, 60% less likely to report practicing unprotected sex and more than three times report condom use than participants who consumed alcohols(14,46). Non-smoking also had protective effect(13). Study done in Ethiopia among adult PLHIV found that alcohol consumption was twice increase the risk of engaging in risky sexual behavior(33). Despite, alcohol and substance use is too common among youth living with HIV in Ethiopia. Study done in Ethiopia, Harer among newly rolled ART user found that 75% respondents reported lifetime khat use(46), and study done in Tiss-Abay, semi-urban area, Ethiopia among unmarried young women found that 68.8% of participants had last sexual intercourse under influence of substance(47). Likewise study done on prenatally HIV-infected adolescents in Uganda among those engage in risky sexual behavior 15.9 % had ever drunk alcohol and/ smoked(13).

Taking ART :- Comparative study done in Bahir Dar, Ethiopia on HIV positives adult on ART and ART naive about pattern of condom use; a total of 48.9% (47.4% were ART and 50.4% were ART naive) respondents were reported sexual intercourse in the prior 3 months. Among those sexually actives, inconsistent condom use is 56% vs 44.2% and 6.4% vs 5.1% have sex with non-regular and commercial sexual partner among ART and ART naive respectively (35). However, study conducted among youth living with HIV in Tanzania showed respondents who were on antiretroviral drugs were significantly less engagement in multiple sexual partnerships (65.8% vs. 79.8%), and more likely to report using a condom during their last sexual intercourse (66.7% vs. 55.4%), and 62% lower likelihood of reporting engaging in multiple sexual partnerships as compared to those who were not on ART(17).

Knowledge regarding HIV prevention:-Comparative study among parentally exposed PHIV positive and PHIV negative youths, about knowledge regarding HIV prevention like abstinence

from sex can prevent HIV transmission 33% PHIV+ and 32% HIV- group were did not know. Similarly regarding use of condoms can prevent HIV transmission 18% PHIV+ and 40% HIV- group were did not know (12). In addition to that, study in Uganda also showed that HIV prevention knowledge was lacking in HIV-positive young people. For example, 60.4%, 65.3% of females and 46.7%, 73.4% of the males in that study were categorized as having minimal and little knowledge on HIV transmission respectively. Even though it is not reaches to statically significant value(17). Study done in Addis Ababa, Ethiopia about risky HIV sexual behavior and utilization of VCT among undergraduate students in Science and Technology University found that, 42% the participants believed that HIV can be transmitted through kissing, (11.5%) did not know about Sexual Transmitted Diseases (STDs and (10%) didn't have the knowledge of HIV as one of STDs(27). Beside this, lack of comprehensive knowledge on HIV increase the likely hood of starting sexual intercourse(48).

2.5.2.2. Partner factors

Generally knowing partners' status and communication about safe sex and sero-status were mostly significantly protective association with risky sexual behavior in most related studies, but on youth living with HIV are found as to be non-protective.

Knowing partner's status:-Study done in Caribbean country, Haiti, and Sub-Sahara Africa, Uganda among PLHIV reported that more than half (57.5 % vs 56.3%) of participant had no knowledge of their sex partners' HIV sereo-status; more than three in fifth (63.4 % vs 76.5%) engaged in unprotected sexual intercourse(13,21). Likewise, the likelihood of engaging in a multiple sexual partnership is 2.6 times higher among respondents who did not know about the HIV status of their sexual partners as compared to those who did. Result from study done in Tanzania among young people living with HIV attending care and treatment clinics(17). Even if, having unprotected sex with persons of unknown HIV-sereo-status is three time more often indicated by HIV positive participants, a finding from a cases control study among HIV positive case and HIV negative controls in Germany(49). On the other hand, in Rwanda among HIV + and HIV- women shows that, who were HIV positive were nearly 10-fold more likely to use condoms than HIV negative women(44).

Communication about safe sex:- Not discussing or partly discussing about safe sex and condom use with sexual partners are found as associated factor with unprotected sexual intercourse on study on Deberzeit, Ethiopia among PLWHIV (34). Similarly a case control study among newly infected HIV positives point out that, having a conversation about HIV sero-status and using a condom during intercourse before having sex was associated with a lower risk of infection(49).

2.6. HIV Sero-status Disclosure

Participants who reported disclosing their HIV status to their partners were more likely to report consistent condom use(45). Similarly, participants who disclosed their HIV status had significantly lower odds of engaging in unprotected sex than those who withheld disclosure(22). However, studies among youth found that, disclosure to sexual/romantic partners and to friends/others were not significant in risky sexual behavior (16,50). Even if, Study in Jamaica among PLHIV, conclude that disclosure sero-status was less likely to condom use in last sex (15). On the other hands, study conducted among youth HIV positives found that having multiple partner lesser disclosure to partner (21,45).

Study conducted on correlates of ever had sex among perinatally HIV-infected adolescents in Uganda was found that, 44 % did not use condoms during the last sexual encounter, more than 56.3 % did not disclose HIV status(13). And data from longitudinal study showed that disclosure among participant is 88.7%; with the higher rate among heterosexual partner than homosexual partner. In addition, engagement in risky sexual behavior was 23.1% and higher reported was reported among heterosexual partner even if it is not significant(29.5% vs 18%)(22). Above all, as evidence show the reason for non-disclosure was perceived partner reactions and consequence of disclosure(51). Result from qualitative study in Kenya among HIV positive youth; revealed that fear of stigma due to disclosure of their HIV status to whom they depend on contributed to lost follow up from treatment(23).

In summary, literatures have shown many factors exposed youth to risky sexual behaviors. Most of them have identified sero-status disclosure as a factor. As well as the magnitude of disclosure to sexual partner and incident of risky sexual behaviors, yet not get study compare risky sexual behavior based on sero-status disclosure. Therefore this study will try to look the association of disclosure to any-body with risky sexual behaviors among youth ART users; because it is crucial to

assess status risky sexual behaviors based on sero-status disclosure; so as to design appropriate intervention.

2.7. Conceptual framework

In summary, the conceptual framework (figure 1) shows the possible factors for YLHIV to engage in risky sexual behaviors. These various factors were influencing risky sexual behaviors; this conceptual framework suggests two sets of characteristics: distal factors and proximate factors. The distal factors (age, sex, educational status, occupation, employment status, living arrangement, time since knowing HIV status and stigma) and proximate factors (knowledge regarding HIV prevention, alcohol and substance use, knowing partners status and communication about safe sex) are considered as independent factors affecting risky sexual behaviors, which are the dependent variables (outcomes).

Using this conceptual framework, it is hypothesized that sero-status disclosed individuals were less likely to engage in risky sexual behaviors. Thus it is predicted that proximate factors will moderate the differences in the risky sexual behaviors between sero-status disclosed and sero-status non-disclosed youths.

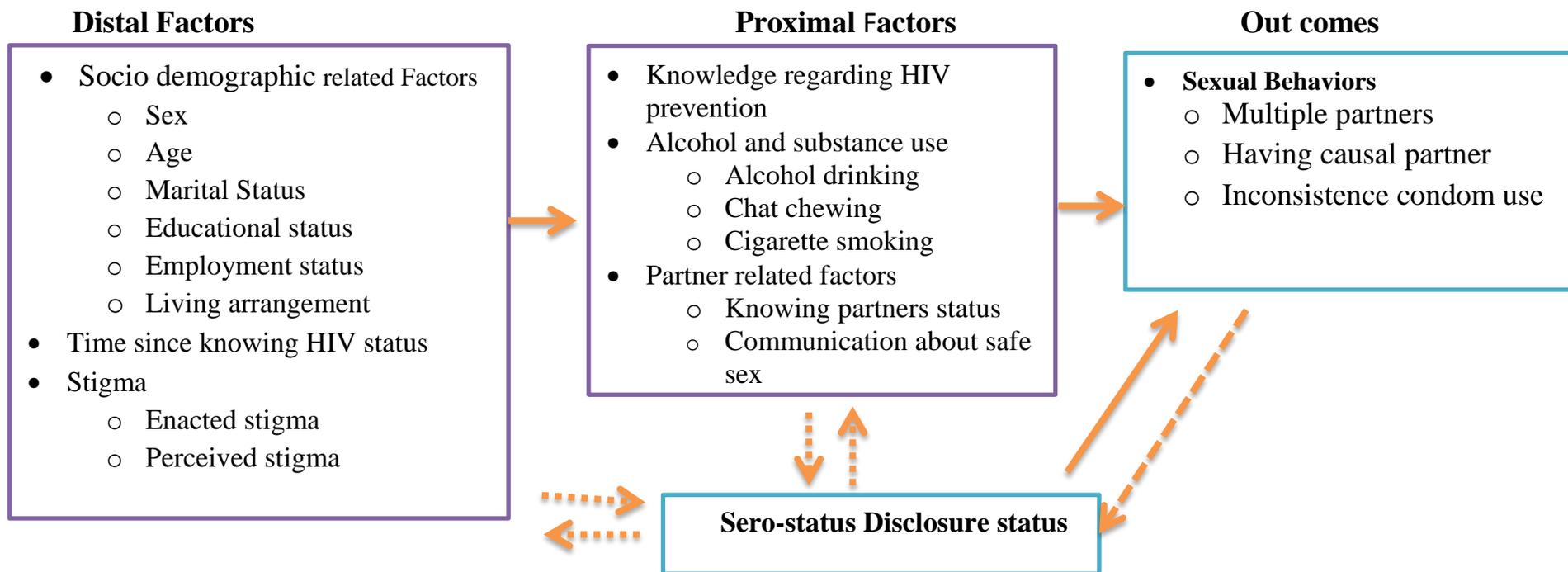


Figure 1: Conceptual framework developed to show the relationship between factors that may contribute to differences in sexual risk behaviors among HIV positive youths in Bench Maji Zone, Ethiopia.

(Source: (17,33), the broken arrow was not the focus of this study)

2.8. Significance of Study

The Ethiopian government work to make HIV infection is non-public concern. Like many developing countries, Ethiopian youth engage in risky sexual behaviors and this risky practice among HIV infected youth is a public health concern due to it be a means of new infection or re-infection with drug resistance new strain and also poor health outcomes among infected youths.

In order to implement relevant and specific interventions to prevent either primary or secondary sexual transmission of HIV and to adopt low risk healthier life style for youth, we conducted this study to identify the factors associated with risky sexual behaviors among YLWHA on ART. The findings of this study help to give evidence about risk reduced behaviors for health care workers among youth living with HIV. Also it will provide important information for organizations working in the issue of HIV/ADIS in the country and specifically in the study area. It also helps for researchers as baseline information for further study. Finally for HIV positive youths, it is helpful to encourage youths to approve low-risk sexual behaviors.

Chapter Three: Objectives

3.1. General Objective:

To determine association of sero-status disclosure with risky sexual behavior among youth attending anti-retroviral therapy in Bench-Maji zone, Southwest, Ethiopia, 2018

3.2. Specific objectives:

1. To compare magnitude of risky sexual behavior among youth those disclosed their sero-status and not disclosed their sero-status among HIV positive youths attending anti-retroviral therapy in Bench Maji zone, Ethiopia
2. To determine the association of risky sexual behavior with sero-status disclosure among HIV positive youths attending anti-retroviral therapy in Bench Maji zone, Ethiopia
3. To identify factor associated with risky sexual behavior HIV positive youths attending anti-retroviral therapy in Bench Maji zone, Ethiopia

Chapter Four: Methods and materials

4.1. Study area and period

Bench Maji Zone is located in Southern Nation Nationality Peoples Regional State (SNNPR), Southwest Ethiopia, around 565km away from the capital city, Addis Ababa. The zone bounded by Keffa zone in the North and Northeast, Sheka zone in the Northwest, South Omo zone in the Southeast, Gambella region in the Southwest and South Sudan in the South. It has one town administration and 10 rural districts. Regarding public health institution of the zone, there are one teaching hospital, 39 health centers, and 219 functional health posts. One hospital and 10 health centers are provide ART services. A total of 2,894 HIV positive adults visiting these health facilities and have been taking ART in 2017/2018 fiscal year. Among this nearly 17% were youth. The study was conducted from March 21 to May 04, 2018 in three selected health institutions namely Mizan Health Center, Mizan-Tepi University Teaching Hospital and Gabisa health Center.

4.2. Study design

Institution based cross sectional study was conducted

4.3. Population

4.3.1. Source Population

The source population was all HIV positive youths in age group (15-24) years old, who attend ART clinics in Benchi Maji Zone.

4.3.2. Study Population

An HIV positive youth in age group (15-24) year's old, attending ART clinics from selected ART clinics in Bench Maji Zone during data collection periods.

4.3.3 Study unit

Individual attending ART services

4.4. Inclusion and Exclusion criteria

4.4.1. Inclusion criteria:

Participants were eligible to participate in the study if they were in the age range of 15 to 24 years old and had follow up at least six months in the study sites prior to the start of the study to

give equal space for being ART user and disclosure and attended ART clinic during data collection periods.

4.5. Sample size and Sampling technique / procedures

4.5.1. Sample size determination

The sample size for this study was determined using Epi Info™ 7.0.8.3 statistical software based on selected exposure variables proportions from other similar studies in Uganda and Tanzania (14,17) reveals the following results.

By taking power of the study =80%, confidence interval =95% exposed: unexposed ratio=2:1 and non-response rate 10%

Table 1: Sample size was determined using selected variables for study of association of sero-status disclosure with risky sexual behavior, in Bench-Maji Zone Southwest-Ethiopia 2018.

s/n	Variables	P1	P2	CI	Power	SS	NRR	TSS
1.	Age	P1(15-19)=7.3	P2(20-24)= 41.3	95%	80(%)	63	6	69
2.	Sex	P1(Male)=84.4	P2(Female)=68.0	95(%)	80(%)	270	27	297
3.	ART use	P1(on ART)=65.6	P2(not on ART)= 82.9	95(%)	80(%)	255	26	281

From the above sample size calculations the larger sample size is 297.

4.5.2. Sampling technique and procedure

Based on the number of HIV positive youth served, three health facilities those providing ART were included in the study, which are one teaching hospital and two-health centers. The services provided in three selected sites were regular checkups, ART drugs provision, CD4 count, counseling sessions about adherence to treatment, and condom use.

Before starting the actual data collection, the total enumerations of youth who had follow-up schedule and number of youth being include in appointment spacing were reviewed.

Accordingly, 270, 113, and 55 youth from the hospital, Mizan HC and Gabisa HC were identified at follow-up schedule respectively. Regarding appointment spacing; youth less than 18 years old, who are not willing to be in the appointment spacing schedule and who were newly enrolled were not include.

To each study health institutions, proportional to size allocation was made based on the identified number of youth. From each study health institutions, study subjects were included in the study consecutively until the calculated sample size was reached.

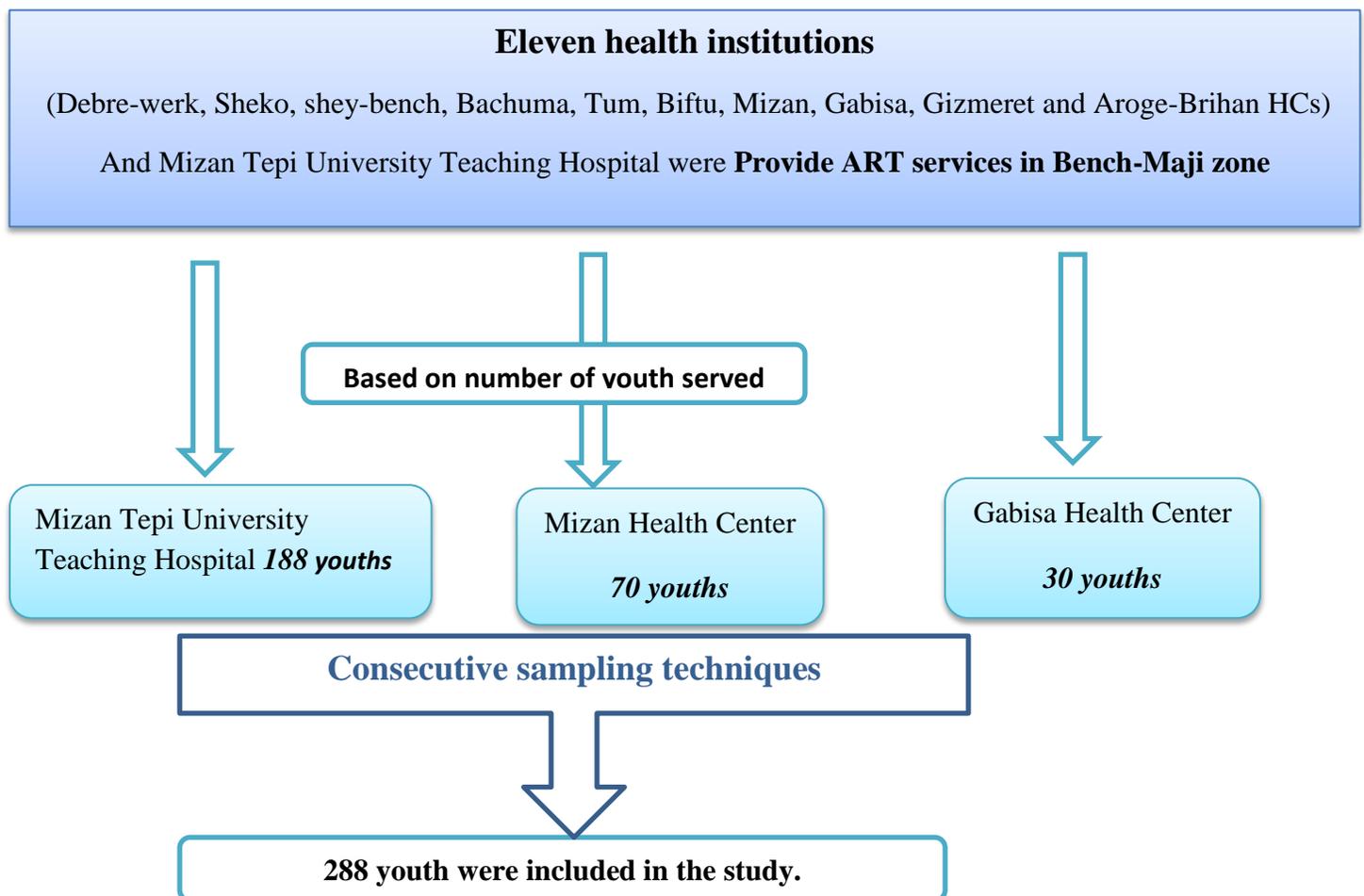


Figure 2: Schematic presentation of sampling procedure to association of sero-status disclosure with risky sexual behavior among youth attending ART in bench-maji zone, south west-Ethiopia, 2018.

Table 2: Sampling procedure for association of sero-status disclosure with risky sexual behavior among youth attending ART in Bench-maji zone, south west-Ethiopia, March21-May/4 2018.

S/N	Name of the Facilities	Eligible study participants from the preliminary assessment	Planned study participants with proportional allocation	Sampled study participants
1.	Mizan-tepi University Teaching Hospital	270	192	188
2.	Mizan Health Center	113	74	70
3.	Jeba Health Center	55	31	30

4.6. Variables

4.6.1. Dependent variables

Risky sexual behavior

4.6.2. Independent variables

Age

Sex

Educational status

Occupational status

Marital status

Living arrangement

Time since diagnosis

Perceived stigma

Enacted stigma

Alcohol drinking

Cigarette smoking

Chat chewing

Knowledge regarding HIV prevention

Sero-status disclosure

Knowing partner's status and

Communicate about safe sex

4.7. Data collection procedures

4.7.1. Instrument

Data was collected using structure interviewer administrative questioners. Instrument was adapt to local context after reviewing of relevant literatures in English then translated to Amharic (which is official and commonly spoken languages of the zone). To keep consistency, it translated back to English by another individual who had good ability of both languages (13,14,17,33,41). It has six parts, socio-demographic, ART related and stigma, HIV related Knowledge, HIV sero-status disclosure, alcohol and substance use and partner and sexual behaviors.

4.7.2. Personnel

Two female employed ART care assistance and three male nurse graduates were employed as data collector and three (1 female and 2 male) BSC nurse, one for each site were hired as supervisor. The investigator and supervisors were had the responsibility of coordinating the overall data collection process.

4.7.3. Data quality control

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. Instrument was pre-tested on 15 participants' (5%) of the total sample size outside the study area at Biftu health center ART clinic before the actual data collection. It was found in Guraferda Wored which serves more than 100 ART clients which had similar characteristics to the study sites in terms of the variables of interest. Questions which caused difficulty in the pre-test were rephrased and modified.

Training was given for data collectors and supervisor by the investigator for three days (one day for each of study sites) on objective of the study, on the contents of the questionnaire, on issues of maintaining confidentiality, to make them familiar with the instrument, exercised simplified and non-judgmental approach of questioning and the way of informed consent and assent taking. The data collection process was monitored by supervisors and the principal investigator. The completeness and consistency of the data was checked before the study participant leaves. Finally data was entered into Epi-data Version 3.1.

After data collection, each questionnaire was checked for completeness, consistency, and clarity daily by supervisors. Data entry was done using EPI data version 3.1 statistical software by principal investigator and data cleaning was done before exported to SPSS windows version 20 for analysis.

4.8. Operational definitions

Risky sexual behavior:- in this study refers to behavior engaging in to unprotected sex or sex without use of condom, sex with multiple partners'(>=two), and sex out of steady partners. Using Yes or No responses, if one of the above the response is "Yes" in last twelve months prior the study an individual then categorized under risky sexual behavior, (coded as 1) and if say no to all of the above categorized under non risky sexual behavior, (coded as 0).

Disclosure of HIV sreo-status:- telling one's own HIV status to any family members, sexual partners and friends and categorized in to status disclosed group, (coded as 1). And HIV status non- disclosed was not telling for anyone of the above and (coded as 0).

Knowledge regarding HIV preventions: was assessed by a composite measure of precise knowledge based on responses to five of the questions(three prompted questions related to HIV prevention, in combination with rejecting two myths and misconceptions about the disease(41)(52). if a participant answered the five set of questions correctly they coded as 1 (knowledgeable), whereas if they answered any of the set questions incorrectly they code as 0 (non- knowledgeable).

Stigmatization related to status: any act of discriminates against those living with HIV/AIDS (whether in thought or in action) and sees those people as very different from himself encountered after testing positive labeled as enacted stigma (yes, coded=1) and no, coded =0) and the second is perceived stigma which is any encountered stigma when a person either experiences or fears discrimination due to being or becoming HIV-positive in twelve months prior to the study using (yes, coded=1 and no, coded =0).

Living arrangement: means the youth asked to whom currently living with and categorized in to with either mother or father (coded=1), with relatives (coded=2), with friends (coded=3), with wife or husband (coded=4), and lonely (coded=5).

Alcohol drinking: mean ever use of any form either homemade or factory bottled alcohol included 'tej', 'tella' and 'areke' and bottled beer, wine, and others.

Substance use: in this study refers ever use of materials like cigarette and chat.

Causal partner: sexual partner out of formal or regular relation ship

4.9. Measurements

Risky sexual behavior:- in this study was computed from three sexual behavior questions first multiple sex partners', the second having non-regular partners and inconsistency use of condom.

Multiple sexual partnerships were measured by asking the participants the following question: "Overall how many sexual partners did you have during the past 12 months?" The participants had to indicate the total number of partners and these were then grouped into two groups, those who indicated one partner only, and those who indicated two or more partners. To indicate the type of partners; "what is the relationship between and your last sex partners?" and these were then grouped into two groups, those who indicated steady partner, and those who indicated casual partners. Condom use during last 12 months was determined by asking the participants the following: "Did you use a condom at last 12 months sex act?" The responses were either "Never" or "Usually" or "Often"

Disclosure of HIV-positive sero-status:- telling one's own HIV status to any family members, sexual partners and friends and categorized in to disclosure types. And HIV status non-disclosure/ non-disclosed:-are not telling for all of above(50).

Participants are asked if they had disclosed that they were HIV-positive to a variety of individuals including the following: a current sex/romantic partner, family member (mother, father, sisters, brothers or other relative), friend, priest/clergy, or other person teachers, neighbors. These items are used to create two categorical variables, if the participants disclosed to any of the above categories as sero-status disclosed (code=1) and not disclosed to any one of the above referred to sero-status non-disclosed (code=0).

Knowledge regarding HIV preventions: was assessed by a composite measure of precise knowledge based on responses to five of the questions(three prompted questions related to HIV prevention, in combination with rejecting two myths and misconceptions about the disease(43,54).

In terms of knowledge about HIV transmission and prevention, namely, “To prevent HIV infection, a condom must be used for every round of sex”, “One can reduce the risk of HIV by having fewer sexual partners”, and “Can a healthy looking person have HIV”. If a participant answered the first three set of questions correctly they code 1, whereas if they answered any of the questions incorrectly they code 0. Concerning misconceptions about HIV transmission, if participant correctly rejected the two myths and misconceptions about the disease namely, “Can AIDS be cured”, and “Can a person get HIV by sharing food with someone who is infected”.

They scored 1, whereas if they answered any incorrectly they scored 0(41). In this study, we reported the proportions of participants who correctly answered both combinations of questions, code 1(knowledgeable), whereas if they answered any combinations of questions incorrectly they code 0(non-knowledgeable).

Alcohol and Substance use: was assessed using five time based measurements Never, Always (daily), Often (3-4 times /week), occasionally (once per month) and rarely (on holydays) then categorized in to never use (coded =1), frequent use greater than or equal to three times per week, (coded =2) and occupationally once per month and on holydays (coded =3).

Stigma (15 questions) was assessed in two ways; the first is enacted stigma was assessed with eight Yes (coded as 1) and No (coded as 0) response option questions addressing stigma encountered after testing positive.

The second is perceived stigma with seven Yes (coded as 1) and No (coded as 0) questions encountered twelve months prior to the study adopted from study conducted on risky sexual practice among PLHIV (31). In each case, respondent’s score was summed and scores above the mean indicated having enacted stigma (yes) and perceived stigma (yes) and below the mean indicated have no enacted (no) and perceived stigma (no).

4.9. Data analysis

Data was entered using EPI-data version 3.1, then export to SPSS version 20 to which analysis was done. Descriptive statistics was computed for all variables according to their type. Bivariate analysis was done to examine the association between independent variables and dependent variable (risky sexual behavior) and chi-square testes were used for statistical inference.

All covariates statistically significant a P-value less than and equal to 0.25 in bivariate analyses were included in the multivariable analysis. Multivariable logistic regression was used to estimate adjusted ORs (AOR) and 95% CIs using backward RL selection method and statistical significance was based on a P-value less than 0.05 and discussed.

Based on the model summary, our final sets of model variables was indicated that 16.9% to 22.7% of the variability. Hosmer and Lemeshow test show that the model was good fit at chi-square= 6.756, degree of freedom= 7, p-value =0.563. It was correctly classified 69.5% of cases.

4.10. Ethical consideration

A proposal was presented to department of population and family health, Jimma University and approved. Ethical clearance from institutional review board of Jimma University was obtained. Then permission letter was obtained from zone health bureau to selected health institutions, after discussing of the purpose of the study. For all participants, the aim of the study was explained and reassured that their responses be used only for research purposes and remain confidential. Willingness to participate on a study was asked from respondent (age >18 years) and for the participants who were under 18 years, verbal assent was asked from the parents or guardians by face to face or through making call phone and the data collector ticking a checkbox as a sign of agreement then written informed consent was obtained from HIV positive youth before interview. Face to face interview was held in separate privet room. No need of writing their names or any identification in the questionnaire.

4.11. Dissemination plan

The final finding report of this study will be presented to department of population and family health, Jimma University. Then the copy of a result will be submitted to concerning bodies to zone health departments and to the study sties in addition to the department of population and family health, Jimma University. Finally I will be attempted to publish it in peer reviewed journals.

Chapter five: Result

5.1. Socio-demographic characteristics

A total of 288 youth living with HIV attending ART clinic in Bench Maji Zone were interviewed and included in the analysis, making response rate 96.9%. Females were accounts 185(64.3%) of the participants. The median age of the respondents was 22.00 years.

Orthodox religion followers were accounts 137(47.6) of the participants followed by Protestant 77(26.7%). By ethnic composition Amhara and Keffa comprises 95(33%) and 73(25.2%) of participants respectively. One hundred forty seven (51.1%) of the participants were live out of Mizan-Aman town.

Regarding to educational status; 115(39.9%) were attended secondary and above. Sixty four (22.2%) participants had no formal education. Concerning marital status; 120(41.7%) were married or in relationship. Regarding living arrangement 112(38.8%) of participants were live with their either with wife or husband (Table 2).

Table 3: Summary of socio-demographic characteristics of youth attending ART clinics in Bench Maji zone, southwest-Ethiopia, March/21 to May/4, 2018 (n=288)

Variables	Number	Percent
Sex		
Female	185	64.3
Male	103	35.7
Age		
15-19	64	16.7
20-24	224	83.3
Religion		
Orthodox	137	47.6
Muslim	56	19.4
Protestant	77	26.7
Catholic	11	3.8
Others ¹	7	2.4
Ethnicity		
Amhara	95	33.0
Bench	34	11.8
keffa	73	25.2
Oromo	37	12.8
Dizi	34	11.8
Other ²	15	5.2
Residence		
Mizan-Aman	141	49.9
Out of MA	147	51.1
Educational status		
No formal education	64	22.2
Primary	109	37.8
Secondary & above	115	39.9
Occupational status		
Employed	128	44.4
Student	67	23.3
unemployed	93	32.3
Marital status		
Never married	128	44.5
Married/In relationship	120	41.7
Divorced/widowed	40	13.8
Living arrangement		
With family/Relative	98	34.0
Spouse	112	38.8
Alone/Friends	78	27.1

Others¹ Adventist, Hawariyat Others² Tigre, Dawuro, Wolayta, Sheka, Surma, Hadiya, Shinasha, Yem

5.2. Distal and proximal factors of respondent

Regarding time since diagnosis, about 147(51.1%) of participants knows that they were infected with HIV/AIDS before two years. Concerning knowledge regarding HIV prevention, 184(63.8%) of participant had knowledge regarding HIV prevention.

Regarding stigma, enacted stigma was reported by 106(36.8%) of participants. Perceived stigma was reported by 34(11.8%) of participants. Two hundred eighteen (75.7%) participants were never drank alcohol (Table 3).

Table 4: Summary of distal and proximal factors of HIV positive youth attending ART clinics in Bench Maji zone, southwest-Ethiopia, March 21 to May/4 2018(N=288)

Variables	Number	Percent
Time since know your HIV status		
With-in 2years	141	48.9
Before 2 years	147	51.1
HIV related knowledge		
Knowledgeable	184	63.8
Non- Knowledgeable	104	36.1
Enacted Stigma		
Yes	34	11.8
No	254	88.2
Perceived Stigma		
Yes	106	36.8
No	182	63.2
Alcohol drinking		
Never	218	75.7
>3 times per week	28	9.7
1-3 times per month/ at holidays	42	14.6
Cigarette smoking		
Never	253	87.8
>3 times per week	21	7.3
1-3 times per month/ at holidays	14	4.8
Chat chewing		
Never	121	42
>3 times per week	43	14.9
1-3 times per month/ at holidays	78	27.1

5.3. Risky Sexual Behaviors and partner related response of respondents

Regarding to sexual behaviors of respondents; 233(80.9%) participants were had ever had sexual intercourse. Among those ever had sexual intercourse, 168(72.1%) participants were had sexual intercourse in last12 months prior to the date of data collection.

From those who have had lover and/or had ever sexual intercourse 123(67.6%) participants were communicate about safe sex and (64.2%) were had sexual intercourse with a partner of negative or unknown sero -status (Table 4).

Table 5: Summary of proximal and risky sexual behaviors of HIV positive youth attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018(N=288)

Variables	Number	Percent
Ever had sexual intercourse(<i>n</i> =288)		
Yes	233	80.9
No	55	19.1
Had sexual intercourse in the last 12 months (<i>n</i> =233)		
Yes	168	72.1
No	65	27.8
Type of r/ship with how had sex in last12months (<i>n</i> =168)		
Steady	119	70.8
Casual	49	29.1
Number of sex persons had in last 12 months(<i>n</i> =233)		
One	115	68.4
>= two	53	31.6
Use of condom in last12months(<i>n</i> =233)		
Never/Often	117	72.2
Always	45	27.7
Have had lover (<i>n</i> =288)		
Yes	176	61.1
No	112	38.9
Communicate about safe sex practices(<i>n</i> =182) (<i>n</i> =had sax and/or lover)		
Yes	123	67.6
No	59	32.4
Sero -status of sex partner (<i>n</i> =182)		
Positive	63	35.8
Negative /unknown	119	64.2

5.4. Comparison of risky sexual behaviors based on disclosure among HIV positive youth attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018

Never or often use of condom was nearly similar among both non-disclosed and disclosed participants (72.8% vs 71.9%) (Chi-square=0.132, degree of freedom=1, p-value=0.710). Sexual intercourse with non-regular partners was higher among non-disclosed (56.2%) than disclosed participant (22.8%) and the difference was statistically significant (chi-square=14.035, degree of freedom=1 p-value<0.001). The overall risky sexual behaviors was no difference among non-disclosed (59.5%) and disclosed participant (49.1%) (Chi-square=1.284, degree of freedom=1 p-value=0.257) (Figure 3).

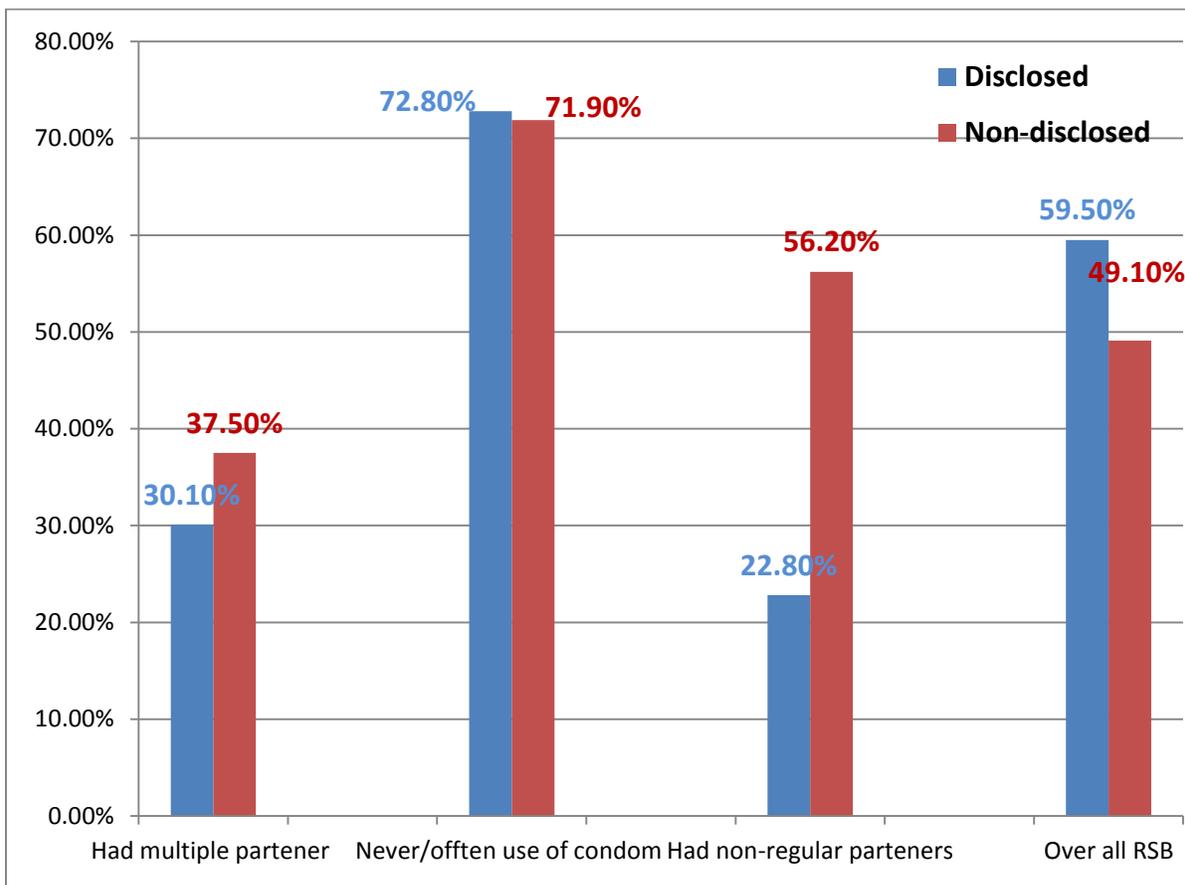


Figure 3: Risky sexual behavior among disclose and non-disclosed youth attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018

5.5. Factors associated with risky sexual behaviors of youth living with HIV attending ART in Bench Maji zone, southwest-Ethiopia, March/21 to May/4 2018

In the bivariate analysis ten variables occupational status, marital status, living arrangement, alcohol drunk, chat chew, knowledge regarding HIV prevention, Partner status, Communicate safe sex, and sero-status disclosure were candidate for the multivariate analysis. However, three variables marital status, knowledge regarding HIV prevention and alcohol drinking were significantly associated with risky sexual behaviors multivariate analysis (Table 3).

Marital status and alcohol drinking were positively associated with risky sexual behavior and knowledge regarding HIV prevention was associated negatively.

Regarding marital status, the odds of engaging in risky sexual behaviors was 2.4 times higher among youth who were married or in relationship compared to those youth never married. [AOR (95% CI) 2.426 (1.115, 5.280)] and p-value=0.025.

Concerning alcohol drinking, the odds of engaging in risky sexual behavior were nearly three times higher among three and more times per week alcohol drunker than never alcohol drunker. [AOR (95% CI) 3.193(1.192-8.552) at p-value = 0.021 and the odds of engaging in risky sexual behavior was 2.5 times higher among those 1-3 times per month or at holidays alcohol drunker than never alcohol drunker[AOR (95% CI) 2.674(1.152-6.206)] at p-value = 0.022.

The odds of engaging in risky sexual behavior was two times higher among youth who had no knowledge regarding HIV prevention than youth had knowledge regarding HIV prevention [AOR (95% CI) 2.032(1.032,3.791)] at p-value = 0.026.

In the final multivariate model, the association between sero-status disclosure and risky sexual behavior remained statistically insignificant after adjusting for marital status, alcohol drunk, and knowledge regarding HIV prevention (Table 6).

Table 6: Summary of association of variables with risky sexual behavior among HIV positive youths attending ART in Bench Maji zone, southwest-Ethiopia, March / 21 to May/4 2018

Variables	Risky Sexual Behavior		[COR (95%CI)]	AOR (95%CI)
	Risky	Non-risky		
Sex				
Male	47(35.1)	28(28.3)	1.370[0.780,2.406]	
Female	87(64.9)	71(71.7)	1	
Age category				
15-19	9(6.7)	9(9.1)	1	
20-24	125(93.3)	90(90.9)	1.389[0.530,3.638]	
Educational status				
No formal edn	35(26.1)	26(26.3)	0.945 [0.942,1.236]*	
Primary	52(38.8)	40(40.4)	0.913 [0.498,1.674]	
Secondary& above	47(35.1)	33(33.3)	1	
Occupational status				
Employed	70(52.2)	53(53.5)	1	
Student	10(7.5)	11(11.1)	0.688[0.272,1.741]	
Non-employed	54(40.3)	35(35.4)	1.168[0.670,2.035]	
Marital status				
Never married	36(26.9)	40 (40.4)	1	1
Married/In relationship	86(64.2)	32(32.3)	2.986[1.629,5.475]**	2.426[1.115,5.280]*
Divorced/widowed	12(9.0)	27(27.3)	0.4940.218,1.116]	0.669[.277,1.618]
Living Arrangement				
Family/Relatives	23(17.2)	32(32.3)	1	1
Spouse	78(58.2)	30(30.3)	3.617[1.830,7.151]**	2.165[0.953,4.920]
Alone/Friends	33(24.6)	37(37.4)	1.241[0.609,2.530]	1.206[0.548,2.656]
Time since know HIV status				
<=2years				
>2years	47(35.1)	37(37.4)	0.905[0.527,1.554]	
	87(64.9)	62(62.6.1)		
knowledge regarding HIV prevention				
Knowledgeable	95(70.9)	53(53.5)	1	1
Non- Knowledgeable	39(29.1)	46(46.5)	2.114[1.228,3.639]*	2.032[1.032,3.791]*
Enacted Stigma				
Yes	119(88.8)	14(14.1)	1.307[0.599,2.850]	
No	15(11.2)	85(85.9)	1	
Perceived Stigma				
Yes	96(62.3)	86(64.3)	1.320[0.775,2.249]	
No	58(37.7)	48(35.8)	1	
Alcohol drinking				
Never	86(64.2)	78(78.8)	1	1
>3 times per week	18(13.4)	10(10.1)	1.633[0.711,3.750]	3.193[1.192,8.552]*
1-3 times per month/ at holidays	30(22.4)	11(11.1)	2.474[1.162,5.267]*	2.674[1.152,6.206]*
Cigarette smoking				
Never	112(83.6)	87(87.9)	1	
>3 times per week	14(10.4)	6(6.1)	1.812[0.669,4.910]	
1-3 times per month/ at holidays	8(6.0)	6(6.1)	1.036[0.347,3.096]	
Chat chewing				
Never	59(44.0)	60(60.6)	1	
>3 times per week	30(22.4)	13(13.1)	2.347[1.116,4.936]*	
1-3 times per month/ at holidays	45(33.6)	26(26.3)	1.760[0.946,3.213]	
Partner status				
Negative /unknown	112	30	1	
Positive	22	12	2.036[0.905-4.580]*	
Communicate safe sex				
Yes	84	35	1	
No	50	7	0.330[0.144-0.753]**	
Sero-status disclosure				
No one	28(20.9)	27(27.3)	1	1
Only one	46(34.3)	41(41.4)	1.082[0.550,2.127]*	0.817[0.368,1.816]
>one	60(44.8)	31(31.3)	1.866[0.942,3.698]	1.242[0.562,2.746]

***sig at p-value<0.0001, ** sig at p-value<0.05, * sig at p-value<0.25, 1 reference category

Chapter six: Discussion

In this study the only significant difference was observed in sexual intercourse with causal partners. Sero-status non-disclosed participants were reported higher causal partner (56.2%) than disclosed participants (22.8%) (Chi-square=14.035, degree of freedom=1 p-value<0.001). This might be it is established that openly communicating about sexual health issues and safer sex practices was more complex with a causal partner due to the trust and foundation made with a causal sexual partner. Other risky sexual behaviours never or often use of condom and having multiple sexual partners were no difference among both non-disclosed and disclosed participants [(72.8% vs 71.9%) (Chi-square=0.132, degree of freedom=1, p-value=0.710)] and [(30.1% vs 37.5%) (Chi-square=0.649, degree of freedom=1 p-value=0.421)] respectively. This implies that disclosure was no effect in controlling risky sexual behavior of youth.

In this study sero-status disclosure was left insignificant association after adjusting for few variables in the final model with youth risky sexual behavior. Even though it did not reach to statically significant associated factor of youths risky sexual behaviors (P=0.257). This result is similar to study conducted on youth disclosure to sexual/romantic partners and to friends/others are not significant in risky sexual behavior (p=0.96)(16). And this result is different with studies among youth disclosure reduce unprotected sex than those who withheld their status (45)(22).

These dis-similarities could be communication about sero-status among youth lesser the concern of transmission and other explanation might be youth were more interested in sexual experimentation(5).

Some authors have promoted disclosure as an HIV prevention strategy for people live with HIV including youth (21,22); this approach has sometimes been contributed to have shared responsibility towards risk reduction; The findings of this study suggest that despite the fact that disclosure reduces unprotected sex, 72.8% disclosed youth were reported never or often use of condom. These finding suggest that advocating for disclosure focused programs for young people will not effectively control the transmission. Disclosure should therefore be promoted alongside other HIV prevention strategies that address prevention needs of sexually active youth live with HIV.

In this study marital status was positively associated with risky sexual behavior. Youth who were married and/or in relationship were 2.4 times more likely to report engaging in risky sexual behavior compared to those never marrieds. And among those marrieds about 79 out of 86 (91.8%) married youth had use condom never or often. This might be related to, in many culture child after marriage was expected (52); similarly adolescents living with HIV have the same reproductive needs as other adolescents and they desire to have children and a family (20). But it was not investigated in this study. In order to get a clear understanding of the underlying reasons for unprotected sex, it might be necessary to investigate individual motives through a qualitative inquiry.

In the era of ART women who had HIV can give HIV free child. However the problem is that the transmission of infection with discordance partners and reinfection with drug resistant new strain among infected individuals. To reduce the high risk of HIV transmission within discordant couples and to minimize primary infection with drug-resistant strains of HIV, ART programs should consider not only prevention counseling and sexual partners testing, it should consider pre-pregnancy viral load suppression, the best option in the epidemic control and have higher safety of both to couple as well as for new born baby and break a continued transmission among married or in relationship ART clients.

A result is different from studies among HIV positive youth found that marital status was no association with of risky sexual behavior(14,17,50). Risky sexual behavior in this group might be attributed to the desire to have children. Study among youth show that the desires to have a biological child play significant role on sexual behavior of youth(14). The other reason for this might be that youth do not want to be different or rejected, they may be had pressure from husband or wife and the desire to live a normal life.

In this study being widowed and/or divorced were not reached to statically significant explanation. But study done in Ethiopia among adult HIV positives being widowed shows a 32% reduce the likelihood of engaging in unprotected intercourse(15). The possible reason might be differences in the demographic characteristics of the study participants. While this may reflect our sample, which included a low proportion of widowed or separated.

Others socio demographic variables like, gender, educational status, occupational status and living arrangement were had no association with risky sexual behavior of youth in this study. This finding was inconsistent with the results obtained in a studies done in other sub-Sahara countries like in central Uganda, sex and living arrangement were had association with youth risky sexual behaviors(14), living arrangement(13), occupational status (45) were significant association youth risky sexual behavior.

This study showed that youth who had no knowledge regarding HIV prevention was nearly two times increase the likelihood of engaging in risky sexual behavior than those who had knowledge regarding HIV prevention. This finding contradict with study from Uganda among HIV positive youth revealed that having knowledge on STI transmission was not identified as significant association with risky sexual behavior(18). However, other study among non-infected youth in Ethiopia were found that youth who had no comprehensive knowledge on HIV was found to be 8.2 times more likely to be engaged in risky sexual behavior (having sex in early age) compared with those who had knowledge (19). This is in line with the fact that people that are knowledgeable could take care of HIV infection and transmission, as they knows both the transmission and prevention methods and then be alert in the fashion of reducing transmission and acquiring.

Communication about sexual health between youth and older family member including health professionals was a taboo in most sub-Saharan countries including Ethiopia. On the other hand, in this study 64(22.2%) of study participant were did not had formal education this might restrict them to get information through reading or through other means like internet, it is not yet investigated. So enabling youth to adjust healthier life it should consider the existing youth problem accordingly.

Alcohol drinking investigated in this study was also had statistically significant association with risky sexual behavior of youth. This result is consistent with other studies done among HIV positive youth shown that alcohol drinking was significant association with risky sexual behavior(13,17,45,50).

In this study the odds of engaging in risky sexual behaviors was 3.2times higher among 1-3 times per week alcohol drinker than never alcohol drinker. And the odds of engaging in risky

sexual behaviors was 2.7 times higher among 1-3 times per month or on holiday's alcohol drinker than never alcohol drinker. This is also similar to earlier findings where alcohol users were 2 times more likely to engage in risky sexual behavior than non-users in Ethiopia(15).

This finding was also similar to studies conducted in Uganda among adolescents revealed that never-alcohol drinker were less likely to engage in risky sexual behavior than alcohol drinker (13,14,17,45,50). The reason for this could be because alcohol use affects decision making which may lead to risky sexual behavior; so that non-alcohol usage reduce this alcoholic effect and protect them-selves.

The use of alcohol may not only decrease the ability to make rational judgments and provoke risk behaviors as unprotected sex. It also had a health concern because alcohol consumption among HIV-positive persons has been associated with decreased adherence to ARV and poor liver function, then leads to worsened health outcomes among HIV positives. Therefore, the issue of alcohol use was not left behind as a simple association it had an impact in achievement of reducing HIV epidemic through 90% viral suppression.

Chapter seven: Conclusion and recommendation

7.1. Conclusion

The result of this study show that risky sexual behavior was presented among youth living with HIV and no difference was shown based on sero-status disclosure of participants except having causal partner.

In this study alcohol drinking, being married or in relationship and lack of knowledge regarding HIV prevention were found as positively associated factors for risky sexual behavior.

The result of this study showed that, other socio-demographic variables except marital status and others variable like stigma, chat and cigarette use, including sero-status disclosure was no association with risky sexual behavior among the study participant.

7.2. Recommendation

For Zonal Health Department

Responsible body for prevention of disease at this level should focus the risky sexual behaviors of HIV positive youth through counseling as well as health education.

For health providers

Health education or counseling might be provided to ART clients emphasize on refraining from any form of alcohol drinking and HIV prevention knowledge.

Health providers should encourage, support and allow married clients towards utilization of condom.

For researcher

Researchers and other concerned bodies should conduct further studies on the identified factors.

On married couples why they were more likely engaged in risky sexual practice through qualitative inquiry and the effect of alcohol on ART clients' health outcomes. And longitudinal study will be also good to see causal relation between risky sexual behavior and sero-status disclosure.

Chapter eight: Strength and Limitation of the Study

8.1. Strength

This study tried to assess risky sexual behaviors among high risk groups HIV positive youths. Moreover, it has tried to compares risky sexual behaviors based on sero-status disclosure

8.2. Limitations

The study may have some limitations. As the study relied on participants' self-report of historical events at some time before the date of data collection recall biases could present. Using face-to-face interviews for sensitive issues and the use of ART nurses and ART care support staffs as data collectors may have been introduced social desirability bias and therefore underestimate sexual activity. However, counselors were trained to minimize bias by using par-phrase, non-judgmental, simplified and friendly approaches.

Moreover sample were included in the study consecutively based on their enrolment to ART clinic apartment schedule and arrival, hence selection bias can be expected. The study is health facility based and therefore precludes generalization to all youths. In addition, this study did not assure the direction of causal relationship between independent variables and risky sexual behaviors.

Chapter Nine: Reference

1. Alexandra DH, Clifton. Status Report: Adolescents and Young People in sub-Saharan Africa. Opportunities and Challenges [Internet]. 2012. Available from: <http://www.prb.org/pdf12/status-report-youth-subsaharan-Africa.pdf>
2. UNFPA, save the children. Adolescent Sexual and Reproductive Health Toolkit for Humanitarian Settings A Companion to the Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings September 2009. Reproductive Health. 2009.
3. Dupuis. TK and G, . Population Reference B. 2017 World Population Data Sheet [Internet]. PRB's 2017 World Population Data Sheet. 2017. p. 20. Available from: http://www.prb.org/pdf17/2017_World_Population.pdf
4. Avert. Global response to HIV and AIDS | AVERT [Internet]. 2017 [cited 2018 Apr 11]. Available from: <https://www.avert.org/professionals/hiv-around-world/global-response>
5. Morris LJ, Rushwan H. Adolescent sexual and reproductive health: The global challenges. *Int J Gynecol Obstet* [Internet]. 2015 [cited 2018 Jan 29];131:S40–52. Available from: [https://www.figo.org/sites/default/files/uploads/project-publications/ASRH/Adolescent sexual and reproductive health-The global challenges-Morris-IJGO-2015.pdf](https://www.figo.org/sites/default/files/uploads/project-publications/ASRH/Adolescent%20sexual%20and%20reproductive%20health-The%20global%20challenges-Morris-IJGO-2015.pdf)
6. Sieving RE, Oliphant J a, Blum RW. Adolescent sexual behavior and sexual health. *Pediatr Rev.* 2002;23(12):407–16.
7. UNAIDS. UNAIDS Terminology Guidelines. 2015. 64 p.
8. UNADS. GLOBAL ADIS UPDATE 2016. *Dev Biol* [Internet]. 2016;276(2):391–402. Available from: http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf
9. (BMZ) B-M zone anual R. Zonal Semiannual Comprehensive HIV Prevention, Care and Treatment Performance HIV Report for HIV/AIDS RELATED REVIEW MEETING Bench-Maji zone Feb, 2010E.C. 2017.
10. EFDR (FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA). Ethiopia Demographic and healthSurvey 2011, Central Statistical Ababa, Addis Abeba Ethiopia ICF International Calverton, Maryland, USA March 2012. 2012;
11. HAPCO E. Country Progress Report on the HIV report on the HIV response,Addis Abeba, Federal Democratic Republic of Ethiopia,2014/3/31. Policy. 2014.
12. Kaushik A, Pineda C, Kest H. Sexual Behavior and Knowledge among Adolescents with Perinatally Acquired Human Immunodeficiency Virus Infection Compared to HIV-Uninfected Adolescents at an Urban Tertiary Center in New Jersey. 2016;2016:10–5.
13. Mbalinda SN, Kiwanuka N, Eriksson LE, Wanyenze RK, Kaye DK. Correlates of ever had sex among perinatally HIV-infected adolescents in Uganda. *Reprod Health.* 2015;12(1):1–10.

14. Ankunda R, Atuyambe LM, Kiwanuka N. Sexual risk related behaviour among youth living with HIV in central Uganda: Implications for HIV prevention. *Pan Afr Med J*. 2016;24:1–10.
15. Ncube B, Ansong J, Daniels K, Jolly PE, Campbell-Stennett D. Sexual risk behavior among HIV-positive persons in Jamaica. *Afr Health Sci* [Internet]. 2017;17(1):32–8. Available from: <https://www.ajol.info/index.php/ahs/article/download/156356/145968%0Ahttp://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emex&NEWS=N&AN=616445681>
16. Elkington KS, Bauermeister JA, Robbins RN, Gromadzka O, Abrams EJ, Wiznia A, et al. Individual and Contextual Factors of Sexual Risk Behavior in Youth Perinatally Infected with HIV. *AIDS Patient Care STDS* [Internet]. 2012;26(7):120613073308008. Available from: <http://online.liebertpub.com/doi/abs/10.1089/apc.2012.0005>
17. Mhalu A, Leyna GH, Mmbaga EJ. Risky behaviours among young people living with HIV attending care and treatment clinics in Dar Es Salaam, Tanzania: Implications for prevention with a positive approach. *J Int AIDS Soc*. 2013;16:1–7.
18. Malaju MT, Asale GA. Association of Khat and alcohol use with HIV infection and age at first sexual initiation among youths visiting HIV testing and counseling centers in Gamo-Gofa Zone, South West Ethiopia. *BMC Int Health Hum Rights* [Internet]. 2013;13(1):1. Available from: *BMC International Health and Human Rights*
19. Atuyambe LM, Ssegujja E, Ssali S, Tumwine C, Nekesa N, Nannungi A, et al. HIV/AIDS status disclosure increases support, behavioural change and, HIV prevention in the long term: A case for an Urban Clinic, Kampala, Uganda. *BMC Health Serv Res* [Internet]. 2014 [cited 2018 Jan 29];14(1). Available from: <https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/1472-6963-14-276?site=bmchealthservres.biomedcentral.com>
20. Mburu G, Hodgson I, Kalibala S, Haamujompa C, Cataldo F, Lowenthal ED, et al. Adolescent HIV disclosure in Zambia: Barriers, facilitators and outcomes. *J Int AIDS Soc*. 2014;17:1–9.
21. Conserve DF, King G, Malow R. Determinants of HIV Serostatus Disclosure to Sexual Partner Among HIV-Positive Alcohol Users in Haiti. *ADIS behav*. 2014;1037–45.
22. Przybyla S, Golin C, Widman L, Grodensky C, Earp JA, Suchindran C. Examining the Role of Serostatus Disclosure on Unprotected Sex Among People Living with HIV. *AIDS Patient Care STDS* [Internet]. 2014 [cited 2018 Jan 29];28(12):677–84. Available from: <http://online.liebertpub.com/doi/abs/10.1089/apc.2014.0203>
23. Wolf HT, Halpern-Felsher BL, Bukusi EA, Agot KE, Cohen CR, Auerswald CL. “It is all about the fear of being discriminated [against]…the person suffering from HIV will not be accepted”: A qualitative study exploring the reasons for loss to follow-up among HIV-positive youth in Kisumu, Kenya. *BMC Public Health*. 2014;14(1):1–11.

24. Tadesse G, Yakob B. Risky sexual behaviors among female youth in Tiss Abay, a semi-urban area of the Amhara Region, Ethiopia. *PLoS One*. 2015;10(3).
25. Nur RA. Determinants of Correct and Consistent Condom Use Among Mizan Tepi, University Students. *Sci J Public Heal* [Internet]. 2015;3(6):815–9. Available from: <http://www.sciencepublishinggroup.com/j/sjph>
26. Yohannes B, Gelibo T, Tarekegn M. Prevalence and Associated Factors of Sexually Transmitted Infections among Students of Wolaita Sodo University, Southern Ethiopia. *Int J Sci Technol Res*. 2013;2(2):1–9.
27. Woldeyohannes D, Asmamaw Y, Sisay S, Hailelessassie W, Birmeta K, Tekeste Z. Risky HIV sexual behavior and utilization of voluntary counseling and HIV testing and associated factors among undergraduate students in Addis Ababa, Ethiopia. *BMC Public Health* [Internet]. 2017;17(1):1–10. Available from: <http://dx.doi.org/10.1186/s12889-017-4060-y>
28. Tadesse BT, Foster BA, Berhan Y, Tang JW. Cross sectional characterization of factors associated with pediatric HIV status disclosure in southern Ethiopia. *PLoS One*. 2015;10(7):1–9.
29. Bogale A, Seme A. Premarital sexual practices and its predictors among in-school youths of shendi town, west Gojjam zone, North Western Ethiopia. *Reprod Health*. 2014;11(1):1–9.
30. Grunbaum J., Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, et al. Youth risk behavior surveillance United States. *J Sch Health*. 2004;74(December 2001):307–24.
31. Cooper ML. Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *J Stud Alcohol*. 2002;14:101–17.
32. Muche AA, Kassa GM, Berhe AK, Fekadu GA. Prevalence and determinants of risky sexual practice in Ethiopia: Systematic review and Meta-analysis. *Reprod Health* [Internet]. 2017 Dec 6 [cited 2018 Jan 29];14(1):113. Available from: <http://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0376-4>
33. Demissie K, Asfaw S, Abebe L, Kiros G. Sexual behaviors and associated factors among antiretroviral treatment attendees in Ethiopia. *HIV/AIDS - Res Palliat Care*. 2015;183–90.
34. Engedashet E, Worku A, Tesfaye G. Unprotected sexual practice and associated factors among People Living with HIV at Ante Retroviral Therapy clinics in Debrezeit Town, Ethiopia: A cross sectional study. *Reprod Health*. 2014;11(1):1–9.
35. Yalew E, Zegeye DT, Meseret S. Patterns of condom use and associated factors among adult HIV positive clients in North Western Ethiopia: A comparative cross sectional study. *BMC Public Health* [Internet]. 2012;12(1):1. Available from: <http://www.biomedcentral.com/1471-2458/12/1471-2458-12-308>
36. Alemu A, Berhanu B, Emishaw S. Challenges of caregivers to disclose their children's HIV

- positive status receiving highly active anti retroviral therapy at pediatric anti retroviral therapy clinics in Bahir Dar, North West Ethiopia. *J AIDS Clin Res* [Internet]. 2013 [cited 2018 Jan 30];4(11):2532155–6113. Available from: <http://dx.doi.org/10.4172/2155-6113.1000253>
37. Vreeman RC, Scanlon ML, Mwangi A, Turissini M, Ayaya SO, Tenge C, et al. A cross-sectional study of disclosure of HIV status to children and adolescents in Western Kenya. *PLoS One*. 2014;9(1):1–10.
 38. Guy AA, Niel K, Durán REF. Disclosure and Stigma of a Positive HIV - Serostatus : A Two - Step Cluster Analysis of the HIV Disclosure Scale. *AIDS Behav* [Internet]. 2017;(123456789). Available from: <https://doi.org/10.1007/s10461-017-1989-x>
 39. Toska E, Cluver LD, Hodes R, Kidia KK. Sex and secrecy: How HIV-status disclosure affects safe sex among HIV-positive adolescents. *AIDS Care - Psychol Socio-Medical Asp AIDS/HIV*. 2015;27(October 2017):47–58.
 40. Hardon A, Gomez GB, Vernooij E, Desclaux A, Wanyenze RK, Ky-Zerbo O, et al. Do support groups members disclose less to their partners? the dynamics of HIV disclosure in four African countries. *BMC Public Health*. 2013;13(1).
 41. Simbayi LC, Zungu N, Evans M. HIV Serostatus Disclosure to Sexual Partners Among Sexually Active People Living with HIV in South Africa : Results from the 2012 National Population-Based Household Survey. *AIDS Behav*. 2017;21(1):82–92.
 42. Brown MJ, Serovich JM, Kimberly JA. Depressive Symptoms , Substance Use and Partner Violence Victimization Associated with HIV Disclosure Among Men Who have Sex with Men. *AIDS Behav*. 2016;20(1):184–92.
 43. Beguy D, Mumah J, Wawire S, Muindi K, Gottschalk L, Kabiru CW. Status Report on the Sexual and Reproductive Health of Adolescents Living in Urban Slums in Kenya. 2013;(September).
 44. ADEDIMEJI AA, Mutimura E, Sinayobye A, Mardge H. Sexual behavior and risk practices of HIV positive and HIV negative Rwandan women. 2016;19(7):1366–78.
 45. Bachanas P, Medley A, Pals S, Kidder D, Antelman G, Benech I, et al. Disclosure, Knowledge of Partner Status, and Condom Use Among HIV-Positive Patients Attending Clinical Care in Tanzania, Kenya, and Namibia. *AIDS Patient Care STDS* [Internet]. 2013;27(7):425–35. Available from: <http://online.liebertpub.com/doi/abs/10.1089/apc.2012.0388>
 46. Lifson AR, Workneh S, Shenie T, Ayana DA, Melaku Z, Bezabih L, et al. Prevalence and factors associated with use of khat: a survey of patients entering HIV treatment programs in Ethiopia. *Addict Sci Clin Pract*. 2017;12(1):3.
 47. Tadesse G, Yakob B. Risky sexual behaviors among female youth in Tiss Abay, a semi-urban area of the Amhara Region, Ethiopia. *PLoS One*. 2015;10(3):1–16.

48. Tilahun M, Ayele G. Factors associated with age at first sexual initiation among youths in Gamo Gofa , South West Ethiopia : a cross sectional study. BMC Public Health [Internet]. 2013;13(1):1. Available from: BMC Public Health
49. Santos-Hövenner C, Zimmermann R, Kücherer C, Bätzing-Feigenbaum J, Wildner S, Hamouda O, et al. Conversation about Serostatus decreases risk of acquiring HIV: Results from a case control study comparing MSM with recent HIV infection and HIV negative controls. BMC Public Health. 2014;14(1):1–10.
50. Cook SH, Valera P, Wilson PA. HIV status disclosure , depressive symptoms , and sexual risk behavior among HIV-positive young men who have sex with men. J Behav Med [Internet]. 2015;507–17. Available from: <http://dx.doi.org/10.1007/s10865-015-9624-7>
51. Kassaye KD, Lingerh W, Dejene Y. Determinants and outcomes of disclosing HIV-sero positive status to sexual partners among women in Mettu and Gore towns , Illubabor Zone southwest Ethiopia. Ethiop J Heal Dev [Internet]. 2005 [cited 2018 Jan 30];19(2):126–31. Available from: <https://www.ajol.info/index.php/ejhd/article/viewFile/9981/2241>
52. EFDR (FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA). Ethiopia Demographic and Health Survey 2016 Central Statistical Agency Addis Ababa, Ethiopia The DHS Program ICF Rockville, Maryland, USA July 2017. 2016.

Annexes

Annex one: Information sheet and Consent Form

Information sheet

The questionnaire prepared to study risky sexual behavior and sero-status disclosure among youths living with HIV attending ART clinics in Benchi Maji Zone, Southwest, Ethiopia. April, 2018.

Good morning/afternoon

I amworking as data collector in this study that assess risky sexual behavior and sero-status disclosure among youths living with HIV attending ART clinics in Benchi Maji Zone,..... (Name of health institution)

Dear respondents here are lists of questions with different sections, which are designed for research work to be conducted in partial fulfillment of master of public health in reproductive health by **Medhanit Worku** from Jimma University, departments of Population and family health.

I am going to read the questionnaire then you will be choose from the given alternatives and your responses are completely confidential. In order to protect confidentiality, your names or medical record number will not be written on the questionnaires. Identification of an informant will be only possible through numerical codes.

Participation in the study will not impose any risk on you, and you may end to participate in the study any time you want. However, your honest response to these questions will help us to better understand the status of risky sexual behavior and its association with sero-status disclosure among youth living with HIV.

I would greatly appreciate your help in responding to these questions. It will take about 25 to 35 minutes and there is no benefit that you get from your participation in this study. However, your honest and genuine response to each question will play a major role in the attainment of the objective of the study.

The results of the study will hopefully serve as an important input to intervention programs that aim at improving health and wellbeing of youths living with HIV. Therefore, I thank you in advance and greatly appreciate your helping.

In case, you need to contact: Address of the Investigator... Name: Medhanit Worku ...Tel: 0912375614

Consent form

I the selected participant heard the information in the study information sheet and understood the purpose, benefit and what is required from me, if I take part in the study. I understood that all information regarding all answers given by me is secret and confidential. I also understand that I can decide whether to take part in the study or even withdraw from the study at any time. Therefore, I am willing to participate in the study or my child to participate in the study.

Yes Signature/finger print of participant-----Date-----

Proceed with the interview

No Terminate the interview

Data collector Name-----sign----- Date-----

Thank you

Direction: This section requires questions about your general information, it helps me to select eligible participant and category in this study, please tell me that best describes you.

SN	Questions and Filters	Response & Coding Categories	Skip
01	How old are you?	(Years)=_____	If the age is <15 years and>24years, do not proceed.
02	If age is 15-24 years, What is your HIV sero status?	<input type="checkbox"/> 1 = Positive <input type="checkbox"/> 2 = Negative → <input type="checkbox"/> 2 = Unknown →	Do not proceed. Do not proceed
03	When did you get tested (diagnosed) for HIV (ask and/or observe)?	Day/month/year_____	If <6 month, do not Proceed.
04	Did you practice at least one occasion of sexual activity with the sexual partner(s) within the last six month after 6 months of HIV test?	<input type="checkbox"/> 1 = Yes <input type="checkbox"/> 2 = No →	Do not proceed.
05	Did at least one of your current sexual partner, family friend or any other persons are know your HIV Positive status?	<input type="checkbox"/> 1 = Yes <input type="checkbox"/> 2 = No → <input type="checkbox"/> 3=Unknown →	Code with A, then send to data collection room.
06	Did you disclose your HIV positive status to at least one of your current sexual partner family friend or any other persons are by yourself?	<input type="checkbox"/> 1 = Yes → <input type="checkbox"/> 2=No	code with B, then send to data collection room

Annex two: English version Questionnaire

Part One: Socio Demographic Factors			
Direction 1: Now you are expected to choose and give your answers in the blank spaces about your socio-demographic characteristics.			
S/No.	Questions	Choice	Skip
101	Sex	1. Male 2. Female	
102	Age	_____years	
103	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5.others(specify)_____	
104	Ethnicity	1. Amhara 2. Benche 3. Oromo 4. keffa 5.Other(specify)_____	
105	Residences	1. Mizan-Aman 2. Out of Mizan-Aman	
106	Educational status	1. No formal education 2. Primary 3. Secondary 4. College and above	
107	Occupational status	1. gev't employment 2. privet employment 3. student 4. no job	
108	Marital status	1. Never married 2. Married 3. In relationship 4. other (specify)_____	
109	With whom are you currently living in the same household as you?	1. Either with Father or Mother 2. Relatives 3. Friends 4. With my wife or husband 5. Alone 6. other (specify)_____	
Part two; Psyc-social and Health Factor Questions			
Direction 2: This section requires questions about your current health status, support and interaction with others. Please choose only one that best describes your health status.			
201	How long have you known that you are infected with HIV/AIDS?	1. < 2years 2. 2-3 years 3. >3 years	
202	Duration since starting ART?	1. < 2years 2. 2-3 years	

		3. >3 years	
203	Did you have a history of hospitalization in previous 12 months related to a disease/ infection?	1. yes 0. no	
204	Did you take ART correctly and consistently or with schedule in the previous 12 months?	1. yes 0. no	
205	Did you change ART regimen in the previous 12 months?	1. yes 0. no	
206	Did you have had sexual information from other?	1. yes 0. no	
207	Which of the following individual provide you sexual?	1. families 2. relatives/friends 3. spouses 4. health care providers 5. other specify _____	
208	Enacted type of stigma in their life 1. Because you are HIV positive someone refused to eat with you. 2. Because you are HIV positive someone refused to hug you. 3. Because you are HIV positive children kept away from you. 4. Because you are HIV positive you had to move from your place. 5. Because you are HIV positive you were beaten up 6. Because you are HIV positive you are/were verbally threatened. 7. Because you are HIV positive you lost a friend. 8. Because you are HIV positive, avoided/ignored by a family member	1. yes 0. no 1. yes 0. no	
209	Perceived stigma in the last 12 months 1. Because you are HIV positive you felt others were uncomfortable. 2. Because you are HIV positive you felt people avoided you. 3. Because you are HIV positive you feared family rejection. 4. Because you are HIV positive you feared losing friends. 5. Because you are HIV positive you felt blamed by others. 6. Because you are HIV positive you thought HIV was punishment. 7. Because you are HIV positive you felt	1. yes 0. no 1. yes 0. no	

	ashamed.		
Part three; HIV-sero status disclosure Questions			
Direction 3: This section requires questions about your HIV-sero status disclosure, Please choose only one that best describes your disclosure status.			
301	Did anyone around you know your sero-status?	1. yes 0. no	If no, => Q401 (Part four)
302	Which of the following individuals know your status? (Multiple response is possible)	1. Family 2. Friends/peers 3. neighbor hoods 4. Boy/girl friend 5. Club members 6. Individual at school/working area 7. Other (specify_____)	
303	How did others know your status?	1. I told them directly 2. indirectly through observation/from other 3. I do not know	
304	What did you feels, if other knows your sero status?	1. Pleasured 2. Regretted, 3. Support 4. Stigma experiences	
305	Do you find it difficult or easy to talk with your families/partners/friends/health care providers about things that are important to you?	1. Very easy 2. Easy 3. Average 4. Difficult 5. Very difficult 6. Do not	
Part four; HIV related Knowledge Questions			
Direction 4: This section requires questions about your HIV related Knowledge; I am now going to read you some statements about HIV/AIDS. Please tell me whether you think the statement is true, or false, or whether you don't know.			
401	Can AIDS be cured?	1. True 2. False 3. I don't know	
402	Can a person reduce the risk of HIV by having fewer sexual partners?	1. True 2. False 3. I don't know	
403	Can a healthy-looking person have HIV?	1. True 2. False 3. I don't know	
404	Can HIV be transmitted from a mother to her unborn baby?	1. True 2. False 3. I don't know	
405	Can the risk of HIV transmission be reduced by having sex with only one	1. True 2. False	

	uninfected partner who has no other partners?	3. I don't know	
406	Can a person get HIV by sharing food with someone who is infected?	1. True 2. False 3. I don't know	
407	Can a person reduce the risk of getting HIV by using a condom every time he/she has sex?	1. True 2. False 3. I don't know	
Part five; alcohol and substance use			
Direction 5: This section requires questions about your alcohol and substance use; Please choose only one that best describes your use of any substance.			
501	Have you ever smoke cigarettes in your life?	1.Never 2.Always (daily) 3.Often (3-4 times/week) 4.Occasionally (1-3X/month) 5.Rarely (on holydays)	
502	Have you ever chew chat in the life?	1.Never 2.Always (daily) 3.Often (3-4 times/week) 4.Occasionally (1-3X/month) 5.Rarely (on holydays)	
503	Have you drink alcohol (Tella/Tegi/ Areke/ Beer/ Wine, etc...) in the life?	1.Never 2.Always (daily) 3.Often (3-4 times/week) 4.Occasionally (1-3X/month) 5.Rarely (on holydays)	
504	Have you ever use drugs?	1. Never 2. Always (daily) 3. Often (3-4 times /week) 4. Occasionally 5. Rarely (on holydays)	
505	Have you ever use pornography?	1. Never 2.Always (daily) 3.Often (3-4 times /week) 4.Occasionally 5.Rarely (on holydays)	
Part Six ; Partner and Risky Sexual Behaviour related Questions			
Direction 6: Now I am going to ask you some questions about your sexual experience and your partner, Since the following questions are more personal and secret, please answer them honestly. Choose one in multiple-choice items. Remember your name is not written on the questionnaire			
601	Have you ever had sexual intercourse?	1. Yes 0. No	If No go to Q 604

602	At what age did you first have sexual intercourse?	Age in years _____	
603	How many persons have you had sex with in your lifetime?	_____ in number	
604	Have you had boy/girlfriends currently?	1.Yes 0.No	
605	In the past twelve months, have you had sexual intercourse with anyone?	1.Yes 0.No	If No go to Q 610
606	Think of the last person you had sex with in the last twelve months. What did the relationship you had?	1. Boyfriend/girlfriend (steady partner/Fiancé(e) 2. Spouse 3. Casual partner/Sex worker/ Employer 4. Other _____	
607	Think of the last person you had sex with in the last twelve months. How long did the relationship last?	Day/month/year _____	
608	With how many persons have you had sexual intercourse in the past twelve months?	1. one 2. two 3. three 4.> four	
609	If you have had sexual intercourse last twelve months; Did you/ your partner use condom?	1. Never 2.Always 3.Often	
610	Did you discuss or communicate about your safe sex with your partner	1. yes 0. no	
611	Did you discuss or communicate about your sero-status with your partner	1. yes 0. no	
612	What is/are the HIV sero -status of the person/s with whom you had sex in the last three months?	1. Negative 2. Positive 3. Unknown	

ጅም ዩንቨርሲቲ

የጤና ኢንስቲትዩት

ስነ-ሕዝብና የቤተሰብ ጤና ትምህርት ክፍል

የማጣርያ መጠይቅ

ተ/ቁ	ማጣርያ ጥያቄዎች	ምላሾች	ወደ
01	ዕድሜዎ ስንት ነው?	(ዓመት)= _____	ዕድሜዎ ከ 15 በታች እና 24 በላይ ከሆነ እዚህ ያቁሙ
02	ለኤች.አይ.ቪ መቼ ነው የተመረመሩ? (በመጠየቅ/መዝገብ በማየት)	ቀን/ወር/ዓመት _____	ከ 6 ወር ያነሰ ከሆነ፣ እዚህ ያቁሙ
03	በባለፉት ስድስት ወራት ውስጥ፣ ከ 6 ወር የኤች.አይ.ቪ ምርመራ በኋላ ቢያንስ አንድ ጊዜ የግብረ ስጋ ግንኙነት ፈፀመው ያቃሉ?	<input type="checkbox"/> 1 = አዎ <input type="checkbox"/> 2 = የለም	_____ → እዚህ ያቁሙ
04	ከተቃራኒ ፆታ ጓደኛዎ/ኛችዎ፣ ከቤተሰብ አባላት፣ ከጎረቤት ወይም በዙሪያህ ካሉ ማንኛውም ሰው ውስጥ ቢያንስ አንዱ/ዷ የኤች.አይ.ቪ ውጤትዎን ያቃል/ታቃለች?	<input type="checkbox"/> 1 = አዎ <input type="checkbox"/> 2 = አያውቁም <input type="checkbox"/> 3 = አይታወቅም	_____ → "A" ብለን ሰይመን ወደ ዋና መረጃ መሰብሰብያ ክፍል እንላካቸው _____ →
05	ከተቃራኒ ፆታ ጓደኛዎ/ኛችዎ፣ ከቤተሰብ አባላት፣ ከጎረቤት ወይም በዙሪያህ ካሉ ማንኛውም ሰው ውስጥ ቢያንስ አንዱ/ዷ የኤች.አይ.ቪ ውጤትዎን እራስዎ ገልጸዋል/ችዋል?	<input type="checkbox"/> 1 = አዎ <input type="checkbox"/> 2 = አላውቅም	_____ → "B" ብለን ሰይመን ወደ ዋና መረጃ መሰብሰብያ ክፍል እንላካቸው

የጥያቄ ወረቀቱ መለያ ቁጥር _____

የጥናቱ መግለጫ

በደ/በ/በ/ሕ/ክልል፣ በቤንች ማጂ ዞን ከኤች.አይ.ቪ ጋር የሚኖሩ ወጣቶች የኤች.አይ.ቪ ምርመራ ወጤትን መግለፅና ከአስጊ ወሲባዊ አድራጎት ጋር ያለውን ግንኙነት ለማጥናት የተዘጋጀ መጠይቅ ከመጋቢት_ሚያዚያ 2010 ዓ.ም.።

ጤና ይስጥልኝ!

ስሜ ----- ይባላል በቤንች ማጂ ዞን ከኤች.አይ.ቪ ጋር አብረው የሚኖሩ ወጣቶች የኤች.አይ.ቪ ምርመራ ወጤትን መግለፅና ከአስጊ ወሲባዊ አድራጎት ጋር ያለውን ግንኙነት ጥናት ውስጥ በ-----ጤና ማህከል መረጃ ሰብሳቢ ነኝ።

ዉድ ተሳታፊዎችን በዚህ መጠይቅ ውስጥ የተለያዩ ንዑስ ክፍሎች ያሉት ጥያቄዎች የተካተቱ ሲሆን የጥናቱ ዓላማ ከኤች.አይ.ቪ ጋር የሚኖሩ ወጣቶች የሚያደርጉትን አስጊ ወሲባዊ አድራጎት ከኤች.አይ.ቪ ምርመራ ወጤትን ከመግለፅ ጋር ያለውን ግንኙነት ለማጥናት በወ/ሪት መድሀኒት ወርቁ በጅማ ዩንቨርሲቲ ስነ-ሕዝብና የቤተሰብ ጤና ት/ት ክፍል የድህረ ምረቃ ኘሮግራም ማሟያ የሚሆን ነው። በመጠይቁ ውስጥ በጣም ሚስጢራዊ እና ግላዊ የሆኑ ጉዳዮች ተካተዋል። እርስዎ የሚሰጡት ማንኛውም መረጃ በሚሰጡበት የሚጠበቅ በመሆኑ በማንኛውም መንገድ ለሶስተኛ አካል አሳልፎ አይሰጥም ወይም አይጋለጥም። ስማችሁን እና የመለያ ቁጥራችሁን በመጠይቁ ላይ አይጻፍም፤ ተሳታፊዎች የሚለየው በሚሰጡት የቁጥር መለያዎች ብቻ ይሆናል።

በዚህ ጥናት ውስጥ መሳተፍ ምንም አይነት አደጋን በተሳታፊው ላይ አያስከትልም። ተሳትፎአችሁ በፈቃደኝነት ላይ የተመሠረተ ስለሆነ በየትኛውም ሰዓት ጥናቱን አቋርጠው መወጣት ይችላሉ። ነገር ግን በዕውነት ላይ የተመሠረተና ተገቢ የሆነ መረጃ መስጠትዎ ለጥናቱ ስኬት ከሚያበረክተው አስተዋጽኦ ባሻገር በወጣቶች አስጊ ወሲባዊ አድራጎት እና የምርመራ ወጤትን ከመግለፅ ጋር ያለውን ግንኙነት ለመረዳት እገዛ ያደርጋል።

ጥያቄውን ለመሙላት ከሰላሳ ደቂቃ ያላነሰ ሊወስድ ይችላል። ያላችሁን ተሞክሮ ብታካፍሉን ከኤች.አይ.ቪ ጋር የሚኖሩ የወጣቶች እና ታዳጊዎች ችግር ለመፍታት እጅግ በጣም ጠቃሚ ነው። የጥናቱ ወጤት ከኤች.አይ.ቪ ጋር የሚኖሩ ወጣቶችን እና ታዳጊዎችን የሥነ-ተዋልዶ ጤና ችግሮች ለመፍታት የሚችሉ እቅዶች እንዲታቀዱና እንዲተገበሩ ይረዳል። ስለዚህ በጥናቱ ላይ በመሳተፍዎ ለሚጠየቁት በመጨረሻም ለሚሰጡት ለየትኛውም አይነት ምላሽ አመሰግናለሁ።

የጥናት አድራጊዋ አድራሻ ስም:- መድሀኒት ወርቁ ስልክ:- 0912 375 614 e-mail:- medhanitworku00@gmail.com

ፊቃድ መጠየቂያ ቅጽ

እኔ በዘህ ጥናት ተሳታፊ የሆንኩ ከላይ የተገለጹትን በሙሉ ሰምቼአለሁ፤ አላማውንና ጥቅሙንም ተረድቼአለሁ፤ ሚስጥር እንደሚጠበቅና ለሶስተኛ አካል እንደሚይተላለፍና የመሳተፍና ያለመሳተፍ ወሳኔ የእኔ እንደሆነ ተገንዝቤአለሁ። ስለዚህ በጥናቱ ለመሳተፍ :

ፊቃደኛ ነኝ፣ አዎ እሳተፋለሁ። ፊርማ.....ቀን...../...../..... አመሰግነው የሚከተለትን ጥያቄዎች ይጠይቋቸው።

ፊቃደኛ አይደለሁም፣ አልሳተፍ ም። ፊርማ.....ቀን.....አመሰግነው ያሰናብቷቸው።

መረጃ ሰብሳቢ ስም----- ፊርማ----- ቀን...../...../.....

የጥያቄ ወረቀቱ መለያ ቁጥር-----

የተቆጣጣሪ ስም -----ፊርማ----- ቀን...../...../.....

አመሰግናለሁ!

Annex three: Amharic version questioner

ዋና መጠይቅ			
ክፍል 1: አጠቃላይ መረጃ መጠይቅ			
መመሪያ 1: ከዚህ በታች ላሉት ጥያቄዎች አንዱን ምርጫ ምረጥ ወይም በተሰጠህ ባዶ ቦታ የሚሞላውን ግለጽ::			
የጥያቄ ወረቀቱ መለያ ቁጥር _____			
ተ/ቁ	ጥያቄዎች	አማራጮች	ወደ
101	ፆታ	1. ወንድ 2. ሴት	
102	ዕድሜ	_____ በአመት	
103	አይማኖት	1. አርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ጥቀስ/ሺ_____	
104	መኖሪያ ስፍራ	1. ሚዛን-አማን 2. ከሚዛን-አማን ወጪ	
105	ብሄረሰብ/ሺ/ህ	1. አማራ 2. ቤንች 3. ከፋ 4. ሌላ ጥቀስ/ሺ_____	
106	የትምህርት ደረጃ	1. ያልተማረ 2. አንደኛ ደረጃ 3. ሁለተኛ ደረጃ 4. ኮሌጅና ከዛ በላይ	
107	የስራ ሁኔታ	1. መንግስት ስራተኛ 2. የግል 3. ተማሪ 4. ስራ የሌለው	
108	የጋብቻ ሁኔታ	1. ያላገባ 2. ያገባ 3. በአጭኝነት 4. ሌላ ጥቀስ/ሺ_____	
109	አሁን ከማን ጋር ነው የምትኖረው/ረዎ?	1. ከቤተሰብ ጋር 2. ከዘመድ ጋር 3. ከተመሳሳይ ጾታ ጓደኛዬ ጋር 4. ከባለቤቴ ጋር 5. ለብቻዬ 4. ሌላ ጥቀስ/ሺ_____	
ክፍል 2: የጤና ሁኔታና መገለልን የተመለከቱ ጥያቄዎች			
መመሪያ 2: በዚህ ክፍል ውስጥ አሁን ያሉበትን የጤና ሁኔታንና መገለልን የተመለከቱ ጥያቄዎች እጠይቃለሁ፤ እባኩት የአርሶን የጤና ሁኔታንና መገለልን የሚገልጽልዎትን አንዱን ይምረጡ ::			
201	ኤች.አይ.ቪ/ኤድስ በደም ውስጥ እንዳለ መቼ አወቁ ?	1.2 አመት በታች 2. ከ2-3 አመት 3. ከ 3 አመት በፊት	
202	ኤ.አር.ቲ መድሀኒት ከጀመሩ ምን ያህል ጊዜ ሆኖት?	1. ከ2 አመት በታች 2. ከ2-3 አመት 3. ከ 3 አመት በላይ	
203	ኤች.አይ.ቪ/ኤድስ ህመም ጋር ተያይዞ ባለፈው 12 ወራት ሆስፒታል ገብተው ተኝተው ታከመው ያዉቃሉ?	1. አዎ 0. የለም	
204	ባለፈው 12 ወራት ውስጥ ኤ.አር.ቲ መድሀኒቱን በትክክልና በአግባቡ በታዘዘው ፕሮግራም መሰረት ይወስዱ ነበር?	1. አዎ 0. የለም	
205	ባለፈው 12 ወራት ውስጥ ኤ.አር.ቲ መድሀኒት ይወስዱ ከነበረው የአይነት ለውጥ አድርገው ነበር?	1. አዎ 0. የለም	
206	በህይወት ዘመን ላይ በተግባር የታዩ የመገለል(መድልዎ) አይነቶች 1. ቫይረሱ በደም ስላለ ከአሶ ጋር አብሮ አልመገብም ያለ ሰው አለ::	1. አዎ 0. የለም 1. አዎ 0. የለም	

	2. ቫይረሱ በደም ስላለ እርስዎን አቅፎ ሰላምታ ለመስጠት የተወሰደው አለ። 3. ቫይረሱ በደም ስላለ ልጆችን ከእርስዎ ያራቀ አለ። 4. ቫይረሱ በደም ስላለ ከአከባቢዎ መሸሸ የነበረብዎት ጊዜ ነበር። 5. ቫይረሱ በደም ስላለ የተመቱበት ጊዜ አለ። 6. ቫይረሱ በደም ስላለ በቃላት ማስፈራራት (ዛቻ) ደርሶብዎትዎታል። 7. ቫይረሱ በደም ስላለ ጓደኛ አጥተዋል። 8. ቫይረሱ በደም ስላለ ከቤተሰብ አባላት እርሶን የማያናግር (የዘጋዎት) አለ።	1. አዎ 1. አዎ 1. አዎ 1. አዎ 1. አዎ 1. አዎ	0. የለም 0. የለም 0. የለም 0. የለም 0. የለም 0. የለም
207	ባልፉት 12 ወራት ውስጥ የጋጠሙ የመገለል ስሜት 1. ቫይረሱ በደም ስላለ ስዎች የማይመቻቸው መስሎዎት ያውቃል። 2. ቫይረሱ በደም ስላለ በሰዎች የመገለል ስሜት ተሰምቶዎት ያውቃል። 3. ቫይረሱ በደም ስላለ በቤተሰብ መገፋት (መወገዝን) ፈርተው ያውቃል። 4. ቫይረሱ በደም ስላለ ጓደኛ አጣለው ብለው ሰግተው ያውቃል። 5. ቫይረሱ በደም ስላለ በሌሎች የሚወቀሱ መስሎ ተሰምቶዎት የውቃል። 6. ቫይረሱ በደም ስላለ የHIV ህመምተኛ መሆን ቅጣት ነው ብለው አስበው ያውቃል። 7. ቫይረሱ በደም ስላለ አፍረት ተሰምቶዎት (ተሸማቀው) ያውቃል።	1. አዎ 1. አዎ 1. አዎ 1. አዎ 1. አዎ 1. አዎ 1. አዎ	0. የለም 0. የለም 0. የለም 0. የለም 0. የለም 0. የለም 0. የለም

ክፍል 3: ኤች.አይ.ቪ ምርመራ ውጤትን ለልሎች መግለፅ

መመሪያ 3: በዚህ ክፍል ውስጥ ኤች.አይ.ቪ ምርመራ ውጤትን ለልሎች መግለፅን የሚዳስሱ ጥያቄዎች እጠይቁታለሁ፤ እባኩት የእርሶን የሚገልጹልዎትን አንዱን ይምረጡ ።

301	አብረውህ ከሚኖሩ ወይም በዙሪያህ ካሉ ስለ አንተ/አንቺ ከቫይረስ ጋር አብሮ መኖር የሚያወቅ አለ?	1. አዎ 0. የለም	የለም ከሆነ ወደ ጥያቄ 401 (ክፍል 4)
302	ከሚከተሉት ግለሰቦች መካከል የትኛቹ ያውቃሉ? (ብዙ ምላሽ መስጠት ይቻላል)	1.ቤተሰብ 2.ገደኞች/ የእድሜ እኩቦች 3.ጎረቤቶች 4. የሴት/የወንድ የፍቅር ገደኛ 5. ልጆቹ 6. የክለብ አባላት 7.ስራ ቦታ/ትምህርት ቤት ያሉ ሰዎች	
303	ሌሎች እርስዎ ከቫይረስ ጋር አብሮ መኖር እንዴት ሊያወቁ ቻሉ?	1.እኔ በቀጥታ ነግሬአቸዋለሁ 2. በመመልከትና አንድ አንድ ቀጥተኛ ባልሆኑ መንገዶች 3. አላወቅም	
304	ሌሎች እርስዎ ከቫይረስ ጋር አብሮ መኖር ሲያወቁ ምን ተሰማዎት?	1. ደስታ 2. ፀፀት 3. እርዳታ 4. የመገለል ስሜት	
305	ለሌሎች የእርስዎ ጉዳይ ማወራት ቀላል ሆኖ አገኙት ምን ተሰማዎት?	1. በጠም ቀላል 2. ቀላል 3. መካከል 4. በጠም ከባድ 5. ከባድ 6. አላወቁም	

ክፍል 4 :የኤች.አይ.ቪ እወቀት መጠይቅ

መመሪያ 3: በዚህ ክፍል ውስጥ የእርሶን የኤች.አይ.ቪ እወቀት ለመለካት የሚረዱ መጠይቆች ተካተዋል፤ እባኩት የእርሶን እወቀት መሰረት ትክክል የሆነውን እውነት፡ ትክክል ያልሆነውን ሐሰት ወይም አላወቁም በማለት አንዱን ይምረጡ ።

401	ኤድስ የሚደኑ በሽታ ነዉ?	1.እውነት 2.ሐሰት 3.አላወቁም	
402	ጥቂት የግብረ-ስጋ ግጥሞችን ጓደኛ እንዲኖር በማድረግ ለኤች.አይ.ቪ የመጋለጥ እድልን መቀነስ የቻላል	1.እውነት 2.ሐሰት	

		3.አላወኩም	
403	ጤናማ የሚመስል ሰው ኤች.አይ.ቪ ሊኖርበት ይችላል	1.እውነት 2.ሐሰት 3.አላወኩም	
404	ኤች.አይ.ቪ ከእናት ወደ ልጅ ሊተላለፍ ይችላል	1.እውነት 2.ሐሰት 3.አላወኩም	
405	ከአንድ ተመርምሮ አራሱን ካወቀ ሰው ጋር ብቻ የግብረ-ሰጋ ግኑኝነት እንዲኖር በማድረግ ለኤች.አይ.ቪ የመጋለጥ እድልን መቀነስ የቻላል	1.እውነት 2.ሐሰት 3.አላወኩም	
406	ኤች.አይ.ቪ ካለበት ሰው ጋር ምግብ መመገብ ለኤች.አይ.ቪ ያጋልጣል	1.እውነት 2.ሐሰት 3.አላወኩም	
407	ሁልጊዜ በግብረ-ሰጋ ግኑኝነት ወቅት ኮንዶምን በማድረግ ለኤች.አይ.ቪ የመጋለጥ እድልን መቀነስ የቻላል	1.እውነት 2.ሐሰት 3.አላወኩም	
ክፍል 5: አልኮልና አደገዛዥ እጽ(ጫት፣ሽሻ፣ ሲጋራ አጠቃቀምን በተመለከተ			
መመሪያ 5:- ከዚህ በታች ያሉት ጥያቄዎች ስለ አደገዛዥ እጽ(ጫት፣ሽሻ እና አልኮል) መጠቀምን የሚጠይቁ ናቸው። ማንነትዎ እንዳይታወቅ ስምዎ በጥያቄው ወረቀት ላይ አይመዘገብም። ስለዚህ በግልጽ እንድትመልስልኝ/ሺልኝ በትህትና አጠይቃለሁ!			
501	ላለፉት ጊዜያት ሲጋራ አጨሰህ/ሽ ታውቃለህ/ቁአለሽ?	1. በፍፁም 2.በየቀኑ(ሁልጊዜ) 3. ብዙጊዜ(በሳምንትከ3-4 ጊዜ) 4. አልፎአልፎ(በወርከ1-3ጊዜ) 5. በበአላትቀን-ብቻወይምባጋጣሚ	
502	ላለፉት ጊዜያት ጫት ቅመህ/ሽ ታውቃለህ/ቁአለሽ?	1. በፍፁም 2.በየቀኑ(ሁልጊዜ) 3. ብዙጊዜ(በሳምንትከ3-4 ጊዜ) 4. አልፎአልፎ(በወርከ1-3ጊዜ) 5. በበአላትቀን-ብቻወይምባጋጣሚ	
503	ላለፉት ጊዜያት የአልኮል አይነቶችን (ጠላ/ጠጅ/አረቄ/ ቢራ/ ወይን ወዘተ) ጠጥተህ/ሽታውቃለህ/ቁአለሽ?	1. በፍፁም 2.በየቀኑ(ሁልጊዜ) 3. ብዙጊዜ(በሳምንትከ3-4 ጊዜ) 4. አልፎአልፎ(በወርከ1-3ጊዜ) 5. በበአላትቀን-ብቻወይምባጋጣሚ	
504	ላለፉት ጊዜያት አደገኛ እፅ ወይም መጠጥ ተጠቅመ/ሽታውቃለህ/ቁአለሽ?	1. በፍፁም 2.በየቀኑ(ሁልጊዜ) 3. ብዙጊዜ(በሳምንትከ3-4 ጊዜ) 4. አልፎአልፎ(በወርከ1-3ጊዜ) 5. በበአላትቀን-ብቻወይምባጋጣሚ	
505	ከፍተኛ የወሲባዊ ይዘት ያላቸው የመገናኛ ውጤቶች ተጠቅመ ታውቃለህ/ቁአለሽ	1. በፍፁም 2.በየቀኑ(ሁልጊዜ) 3. ብዙጊዜ(በሳምንትከ3-4 ጊዜ) 4. አልፎአልፎ(በወርከ1-3ጊዜ) 5. በበአላትቀን-ብቻወይምባጋጣሚ	
ክፍል 6: ጾታዊ ጓደኝነትና ለአደጋ የሚያጋልጡ ጾታዊ ግንኙነቶች የተመለከቱ መጠይቆች			
መመሪያ 6: በዚህ ክፍል ውስጥ የእርሶን የጾታዊ ጓደኝነትና ለአደጋ የሚያጋልጡ ጾታዊ ግንኙነቶችን የተመለከቱ መጠይቆች ልጠይቁት ነው። እነዚህ ጥያቄዎች በጣም ግላዊና ምስጢራዊ እንደመሆናቸው መጠን የእርሶን ማንነት የሚገልፅ ስም በጥያቄው ወረቀት ላይ አይጻፍም። ስለዚህ በግልጽ እንድትመልስልኝ/ሺልኝ በትህትና አጠይቃለሁ።፤			
601	የግብረ ስጋ ግንኙነት ፈጽመው ያውቃሉ?	1. አዎ 0. የለም	መልሱ የለም ከሆነ ወደ ጥያቄ 604

602	ለመጀመሪያ ጊዜ የብረት ስጋ ግንኙነት ሲፈጸም እድሜዎ ስንት ነው?	እድሜ በዓመት _____	
603	እስከ አሁን ስንት የወሲብ /ጠቅላላ የጾታ ጓደኞች አለሽ/ህ ?	_____ በቁጥር	
604	የፍቅር ጉደኛ አለህ/ሽ	1. አዎ 0. የለም	
605	ባለፈው 12 ወራት ውስጥ የብረት ስጋ ግንኙነት ፈጸመዋል?	1. አዎ 0. የለም	መልሱ የለም ከሆነ ወደ ጥያቄ 610
606	ባለፈው 12 ወራት ውስጥ ለመጨረሻ ጊዜ የብረት ስጋ ግንኙነት የፈጸሙትን ሰው ያስታውሱና ግንኙነታችሁ ምን ይመስላል?	1. መደበኛ የሴት/የወንድ ጓደኛ 2. የትዳር አጋር 3. መደበኛ ያልሆነ ግንኙነት 4. ተቀጣሪ/ቀጠጣሪ 5. እጮኛ 6. ሴተኛ አዳሪ 7. ሌላ ጥቅስ _____	
607	ባለፈው 12 ወራት ውስጥ ለመጨረሻ ጊዜ የብረት ስጋ ግንኙነት የፈጸሙትን ሰው ያስታውሱና በግንኙነት ምን ያህል ጊዜ ቆዩ?	-----ቀን/ወር/ዓመት	
608	ባለፈው 12 ወራት ውስጥ ከምን ያህል ግለሰቦች ጋር የብረት ስጋ ግንኙነት ፈጸመዋል?	1. አንድ 2. ሁለት 3. ሶስት 4. ከ አራት በላይ	
609	ባለፈው 12 ወራት ውስጥ አንተ ወይም የጾታ/ትዳር ጓደኛዎ በብረት ስጋ ግንኙነት ጊዜ ኮንዶምን ይጠቀማሉ?	1. በፍፁም 2. ሁልጊዜ 3. አልፎአልፎ	
610	ጥንቃቄ ስለተሞላበት የብረት ስጋ ግንኙነት ተነጋግራችሁ ታውቃላችሁ?	1. አዎ 0. የለም	
611	ስለኤች.አይ.ቪ ውጤትዎ ተነጋግራችሁ ታውቃላችሁ?	1. አዎ 0. የለም	
612	ባለፈው 12 ወራት ውስጥ የብረት ስጋ ግንኙነት የፈጸሙት ሰው ኤች.አይ.ቪ ምርመራ ውጤቱ ምንድነው?	1 ፖዘቲቭ 2. ነገቲቭ 3. አላወቁም	

አመሰግናለሁ!