

Prevalence of HIV/AIDS and Preventive Practices among Street Children in Jimma Town, southwest Ethiopia

A research report submitted to Department of Epidemiology, Faculty of Public Health, Institute of Health, and Jimma University; in partial fulfillment of the requirements for the degree of Masters of Public Health in General Public Health

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Contents

A	cknowl	edgments	2
1	. INT	RODUCTION	6
	1.1	Background	6
	1.2. Sta	atement of the Problem	8
2	. Literat	ure review	9
	2.1	Conceptual Frame Work	12
	2.3 Sig	nificance of the study	12
3	. Object	ives	13
4	. Metho	ds and Materials	13
	4.1. Stu	udy area and period	13
	4.2 Stu	dy design	13
	4.3. Po	pulation	13
	4.3.1	Source Population	13
	4.3.2	2 Study Population	14
	4.3.3	3Study Unit:	14
	4.4 Eli	gibility Criteria	14
	4.4.1	I Inclusion Criteria	14
	4.4.2	2 Exclusion criteria	14
	4.5. Sa	mple size determination and Sampling technique /Sampling procedures	14
	4.5.1	Sample size determination	14
	4.5.2	2 Sampling Technique/ Procedure	14
	4.5.4	4 HIV testing	15
	4.6. Stu	udy variables	16
	4.7. Op	perational definitions	17
	Street on the	Children: A child fulfilling the UNICEF definition of the street children and aged 12-18 street for at least one month.	years who have been
	4.8. Da	ta processing and analysis	17
	4.9. Da	ta quality management	17
	4.10. E	Ethical consideration	
	4.11. D	Dissemination plan	
5	. Results	5	19

5.1 HIV status	.9
5.3 HIV/AIDS risky sexual behaviors2	20
5.3 Alcohol consumption status	1
5.4 HIV Knowledge, Attitudes, and practice	2
5.5Knowledge of street children towards HIV/AIDS prevention2	:3
5.6 Attitude of street children towards HIV/AIDS prevention2	:3
5.7 Practice of street children towards HIV/AIDS prevention2	:3
5.8 Associations of knowledge with attitudes and practices among street children towards HIV/AIDS	prevention
2	.4
6. Discussion2	:4
7. Strengths and Limitation	0
8. Conclusion	0
9. Recommendations	0

List of table

List of figure	
Table 4 The reason why children of the street do not use a condom in Jimma town, May 2019 ($N = 312$)	24
Table 3 HIV Knowledge, Attitude and practice of children of the street in Jimma town, 2019	22
Table 2 Risky sexual behaviors of street children in Jimma town, May 2019 ($N = 312$)	20
Table 1 Socio-demographic characteristics of street children in Jimma Town, May 2019 ($N = 312$)	19



	Fig.2
Figure 2 Diagrammatic illustration of sampling procedures	16
Figure . 4 . Knowledge illustration on the HIV/AIDS prevention by sex	24
Reference 33	
Annou 1. Questionnoire	25

Annex 1: Questionnaire	35
Annex 2. Preliminary assessment format	42
Abbreviations and Acronyms	42

Abstract

Background: The life and health of street children are becoming a global concern. Street children are vulnerable to a variety of health related problems; moreover children are vulnerable to HIV/AIDS and all kinds of health risks. This study assessed the prevalence of HIV and preventive practice among street children in Jimma town, southwest Ethiopia. Age, sex; educational level, socioeconomic status, and risky sexual behavior with being HIV positive and consistent condom use were assessed.

Methods: A community-based cross-sectional study was conducted following preliminary survey 312 of the street a child living in Jimma town, assent and consent taken an assessment of prevalence was estimated HIV and preventive practice voluntary counseling and testing data were collected, descriptive static applied independent sample t-test also applied.

Results: In this study preliminary survey 463 included from that due exclusion criteria 312 were involved in the study. The prevalence of HIV among street children in the age group of 12 to 18 years in Jimma town according to this study was found to be 2.9 % in males, the HIV prevalence was 2.58 %, whereas in females it was 0.32 % respectively, out of the total street children 54.5% of respondents had sexual intercourse in their lifetime among this 80.6 % had more than one lifetime sexual partner. Of the total participant 80% of the respondents had heard about AIDS.

Conclusion: A high prevalence of HIV/AIDS and risky sexual behaviors were observed among street children in Jimma town. Developing special programs to improve the sexual health behavior of these street children is highly recommended.

Keywords: children of the street, HIV, Jimma, Infectious diseases, HIV testing, voluntary counseling and testing, preliminary survey.

1. INTRODUCTION

1.1 Background

HIV was first described in 1981; HIV remains a leading cause of ill-health and mortality. While investments in the HIV response have achieved unprecedented results, globally, in 2014, 36.9 million people were living with HIV, 2.0 million new infections and 1.2 million deaths.8 Seven out of ten people living with HIV are in sub-Saharan Africa, where HIV is a leading cause of death among adults, women of child-bearing age and children. (1)

According to the Joint, United Nations Program on AIDS (UNAIDS) Gap Report 2018, globally; the number is rising as more people are living longer because of antiretroviral therapy. An estimated 0.8% of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between regions and countries. There are 1.8 million children younger than 15 years living with HIV.(2)

In Ethiopia, the first confirmed cases of HIV were detected in 1984.HIV epidemic had probably begun in the late 1970s or early 1980s. The first sero-survey conducted in 1984-85 among military recruits showed a prevalence of 0.07 and the epidemic was localized in urban areas, along the major commercial routes and among certain occupational groups.(2)

Currently, the data sources for HIV prevalence estimations in Ethiopia are ANC sentinel surveillance and national Demographic and Health Surveys (DHS), estimated prevalence and other indicators of HIV/AIDS in the country are synthesized. According to the 2016 Ethiopia Demographic and Health Survey, the national HIV prevalence among the adult population aged 15-49 years was 0.9%. The prevalence greatly varies by gender, age, and residence. By gender, the prevalence among women was 1.2% and among men 0.6%, with more women in urban areas having the highest risk of infection. HIV prevalence among young people was low for both sexes, but young women have a threefold higher HIV prevalence (0.3) than young men (0.1). (2)

The life and health of street children are becoming a global concern. Street children are vulnerable to a variety of problems including physical, psychological, sexual and social isolation. Children who spend time on the street are at risk of increased aggression, hopelessness, drug use, and informal sex work (3) Unfortunately street children, in general, are at greater risk for abnormal sexual and reproductive health Compared to other age groups due to risky sexual behaviors. Homeless and youth are likely to be at even higher risk for several different reasons (4)

The United Nations Children's Fund (UNICEF) has labeled street children as children in difficult circumstances, which represent a minority population that has been under-represented for too long in health research. This is a concern because street children are at risk of carrying a greater disease burden. Their homeless lifestyle makes them more vulnerable to health risks and problems than children who live at home; different research revealed that there are more boys than girls living on the street in their adolescence and who mainly have left home due to poverty and abuse. These children in these countries are vulnerable to poor health due to factors such as homelessness, risky sexual behavior, substance abuse, and violence. Among the health problems identified are growth and nutritional disorders, physical injuries, violence, sexual abuse, communicable diseases including diarrheal diseases, malaria, respiratory diseases, neglected tropical diseases, mental health issues, substance abuse, reproductive health disorders, mortality, sexually transmitted diseases and HIV/AIDS (5)

Experiences of parental neglect, physical and sexual abuse and extreme poverty are common drivers to a life on the street that end in poor health-seeking behavior, vulnerability to physical and sexual abuse, and maladaptive coping strategies, high rate of substance abuse, physically abuse and stigma due to their state of homelessness, Engage in unprotected sex and other high-risk sexual behaviors as a means of survival .All these aspects also increase their risk for HIV infection, especially in the context of a generalized HIV epidemic. A large number of children living on the streets provides a challenge to government, policymakers and non-governmental organizations (6)

Enforcing state policies and laws in all African countries is required to protect street children from neglect, abuse and to increase their access to education. More research on the health risks and health status of street children is still required, particularly in Sub-Saharan Africa, which carries the greatest disease burden and poverty. According to the 2012 acquired immune deficiency syndrome (AIDS) pandemic report, the estimated number of adults living with human immunodeficiency virus/ acquired immune deficiency syndrome (HIV/AIDS) in 2011 was 34 million, with more than two-third (23.5 million) living in sub-Saharan Africa (7)

Studies conducted in a different part of sub-Saharan countries showed that street children are one of the highrisk groups to acquiring sexually transmitted infections including HIV/AIDS. They are prone to sexual abuse, rape, prostitution, sexual bartering and exchange, casual sex and early exposure to both heterosexual and homosexual behaviors (8) The number of children and youth who live on the streets of the world's cities is unknown, existing estimates suggest that tens of millions of children are street-based and that their numbers are rising secondary to global population growth, the HIV epidemic, migration, and increasing urbanization. The vast majority of the world's children, and of the world's street children, live in low- and middle-income countries yet existing research regarding street children and youth have overwhelmingly been conducted in high-income countries(9)

In Ethiopia, due to push factors (poverty, family dysfunction abuse, and school problems) and pull factors (independence, freedom, and drug/alcohol abuse) children are drifted to street life to support themselves or their families in majorities. Over 4 million children are estimated to live under especially difficult circumstances. It is estimated that 600,000 children are taking part in street life and as many as 500,000 children find themselves at an extremely high risk of becoming involved in street life in Ethiopia. The streets of Addis Ababa, the capital city of Ethiopia, are said to be home to a population of between 60,000 and 100,000 street children with the lower estimates originating from the Ministry of Labor and Social Affairs and the higher ones from aid agencies(10)

HIV/AIDS epidemic in Ethiopia is considered a "generalized" epidemic which has affected all demographic, socio-economic, and institutional populations of the society (11)

1.2. Statement of the Problem

Africa: 70% of people living with HIV are in the African Region, where nearly one in every 20 adults is infected (1).study conducted in the Democratic Republic of Congo showed, It is vivid that HIV prevalence depends on knowledge of preventive actions, the attitude towards the disease and people`s sexual behaviors. Knowledge about HIV/AIDS-related issues is associated with delayed onset of sexual relations, consistent use of condoms and reduction in the number of sexual partners(12)

The study conducted in Addis Ababa showed that More than half (64.9%) of the street children did not attend any kind of sexual or reproductive health education program. Lack of information on available services (26.5%) was the biggest barrier for the utilization of local sexual and reproductive health services. Street children who are special high-risk group have not been targeted and hence continue to remain vulnerable and lacking in sexual and reproductive health services and sexual health services are poorly advertised and delivered to them. (13)

The study conducted in Gondar in 2013, A total of 288 (61.7%) respondents had sexual intercourse in their lifetime. Among these 264 (91.7%) had more than one-lifetime sexual partners. Besides, 80.5% of them used condoms inconsistently in the last 12 months. Khat chewing was found to be a predictor of having multiple sexual partners. The rural former residence and longer duration of stay on the street are also identified as predictors of inconsistent condom use (14)

Street children are vulnerable to a wide range of problems or hazards. Accordingly, street children have been asked to unveil the type of abuses they face on the street of Hawassa. Nearly forty-two percent 71(41.7%) of informants experienced both verbal and physical abuse; about 62(36.5%) reported physical abuse and nearly sixteen percent 27(15.9%) states a verbal abuse. The remaining 10(5.9%) were sexually abused. (15)

The circumstances in which street people live and work increases their vulnerability to sexual exploitation and abuse and puts them at a higher risk of sexually transmitted infections and HIV/AIDS (9). However, there is scarce evidence on HIV/AIDS-associated behavioral risk factors, attitude and prevention among the various segments of the population in Ethiopia(16) Children and youth (street children) have unique vulnerability to HIV infection, and as their ability to Comprehend HIV/AIDS issues differs from that of adults, this population demands special Consideration. Persons 15 years and above are considered mature enough to give informed consent for Themselves However children aged 13-15, who are married, pregnant, commercial sex workers, street children, heads of families, or sexually active are regarded as "mature minors" who can consent to HIV testing (17).

2. Literature review

Children who live and work on the streets are of significant global public health concern. As a marginalized population, "street children" are at risk of exploitation, health and development problems, including HIV/AIDS, psychosocial problems, drug use, crime, and prostitution.(3)

Street children early initiation for sexual activity, exploitation, abuse, and sexual violence and female few to mention among the various challenges girls face under such circumstances. These expose them to a greater risk of becoming infected with HIV in most cases further added that the probability of becoming victims of violence, exploitation, trafficking, discrimination and various types of abuses is high among orphans and vulnerable children.(18)

Among the diverse determinants of HIV/AIDS are knowledge of basic facts, attitude towards the disease and people living with it, and sexual behaviors are universal in any population group. HIV prevalence varies by sex and educational status among street dwellers, being significantly higher among females (16)

It is vivid that HIV prevalence depends on knowledge of preventive actions, the attitude towards the disease and people's sexual behaviors. Knowledge about HIV/AIDS-related issues is associated with delayed onset of sexual relations, consistent use of condoms and reduction in the number of sexual partners (14)

High number of street youth had multiple sexual partners and the practice of inconsistent condom use was very high. Khat chewing was found to be significantly associated with having multiple sexual partners. Duration of stay on the street and former residence out of Gondar town were factors significantly associated with inconsistent use of condoms (14)

Rapes, anal sex, unprotected sex and survival sex are common factors that increase the health problem of them. On-street children have no safe sleeping place over the night. Thus, street environments do not offer protection to them from sexual and physical abuse. Lack of safe night shelter places street children at high risk of sexual and physical exploitations and added the advantage of prostitutes for strangers. This study showed that children off-street is less likely to be sexually exploited compared to children on-street as they share night shelter with their families or extended families" (8)

"Some study has identified an association with hazardous alcohol use among street-involved youth who use illicit drugs. However, a large body of evidence has linked intimate partner violence victimization with alcohol consumption among youth. 28, 29 High rates of intimate partner violence have also been documented among adults who inject drugs and partner violence is associated with both drug-related (i.e. syringe sharing) and sexual (i.e. unprotected sex) HIV transmission risk behaviors in this population" (19)

"Study conducted in Addis Ababa showed that Street children live and work in conditions that are not conducive to healthy development. They are exposed to the street subculture such as smoking, drug, alcohol and substance abuse, gambling, engaging in sexual activities, or selling sex for survival. The circumstances in which they live and work increase their vulnerability also to sexual exploitation and abuse and put them at a higher risk of unintended pregnancies, sexually transmitted infections, and HIV/AIDS. The problem is further compounded by the lack of access to sexual and reproductive health information and services. A few studies that exist on the sexual behavior of street children more familiar to high-risk behavior and are sexually active at an early age" (10)

"The prevalence of HIV in the street dwellers was 6.9%. Fifty-nine (16.6%) participants responded that HIV can be transmitted by eating food together. Seventy-three (18%) believed an infected needle cannot transmit HIV, while 51 (12.6%) said HIV can be transmitted by handshaking. One hundred ninety-two (47.5%) responded that antiretroviral therapy will not prolong the life of HIV-infected individuals. However, the prevalence of HIV and intestinal parasitic infection was quite high among street dwellers in Gondar (20)

A study conducted in Gonder town shows that a total of 288 (61.7%) respondents had sexual intercourse in their lifetime. Among these 264 (91.7%) had more than one-lifetime sexual partners. Also, 80.5% of them used condoms inconsistently in the last 12 months. Khat chewing was found to be a predictor of having multiple sexual partners. The rural former residence and longer duration of stay on the street are also identified as predictors of inconsistent condom use. (21)

Data specific to street children and youth in sub-Saharan Africa is scarce, with most STI data assessed by self-report. Sub-Saharan Africa studies of out-of-school youth have demonstrated more risk behaviors and higher rates of STIs and HIV than those in school.13–15 Data specific to street children and youth report engagement in high-risk behaviors including transactional sex and inconsistent condom use, and limited HIV knowledge. Drug use is common. Yet, in this area of high rates of HIV, data regarding STI and HIV prevalence among this at-risk population remain limited (22)

These data are among the first reporting HIV and STI prevalence among SCCY in sub-Saharan Africa. Six percent of participants were HIV infected, higher than national and regional prevalence data reported in similar age groups: 0.8–1.7% among adolescents (ages 13–19 years) Study conducted on Street-connected adolescents in Eldoret, Kenya is engaged in high-risk sexual behaviors and females in particular have a substantial burden of STIs and HIV(22)

Policy Statements encourage Persons 15 years and above are considered mature enough to give informed consent for themselves also HIV testing for children under 15 shall only be done with the knowledge and consent of parents or guardians, and the testing must be done for the benefit of the child. However, children aged 13-15, who are married, pregnant, commercial sex workers, street children, heads of families, or sexually active are regarded as "mature minors" who can consent to HIV testing (17)

A major route of transmission of the HIV infection has been identified as heterosexual intercourse contributing over 90 percent of the epidemic in the country. Sexual behavior of high-risk groups, namely, adolescents, street children, drivers, barmaids, and sex workers have frequently been blamed for the rapid spread of the disease.(23)ART should be initiated for all individuals (children, adolescents and adults) living with HIV immediately after confirming HIV diagnosis, regardless of WHO clinical stage and CD4 cell count.(24)

2.1 Conceptual Frame Work



Figure 1 Conceptual framework adopted from the review of different literature.

2.3 Significance of the study

Academically, the study contributed kinds of literature to estimates the burden of HIV/AIDS, investigates the prevalence of HIV and preventive practice among street children and the results were activate the need for service and further researches on street children.

The result identifies several areas where policymakers and programmer need attention to reduce the vulnerability of street-children to HIV/AIDS at the national level. The Ministry of Health and private sectors should come forward to ensure future programs to meet the needs of this extremely vulnerable group.

These street children should also be included in the national serological survey, so that, more evidence-based information was available to help policymakers in any future decision-making regarding interventions for street children in the country.

The results of this investigation were also an in-form problem related to HIV/AIDS, risky sexual behavior for HIV and other health needs. To consider HIV prevention strategies in addressing voluntary counseling and testing. Also, the result of the study showed gaps in how the health service system address the problem related to HIV/AIDS, prevention service, and were urge interventions to be planned in modifying HIV prevention for those marginalized group of the community.

This study shows the current state of HIV prevalence among children of the street and demonstrates the health sector to achieve universal access to services for prevention, diagnosis, treatment, care, and support, It also offers solutions to improve the quality of care for the benefit vulnerable street children.

3. Objectives

The general objective of the research is to assess the prevalence of HIV/AIDS and preventive practices among street children in Jimma town from March 1-20, 2019.

Specific objectives:-

- > To Measure the prevalence of HIV/ AIDS among street children
- > To assess preventive practices towards HIV/ AIDS in street children

4. Methods and Materials

4.1. Study area and period

The study was conducted in Jimma town, Oromia regional state, 354 km far from Addis Abeba ,area 4623hectare, the town its bounded from the north Mana & Kersa worda, south Seka worda,East Kers Worda and west mana worda health profile the town had three hospital two Government and one private hospital respectively, four health center, thirteen urban and four rural health post, private health faculties are 29 medium clinics,41 small clinics, 22 pharmacies and 41 drug store within the town, ART Service Providing Health Facilities are two hospitals, two health center, two PMTCT sit and two NGO clinics. The town the largest urban its surroundings by high cash crop area, even though many children were attracted to searching for employment ,no data was found about the number of the street children and the type of health service provided to them. The study period was from February to May 2019. The population size of the city varies from source to source. According to the 2011 population projection of the city was 199,575. This makes the city among the 10 top most populous cities in the country.

4.2 Study design

Community-based Cross-sectional study design

4.3. Population

4.3.1 Source Population:

All of the street children in the thirteen urban Kebeles of the Jimma town

4.3.2 Study Population:

All of the streets children who fulfill inclusion criteria and having age range from 12-18 were included in the study.

4.3.3Study Unit:

An individual street child who was directly involved in the study.

4.4 Eligibility Criteria

4.4.1 Inclusion Criteria

- ✓ Children of the street whose age between 12-18years.
- ✓ Duration on the streets > 1month.

4.4.2 Exclusion criteria

- ✓ cognitive impairment (difficulty in understanding questions)
- ✓ auditory or verbal dysfunction (difficulty in the communication)
- \checkmark Those who are from migrant families
- \checkmark <12years

4.5. Sample size determination and Sampling technique /Sampling procedures

4.5.1 Sample size determination

It was planned to have a minimum sample size of 384, 50 % (α =0.05) was taken from a single population

proportion used sample size. Using
$$n = \frac{Z@/2\sqrt{p(1-p)}}{d2}$$
 sing

As a result, a preliminary assessment was made to quantify the number of street children who are residing in the study area and a total of 312 participants recruited after intensive searching in all over the thirteen Kebeles in Jimma town.

4.5.2 Sampling Technique/ Procedure

A preliminary survey was conducted all over the urban Kebeles of Jimma town with the help of community social workers and volunteers who are employees of Feya integrated development organization. Registration of all accessible street children in all corners of the town was made with similar assessment format which contains information to be filled like name, Nickname, age, sex, friends' name, usual area of residence, duration of street, any anatomical deformity and any communication difficulties with intention that these information's would be important during actual data collection. The surveys made to have a special focus to look for areas where these children's can live church and mosque areas, getaways of campuses, market

places, bus stations, around the stadium and under bridges and so on in addition to surveying kebele by Kebeles.

Fig.2

Figure 2 Diagrammatic illustration of sampling procedures

4.5.4 HIV testing

HIV testing was done using national, accepted rapid diagnostic test (RDT) following national HIV testing algorism and Voluntary HIV counseling and testing should be adapted to specific populations using Mixed service delivery models were used.(26) those identified HIV positive cases are put to ART, care support program (GOV &NGOs), Better tracking, enhanced social support, and regular adherence counseling addressing stigma and alternative healing options are needed (27). These testing strategies have been developed assuming that all HIV assays used have a sensitivity of at least 99% and a specificity of at least 98%, resulting in an overall positive predictive value of 99%.

Data collection instruments- Data were collected using interviewer-administered structured questionnaires that were prepared after reviewing different published kinds of literature and other guidelines. (28) To improve the internal consistency data collection tools were originally prepared in English and later were translated into Afaan Oromo and Amharic for easier facilitation of the research. The tools were translated back into English to determine the consistency of questions. Four data collectors' trained VCT nurses and laboratory technologist were recruited to collect data, conduct laboratory tests and principal investigator carried out the supervision. To control the quality of data, data collectors were trained for two days on how to collect and handle data and how to interact with the street children.

Data collection process has two-part:

(i) Data collection part.

Interviewer administered structured questionnaires were used, data collection tools were- prepared in English then translated into local language then translated back into English and two BSc clinical nurses were employed for the data collection process

(ii) Focused on voluntary counseling testing

Trained VCT nurses were involved for HIV testing; national HIV testing algorism and Voluntary HIV counseling and testing guideline were used

The Testing strategies were assuming that all HIV assays had a sensitivity of at least 99%, a specificity of at least 98%, and a positive predictive value of 99%.

4.6. Study variables Dependent Variables:

✤ HIV status and preventive practice.

Independent variables

- Socio-demographic factors: Age, Sex, Religion, Ethnicity, Educational Status of the Child,
- Socio-economic factors: Daily income of the child, Occupational status of the mother
- Risky behavior and risky sexual behaviors Alcohol consumption status, multiple sexual partners, casual sex; consistent use of condoms
- \clubsuit HIV/AIDS, care and social, health education

4.7. Operational definitions

Street Children: A child fulfilling the UNICEF definition of the street children and aged 12-18 years who have been on the street for at least one month.

Children of the Street: Children of either sex whose age group of 12-18 years who live and work on the street without any kind of control or assistance from parents or relatives, and both economically and socially engaged in street life.

HIV infection status: The confirmation of HIV status as per the National algorithms of test Prevalence- is the frequency of existing cases in a defined population at a given point in time Preventive practice - KAP of street children to ward HIV / AIDS prevention. Risk Sexual behavior <u>-</u>Multiple sexual partners, Miss Use of condoms, Rape Risk behaviors <u>-</u>Substance use (Alcohol, shisha, mastish, Kat chewing, Ganga)

4.8. Data processing and analysis

The data were entered using Epi-Data Manager Version 3.1 and then checked for completeness and error through double Entry verification then exported to SPSS version 21 (SPSS Inc. versions 21, Chicago, Illinois) deceptive statics was used and Variance (ANOVA) and a student's *t*-test were used to compare the mean score of KAP across subgroups, chi x^2 analysis was used to compare different characteristics For these variables, Mean differences have 95% Confidence Intervals as an indicator of statistical significance and precision. A P value ≤ 0.05 is a cut-point to determine the statistical significance of the tests.

4.9. Data quality management

The data were collected by four and HIV/AIDS VCT were conducted by trained clinical nurses and laboratory technologists supervised by the principal investigator. The data collectors a had two days of data collection training on how to conduct interview, how sample was taken by the laboratory technician or technologist following (FMOH) whom HIV/AIDS test Algorism guideline (SOP) and pretest counseling is given by trained nurse the result was written on lab.log book following the VCT posttest counseling the result was given to the participant through posttest procedure.

The data were monitored frequently before, during and after data collection, questionnaires were examined for completeness and consistency during the interview and at the end of each day.

Laboratory examination was conducted by a licensed laboratory technologist. A cross-check of results was conducted by a senior laboratory technologist.

4.10. Ethical consideration

All necessary ethical issue was based on the national research ethics review guideline of Ethiopian (25) overall ethical clearances were obtained from Jimma University Institute of Health Sciences, ethical review board(JU-ERB). Official letters were submitted to Jimma town Administration office, town health Office and respective Kebele administrations. Besides, official permission was obtained from the office of women, children and youth affairs and the town police department.

The nature of the study was fully explained to the study participants to obtain their oral informed consent before participation in the study. Privacy and confidentiality of collected information were ensured at all levels. Services were given through strategic entry point in prevention, care, support services and treatments were provided for children with identified health problems as per the objectives of the study and linked to the town health officer for further services, care, and support with follow-up.

Those children who were under 12 years of age were not the candidate of the study due to ethical issues. The national ministry oh science and technology review guideline recommends that children above 12 years of age and emancipated minors can participate in research with proper assent(25)

4.11. Dissemination plan

The finding of the research were disseminated in hard copy form and submitted to Jimma University, Institute of Health, Faculty of Public Health Epidemiology department, Research and publication office, Library catalog and effort will be made to publish the results in peer reviewed journals. The finding of the research related to health of the street children will be presented to Jimma town health office.

5. Results

A total of 312 street children aged 12 to 18 (mean age = 14 ± 1.6 SD) years were included in this study. Almost 90.4 % (n = 282) were males. The majority were Oromo ethnicities 238 (76.3%) and Muslim 76%. More than two-thirds (73%) came from rural areas and engaged in street life, Almost all (100%) the study participants had some type of job on the street which earns them a minimum of 15 Ethiopian birrs per day. prevalence

The study finding shows that why children are fledging into the street of Jimma town with many factors was listed for the reasons that push children to the street. Economic problems (47.4%), peer influence (28.8%), run away from family abuse (2.6%) and death of family (24.4%) were the reasons for joining the street life.

5.1 HIV status

HIV prevalence was 2.9 % (95 % CI 1.3-5.2) and the magnitude was high among males (2.58%), from the total of 312 street children aged 12 to 18 (mean age = 14 ± 1.6 SD) years were included in the study almost 90.4 % (n = 282) were males, these investigated HIV Positive children of the street were linked to the HIV Care/ART clinic, priority was given clinically to support life-saving treatment, such as initiation of ART and linked to Key population support groups and NGO and town health office for food, nutrition support and adopted associations or support saving account was opened cash support and I have the promise to start education by the next year.

Table 1	Socio-demographic	characteristics of street	t children in J	imma Town,	2019 (N =
312).					

Variable	<u>;</u>	Male		Femal	e	Total	
		No	%	No	%	No	%
		281	90	31	10	312	100
	12-14	168	54	23	7	191	61
Age	15-18	113	36	8	3	121	39
Total		281		31		312	
Religion							
Muslim		222	79	16	52	238	76
Christian	n	31	11	13	42	44	14
Others		28	10	2	6	30	10
Total		281		31		312	
Ethnicity	y						

Oromo	219	70	19	6	238	76
Amhara	17	5	3	1	19	6
others	45	6	19	6	64	21
Total	281		31		312	
Marital status	All are sir	ıgle				
Educational level						
never attend school	65	23	13	41	78	25
only read and write	22	8	1	3	23	7
4-Jan	140	49	15	48	155	50
8-May	54	19	2	6	56	18

5.3 HIV/AIDS risky sexual behaviors

A total of 312 among these 122(72%) had sexual practice without condoms, 136(44%) had multiple sexual partner and 74(24%) had the risk of contracting HIV through common use of sharp material together and 133(43%) did not know how they were at risk of contracting HIV. A total of 170 (54. %) had sexual intercourse in their lifetime, among these 170 (80%) had multiple sexual partners. Also, 122 (72%) of them use a condom, among these 122(81%) had inconsistent condom use in the last 12 months.

Table 2 Risky sexual behaviors of street children in Jimma town, 2019 (N = 312)

	Male		Female		Total	
Variable	N <u>o</u>	%	N <u>o</u>	%	N <u>o</u>	%
Ever had sexual intercourse						
1.Yes	151	54	19	61	170	54
2.No	130	46	12	39	142	46
Total	281		31		312	100
Reasons to have sex						
1.personal need	65	44	9	47	74	44
2.Khat or alcohol influence	17	11	1	5	18	17
3.To get money	14	9	2	11	16	20
4.peer pressure	51	34	7	39	57	72
5.Raped	0	0	3	2	3	2
Total	151		22		173	

Lifetime number of the sexua	l partner					
1.One	33	22	1	0	34	20
2.Two and above	118	78	18	11	136	80
Total	151		19		171	
Sexual intercourse in the last	12 months					
1.Yes	107	86	17	94	124	87
2.No	17	14	1	6	18	13
Total	124		18		142	
Sexual intercourse in the last	3 months					
1.Yes	27	16	1	0	28	16.4
2.No	21	50	4	80	25	53
Total	42		5		47	
Risky activities for contractin	g HIV					
1.sex without condom	86	51	0	0	86	51
3.I do not a reminder	117	42	7	23	124	40
4.multiple sexual partners	8	3	1	3	9	3
5.sharp material sharing	64	23	10	32	74	24
6.Other	7	2	2	6	9	3
Total	281		31		312	
The most common SRH prob	lem for street	t life				
1.STI	30	11	2	6	32	10
2.unintended pregnancy	22	8	4	12	26	8
3. lack of information about						
HIV/AIDS	196	70	21	64	217	70
4.sexual abuse	1	0	2	6	3	1
5.lack of legal protection	30	11	187	60	217	70
Total	279		33		312	
1.Condom use	20	12	0	0	20	12
2.Inconsistence	64	38	0	0	64	49

5.3 Alcohol consumption status

Alcohol use influences sexual behavior in ways that increase the risk of acquisition of HIV by reducing judgment on sexual behaviors that significantly affects once decisions making such as whether to use a condom or not during sexual activity, This paper examines drinking alcohol-related risky sexual behavior among the understudied population at high-risk for alcohol. The analyses for this paper were restricted to street children who reported current alcohol consumption 14% (n = 44).

Alcohol consumption patterns were assessed among street children involved in alcohol-related risky sexual behavior. Nearly 11% of street children who consumed alcohol were involved in alcohol-related risky sexual behavior Problem drinkers were more likely to report getting in Sexual intercourse after alcohol intake (χ² 95% Cl,0.14,0.18.p=0.04), having serious problems in consistent use condom

5.4 HIV Knowledge, Attitudes, and practice

From 312 participant 80% of the respondents had heard about AIDS through answering to the 3 knowledge, 8 attitude and 3 practice questions. The overall mean score knowledge, attitude, and practice was 53%, 54%, and 43% respectively. The four main sources of information about HIV/AIDS for street children were friends (58.4%), health facility/professional (17%), media (10.3%) and reading (4.8%).

Table 3 HIV Knowledge, Attitude and practice of children of the street in Jimma town, 2019

	Favorable answer		Unfavorable answer	
KAP-question	(N <u>o</u>)	%	(N <u>o</u>)	%
Knowledge toward HIV prevention				
1.do you have any information about HIV	250	80	62	20
2. condom use prevent HIV	214	69	98	31
3.sex with persons who is HIV -ve can transmit HIV4.sex with condom with a person who is HIV-ve can transmit	157	50	155	50
HIV	156	50	156	50
Attitude toward HIV prevention				
1.eating with an HIV+ person can transmit HIV	154	49	158	51
2.hand shaking with HIV +ve persons can transmit HIV	274	88	38	12
3. sharing clothes with an HIV+ person can transmit	149	48	163	52
4.caring as an attendant to an HIV+ person	145	46	167	54
5. work with an HIV+ person	129	41	183	59
6. people should be faithful to one uninfected partner to				
prevent HIV	137	44	175	56
7.people should use a condom to prevent themselves from HIV	196	63	116	37
8. Use a condom to protect from HIV	214	69	98	31
Practice toward prevention				
Ever use condom.	130	42	182	58
2. Faithful to one uninfected partner	32	21	280	90
3.Consistent use of a condom	20	13	292	94

5.5Knowledge of street children towards HIV/AIDS prevention

From the total 72% of men and 8% of women have information about HIV/AIDS and the risk of getting HIV can be reduced by using condoms and limiting sex to one, uninfected partner respectively Knowledge of HIV prevention methods is relatively high among men than women. The level of knowledge of participants ranges from 50% to 69% for each component of the three comprehensive knowledge questions (following fig and table 3). However, only 31.4% had comprehensive knowledge of HIV/AIDS.



Figure . 3 . Knowledge illustration on the HIV/AIDS prevention by sex

5.6 Attitude of street children towards HIV/AIDS prevention

The median score for the nine attitude questions rated from 1 to 5 was 4. Among 312 people who responded to all attitude questions, 56 (18%) had a favorable attitude towards HIV/AIDS while the remaining 256 (72%) had an unfavorable attitude. Since high proportion, the study unit was males from this study we can conclude that male had favorable attitude than females were 14% versus 4% respectively.

5.7 Practice of street children towards HIV/AIDS prevention

Among the 170 ever sexually active street children, 20 (15%) had ever used a condom of whom only 22(13%) used it in their recent sexual intercourse. However, among those who reported condom use, 19 (73%) used condoms consistently and the sexually active street children 137 (80%) had two or more sex partners in their lifetime. The proportion of condom users in the recent sex was relatively higher among those having two or more sex partners (36.5 versus

20.5%)just more than half (51.7%) of the street children in this study Considered them to be at risk of contracting HIV infection.

Table 4 the reason why children of the street do not use a condom in Jimma town, 2019					
The reasons would not use condoms.	No	%			
Because of alcohol	5	6			
No satisfaction	19	22			
Cost of the condom	12	14			
I do not understand the use	32	37			
unavailability of condom	18	21			

5.8 Associations of knowledge with attitudes and practices among street children towards HIV/AIDS prevention

Bivariate correlations showed a positive, significant relationship between knowledge and attitude (r=+0.456, P =0.000). This shows that respondents with a range of knowledge were likely to Have proportionately positive attitudes than those with a low level of knowledge. A negative correlation was found to exist between knowledge and behaviors/practices but this was not significant (r = -0.014, P = 0.922) (table 4).

6. Discussion

Total of 312 children of street were involved in the study, most of them were male,284 (91%), median duration on street life was 12 months, the median age of participants was 14 years and the prevalence of HIV among of the street children in the age group of 12 to 18 years in Jimma town according to this study was found to be 2.9 % which was much higher than what has been reported in the general population figures of 0.9 %. The results of this investigation can be an Opportunities to reinforce entry points in identifying HIV status of street children that worse coming proportion of infections in key populations were found to be considerable/risk high HIV infection.

To the level of the investigator understanding these data were among the third reporting HIV prevalence among children of the street in sub-Saharan Africa 2.9% of participants was HIV infected next to 1.1 % Zambia(29) and 6% western Kenya(30) study conducted different area respectively

These may be due to the burden of HIV among children of the street in sub-Saharan Africa has yet to be well described, Data regarding HIV among children of the street in low-income and middleincome countries is more limited.

The prevalence of HIV 2.9 % among children of the street was higher than national and regional prevalence data respectively compared with the national general population survey 0.9% and HIV/AIDS prevention and control directorate 2019, 6 months performance report HIV prevalence regional state were 0.67(11) (2).the possible reason would be Lack access to Healthcare among off-street children, which provides HIV care and multiple community-based testing opportunities and Jimma town is one of the cash crop area southwest in Ethiopia.

Also, the prevalence of HIV was 2.9 % among children of the street higher when compared with other studies conducted. Sub-Saharan Africa 0.8–1.7%(22),1.1 % Zambia (29) and Mobile and resident workers in hot spot areas 1.5%(31). These would be due to high-risk sexual behavior that includes unprotected sex, multiple sexual partners, inconsistently use a condom and lack of access to health care, information gap on the prevention of HIV/AIDS and other socio-economic problems.

The prevalence of HIV 2.9 % among children of the street was also lower when compared with studies conducted. Among street dwellers, the prevalence of HIV was found to be 6.9%. (20) and the OVC under 18 years showed 11•9% were HIV-positive (32)

The prevalence of HIV by gender observed among children of street male 2.58%, female 0.32% compared with the national survey was nearly similar to female but high among males. Adolescent age 15-19 years found to be female 0, 3%, man 0.1% and lower when compared key population groups (FSW) were, Hawassa 23%, Mekelle 14% and Bahardar 32% (26) These could be possible explanations the level risk of exposure and socioeconomic status when we see high prevalence HIV CSW would be Sexual practice for means of survival due to economic problems.

This study provided the opportunity to look high proportion (80%) of respondents had multiple sexual partners when compared with 69% multiple sexual partners (33)4%2016 EDHS(11)(28) and 54% multiple sexual partners (34) were observed the possible reason would be lack of psychosocial support from parents, peer pressure, higher prevalence of substance abuse. low risky

sexual behavior of HIV/AIDS were observed among Jimma town children of the street when compared with other studies conducted

This study provided the opportunity to look at the reasons not to use condoms included 21% unavailability,22% reduce pleasure included,37% they did not understand the use of condom and 14% cost of the condom which was different from the study conducted in Botswana were observed that increased pleasure 30%, influence of alcohol 27% and unavailability of condom 10%.(35)(36)

From the total participant 80% the respondents had heard about HIV/AIDS and 53 % had knowledge on risk of getting HIV can be reduced by using condoms and limiting sex to one uninfected partner were low when compared with study conducted in different area showed that level of knowledge ranges from 67%-95.4% (33) and Knowledge were 62.1%. (37) these would be due to lack of health care service that leads to risky sexual behavior on the other hand in this study showed that level of knowledge were low when compared with other studies conducted Seasonal migrant laborers in 67%-95.4%(33) ,69%,2016 EDHS (28)and 62.1% (37) ,therefore the possible reasons would be there were no well-structured sexual or reproductive health education programs that focus on vulnerable street children.

The median score of attitude was 18% had a favorable attitude and 72% had an unfavorable attitude towards HIV/AIDS prevention level of attitude favorable were low when compared with other studies conducted in Gonder and West Kenya respectively 23.7%(21), 52.5 %(30). These would be due to a lack of reproductive health service and health education programs in addressing the health needs of children of the street regarding the prevention of HIV/AIDS.

Despite the limitations, this study provides evidence, why street children pushed in to the street life, were economic problem (47.4%),death of family (24.4%),peer influence (28.8%) almost similar with thus study conducted in different part area showed that conflict with biological parents and economic and social factors appeared primary pushing children onto the street(15) in the Hawassa city and orphaned 18.5%, poor family 4.3%, and alcoholic parents 3.3% in the capitally city Ethiopia Addis Ababa(38).

This study provided the opportunity to look at the Knowledge with attitudes and practices bivariate correlations showed a positive and significant relationship between knowledge and attitude (r=+0.356, P =0.000), these shows that respondents with range of 50% to 69% knowledge were likely to have proportionately positive attitudes than those with low level of knowledge. A negative correlation was found to exist between knowledge and behaviors/practices but this was not significant (r = -0.014, P = 0.922).

In these studies we had tried to show the relationship between risk behavior and risky sexual behavior it was observed that 14%(n=44) street children involved in risk behavior 11% showed that alcohol-related risky sexual behavior was statically significant (chi-x² 95% Cl, 0.14, 0.18.p=0.04) with inconsistent use of condom compared with study conducted in (35)Botswana Alcohol consumption had relationship with high-risk Sexual behaviors.

Also this study provided the opportunity for HIV testing uptake were low among children of street and the finding would support could the best experience to increase ART uptake national data showed low performance that only 12% of HIV-positive children were linked on ART(1) and It is important to facilitate greater uptake of HIV testing amongst children of street and in particular those groups of children that might have a higher prevalence of HIV

In this study, the prevalence of HIV was 2.9 % among street children were higher when compared with Studies done on, late adolescent street children, Mobile, and resident workers in hot spot areas ,and general population survey (1.1 %, 1.5%, and, 0.9%.), Prevalence was higher when compared among street-connected adolescents in sub-Saharan Africa 0.8–1.7%(29) (22) (39)

The study conducted in Gonder city among street dwellers the prevalence of HIV was found to be 6.9% high when compared these study, According to HIV/AIDS prevention and control directorate 2011, 6-month performance report HIV prevalence regional state was 0.67 low when compared to the current result(40).

Survey implies prevalence among adolescents age 15-19 years found to be 0, 3%, 0.1 for females and men respectively were as this study showed high among male 2.58.

The prevalence was low when compared with key population groups HIV prevalence among FSWs was 23%, 14% and 32% in Hawassa, Mekelle and Bahardar town respectively.

In this study, only 53% of participants had information that the risk of getting HIV can be reduced by using condoms and limiting sex to one uninfected partner was found to be low when compared 69%(28)

Among the 170 ever sexually active street children, 15% had ever used condom of which only 13% uses it in their recent sexual intercourse, however, among those who reported condom use, 19 (73%) uses condoms consistently when compared to the resent study its low and relatively at high risk to HIV transmission (39)

In this study, sexually active 80% of participants had multiple sexual partners high when compared to 2016 EDHS (4%) Among sexually active participants, high proportion (80%) of respondents reported that they had multiple sexual partners which were almost similar when compared with the previous study done in Dessie town (80.6%) but lower when compared with other study conducted in Gonder town (91.7%)

Comprehensive knowledge, of participants ranges from 50% to 69% and main source of information were found to be friends (58.4%) the finding was much lower than the results of the study on seasonal migrant laborers in Metema (67%-95.4%) the main source of information were radio (55.7%)(39). In our study, 53 % of participants had a low level of knowledge of HIV/AIDS whereas those with a high level of knowledge comprised 62.1%(37).

Almost all 100% of the study participants had some type of job on the street which earns them a minimum of 15 Ethiopian birrs per day. In line with this study the investigation suggest the reasons why children are fledging are almost similar with study conducted in Addis Ababa but different were orphaned 18.5%, poor family 4.3%, and alcoholic parents 3.3% are mentioned by the respondent as reasons(10) the same was true according to the study conducted Hawassa City also the basic factors pushing children onto the street life were family poverty followed by conflict with biological parents. Thus, economic and social factors appeared were primary pushing children onto the street.(15)

In this study, 14% street children involved in risk behavior 11% showed that alcohol-related risky sexual behavior was statically significant (chi;² 95% Cl,0.14,0.18.p=0.04) with having serious problem inconsistent use of condom, study conducted in Botswana investigate reasons cited for not using condoms were included alcohol/drug consumption, specifically alcohol consumption

associated with high-risk sexual behaviors like inconsistent use of condoms(35) and the same is true in the study conducted in Accra Ghana Street adolescents who have ever drunk alcohol were independently associated with all the indices of risky sexual behavior (ever had sex, non-condom use, multiple sexual partners)(34).

In this study, although risky sexual behavior were observed ,Had sexual intercourse(54%), had multiple sexual partner(81%), had sex in the past 12 month(73%) and had casual sex in the past 3 month(47%) the study conducted in metema showed that risky sexual behaviors of seasonal migrant laborers which were high compared to the current study, 77% had sexual intercourse in their lifetime.,74% sex with commercial sex workers (CSWs). , 69% of multiple sexual partners and 58% never use a condom during any sex episodes(33).

In this study, HIV Positive Street children were linked to the HIV Care/ART clinic; priority was given clinically to support life-saving treatment, such as the initiation of ART those support ART uptake national modeling data showed that only 12% of HIV-positive children 15 years and younger are on ART. The widest gap in terms of ART coverage is among children in the older age groups. (32)

The results of current investigation showed that among sexually active on street adolescent children 136(80%) had multiple sexual partners ,122(81%) had inconsistent condom use were observed and the reasons for sex were 43% had sex for personal need ,35% had sex due to peer pressure, 11% had sex under the influence alcohol,9% had sex for money and 2% due to rape when we compare the study conducted sexual risk behavior among street adolescents in rehabilitation centers in Kinshasa Condom use is not understood by 56.5% of males and 25.5% of females and reasons for sex were enjoyment and peer pressure for females.(12)

The results of this investigation can be an Opportunities to reinforce entry points in identifying HIV status of street children that worse coming proportion of infections in key populations were found to be considerable/risk high HIV infection when compared to national (.9%) due to limited access to services, therefore, the current HIV prevention program modifying through active research and development of community-friendly interventions are highly needed and the national serological survey so that, in the near future for more evidence-based information be available to help policymakers in any future decision-making regarding interventions for street children in the country

Therefore the finding contributes to the body of evidence on street children community. Notable was also the fact that the prevalence varied significantly among the various population categories, Furthermore, the burden of HIV among street children was found to be higher among males than females

7. Strengths and Limitation

The study has focused on marginalized and neglected groups of the community who are highly vulnerable to HIV and the results at best give an in-depth understanding of the vulnerability of street-children of Jimma town city to HIV/AIDS.

This might certainly identify some of the preventive practice gaps and serve as base line information for future studies. and also contribute to increasing the number of street children who know their HIV status and the data discusses for further research to assess the barriers to testing and treatment, for the development of innovative testing approaches specific to this group.

Our sample size was limited and did not have the power to evaluate the role of all sociodemographic variables that may contribute to HIV. As this study deals with sensitive topics that adolescents are often not comfortable Discussing, our results are subject to reporting bias. Participants were informed on multiple occasions that anonymity was being applied and that they were not required to answer questions that caused discomfort.

8. Conclusion

The prevalence of HIV/AIDS among children of the street was higher than the general population and high proportion children of the street were engaged in risky sexual behaviors such as multiple sexual partners, unprotected sex and inconsistent use of condom, there was considerable gap in Knowledge, attitude and practice regarding HIV/AIDS preventive practice.

9. Recommendations

Health Policy:-The national health policy should recognize to develop and to improve urban primary health services to meet the challenges of children of the street and needs to recognize children of the street are a population group with special needs. Children of the street should be included in national, regional HIV prevention programs and serological surveys.

The health service guidelines should also give exempt health service for children of the street from health service as a fee waiver. Because based on this research result children of the street are vulnerable to HIV/AIDS-related health problems.

Town administration office:-To improve access for primary health care services to children of the street should not only provide free health care services but also address Community friendly interventions service, social, cultural and environmental factors that restrict access. Therefore efforts should be made to ensure that children who drop out-of-school and other children of the street are provided basic primary education. None formal or special primary education program will be critical in reaching children living on the street.

More research and evidence-based information for greater understanding of the living condition and another health status of children living off the street are necessary to formulate appropriate policies, strategies, programs, and health services to help policymakers in any future decision making regarding interventions for this highly vulnerable group. The current study covered only Jimma town. A large study covering the main cities in the country should be carried out. Such studies would provide more comprehensive understanding children of the street are vulnerable to HIV/AIDS-related health problems.

Reference

- 1. Goals D, Goals D. from.
- 2. Manual P. National Comprehensive HIV Prevention, Care and Treatment Training for Health care Providers. 2018;
- Murray LK, Singh NS, Surkan PJ, Semrau K, Bass J, Bolton P. A Qualitative Study of Georgian Youth Who Are on the Street or Institutionalized. 2012;2012(2005).
- 4. Bandurraga A. The Sexual Health of Homeless Youth. 2011;19–22.
- 5. Cumber SN, Tsoka-gwegweni JM. The health profile of street children in Africa : a literature review. 2015;6:85–90.
- 6. Hills F, Meyer-weitz A. The lived experiences of street children in Durban, South Africa : Violence, substance use, and resilience. 2016;1:1–11.
- 7. Report U. Report. 2012.
- 8. Ababa A. Sexual and physical abuse and its determinants among street children in. 2018;1–8.
- 9. Woan J, D M, Lin J, H MP, Auerswald C, S M. The Health Status of Street Children and Youth in Low- and Middle-Income Countries : A Systematic Review of the Literature. J Adolesc Heal [Internet]. 2013;53(3):314-321.e12. Available from: http://dx.doi.org/10.1016/j.jadohealth.2013.03.013
- 10. Habtamu D, Adamu A. Assessment of Sexual and Reproductive Health Status of Street Children in Addis Ababa. 2013;2013.
- 11. Survey H, Findings K. Ethiopia. 2016;
- 12. Access O. Open Access. 2011;8688:1–17.
- 13. Habtamu D, Adamu A. Assessment of Sexual and Reproductive Health Status of Street Children in Addis Ababa. 2013;2013.
- 14. Tadesse N, Ayele TA, Mengesha ZB, Alene KA. High prevalence of HIV / AIDS risky sexual behaviors among street youth in gondar town : a community based cross sectional study. BMC Res Notes [Internet]. 2013;6(1):1. Available from: BMC Research Notes
- 15. Kebede SK. The Situation of Street Children in Urban Centers of Ethiopia and the Role of NGO in Addressing their Socio-Economic Problems : The Case of Hawassa City . 2015;3(March):45–57.
- Mohammed Y, Bekele A. Seroprevalence of transfusion transmitted infection among blood donors at Jijiga blood bank, Eastern Ethiopia : retrospective 4 years study. BMC Res Notes. 2016;6–11.
- 17. Ontario Ministry of Health. Guidelines for HIV Counselling and Testing. 2008;(November):1–34. Available from: https://aidsfree.usaid.gov/sites/default/files/hts_policy_nigeria.pdf%0Awww.health.gov.on.ca/HIV
- 18. Ministry F, Women OF. ORPHANS AND VULNERABLE CHILDREN. 2010;
- 19. Fairbairn N, Wood E, Dobrer S, Dong H, Kerr T, Debeck K. The Relationship Between Hazardous Alcohol Use and Violence Among Street-Involved Youth. 2017;852–8.
- Moges F, Kebede Y, Kassu A, Degu G, Tiruneh M, Gedefaw M. Infection with HIV and Intestinal Parasites among Street Dwellers in Gondar City, Northwest Ethiopia. 2006;3(10):400–3.
- 21. Tadesse N, Ayele TA, Mengesha ZB, Alene KA. High prevalence of HIV / AIDS risky sexual behaviors among street youth in gondar town : a community based cross sectional study. BMC Res Notes [Internet]. 2013;6(1):1. Available from: BMC Research Notes

- 22. Winston SE, Chirchir AK, Muthoni LN, Ayuku D, Koech J, Nyandiko W, et al. Prevalence of sexually transmitted infections including HIV in street-connected adolescents in western Kenya. 2015;353–9.
- 23. Ntozi JPM, Mulindwa IN, Ahimbisibwe F, Ayiga N. Has the HIV / AIDS epidemic changed sexual behaviour of high risk groups in Uganda ? 2002;107–16.
- 24. Minstry F, Health OF. NATIONAL GUIDELINES FOR COMPREHENSIVE HIV PREVENTION, CARE AND TREATMENT. 2017;
- 25. national-research-ethics-review-guidline (1) Copy.pdf.
- 26. Democratic F. National Guidelines for Comprehensive HIV Prevention, Care and Treatment, 2014. 2014;
- 27. National THE, Program ART. PATIENT LINKAGE, RETENTION AND FOLLOW-UP in HIV CARE STANDARD OPERATING THE NATIONAL ART PROGRAM. 2012;(February).
- 28. Survey H. Ethiopia. 2016.
- 29. Chanda-kapata P, Klinkenberg E, Maddox N, Ngosa W, Kapata N. The prevalence and socio-economic determinants of HIV among teenagers aged 15 18 years who were participating in a mobile testing population based survey in 2013 2014 in Zambia. BMC Public Health [Internet]. 2016;1–7. Available from: http://dx.doi.org/10.1186/s12889-016-3449-3
- Cornally P, Butler M, Murphy M, Rath A, Canty G. Exploring women's experiences of care in labour. Evid Based Midwifery. 2014;12(3):89–94.
- 31. 2011 EC 6 months HIV_AIDS Performance.
- 32. Pegurri E, Konings E, Crandall B, Haile-selassie H. The Missed HIV-Positive Children of Ethiopia. 2015;1–10.
- Tiruneh K, Wasie B, Gonzalez H. Sexual behavior and vulnerability to HIV infection among seasonal migrant laborers in Metema district, northwest Ethiopia: a cross-sectional study. 2015;1–10.
- Asante KO, Meyer-weitz A, Petersen I. Substance use and risky sexual behaviours among street connected children and youth in Accra, Ghana. 2014;1–9.
- 35. Stephens LL, Bachhuber MA, Seloilwe E, Gungqisa N, Mmelesi M, Bussmann H, et al. NIH Public Access. 2012;4(6):159-64.
- 36. Nelson EE, Guyer AE. NIH Public Access. 2012;1(3):233–45.
- 37. Region SW. Knowledge, attitudes and practices regarding HIV / AIDS among senior secondary school students in Fako Division,. BMC Public Health [Internet]. 2016;1–10. Available from: http://dx.doi.org/10.1186/s12889-016-3516-9
- 38. Abashula G, Jibat N, Ayele T. The situation of orphans and vulnerable children in selected Woredas i and towns in Jimma Zone. 2014;6(September):246–56.
- Zeleke BM, Ayele TA. Comprehensive knowledge, attitude and practice of street adults towards human immunodeficiency virus / acquired immune deficiency syndrome (HIV / AIDS) in Northwest Ethiopia. 2013;(June).
- 40. Misganaw AC, Worku YA. Assessment of sexual violence among street females in Bahir-Dar town, North West Ethiopia: a mixed method study. BMC Public Health [Internet]. 2013;13(1):1. Available from: BMC Public Health

Annex 1: Questionnaire

JIMMA UNIVERSITY Institute of health Department of Epidemiology Prevalence of HIV/AIDS and preventive practices among street children in Jimma town, Oromiya southwest Ethiopia

Structured questionnaires for the assessment of Prevalence of HIV and preventive practices among street children in Jimma town, Oromiya, southwest Ethiopia

To the data collector, please inform the respondent about the aim of the study as described below.

INFORMED CONSENT SHEET

Dear respondent, my name is ______ and I am Jimma University MPH Student. I am collecting data on the prevalence of HIV and preventive practice among street children in Jimma town. The questions ask about HIV tests, sexual behavior, risk behavior, knowledge, attitude, practice and other as well as your age, gender and so on. Your answer will be looked at by the researchers who are trying to learn more about the prevalence of HIV, preventive practice and will be compared with the answers made by young people in the other parts of the world. If this study is to be helpful, it is important that you should answer each question as carefully as possible. All your answers will be kept strictly confidential and we are not asking you your name.

Do you agree to participate? 1. Yes, 2. No

If no respect the decision and thank her/him. If yes, continue the interview.

This is not a test: there is no right or wrong answers, but please answer carefully. For each question pick the answer that fit you the best and circle on it.

I Socio demographic factors Questionnaire

S.No	Questions	Response category	skip
1.	What is your age?	In (years)	
2.	What is your sex?	1. Male	
		2. Female	
3.		1.On the street	
4	Type of street life	2.0ff the street	
4.	The reason you engage street life	2 school problem	
		3.vour families are poor	
		4.for freedom	
		5.independence	
		6 substance use	
		7.am form the street families	
5.	If the reason is the death of a	1.illness	
	y in what case	2.death due to HIV/AIDS	
		3.ware	
6	Educational laval	4.migration	
0.	Educational level	 Never attend, Read and write only 	
		3. 1-4 grades	
		4. $5-8$ grades	
		5. $9-12$ grades	
7		1 4 1	
1.	what is your ethnicity?	1. Amnara	
		2. Oromo	
		3. Tigre	
		4. South nation	
8.	What is your religion?	1. Orthodox	
		2. Muslim	
		3. Protestant	
		4. Catholic	
		5. others specify	
9.	Where have you born?	1. Urban	
		2. Rural	

10.	How much money do you get daily? In Birr Did you help your family with your	1. <10 2. 11-20 3. 21-30 4. >30 5. No income 1.yes	
	income	2.no	
12.	In what activity do you engage to earn money?	 Begging Working as daily laborers prostitution shoe shining Petty trade Sex for money other specify 	
13.	Is your family alive	1.yes 2.No	
14.	Which of the following best describes the family you currently live with?	 A) Mother B) father C) mother and father D) Relatives E) friends F) alone 	
15.	How long have you been living on the street?	1. <1 month 2. <6 month 3. <1 year 4. >1 year	

III HIV/AIDS, risky behavior and risky sexual behaviors

1. S.N	Questions	Response category	sk
0			ip
2.	Ever had sexual intercourse?	1.yes	
		2.no	
3.	Reason to have sex	A. Personal desire	If
		B. Peer pressure	n
		C. Fell in love	0
		D. Influence of chat or alcohol Raped	g
		E. Marriage	0

		F. To get money	to
		G. Others	q
			ue
			sti
			0
			n
			n
			о.
			2
			4
4.	Lifetime number of the sexual partner	1.One	
	1	2.more than one	
5	Sayual intercourse in the last 12 months	1 Vac	
5.	Sexual intercourse in the last 12months	1.105	
6	Number of the sexual partner in the last	2. NO	
0.	12 months	2 More than one	
7	Type of sevuel practice		
7.	Type of sexual practice	1 anal say	
		2 upprotected sex	
		2. unprotected sex	
		J. Sulvival sex	
		4. nonosexual sex	
0	Ever use of a condom	1 voc	
0.	Ever use of a condom	1. yes	
		2. no	
9.	Consistency condom use in the last 12	1. Consistent	
	months	2.Inconsistent	
10.		1. Not available	
	Reason for not to use condom in the last	2. Too expensive	
	12 months	3. Ashamed to ask my partner	
		4. Partner objected	
		5. Do not like it	
		6. Reduce sexual satisfaction	
		7. Ashamed to buy	
		8. Negligence	
		9. Others	
11.	Condom use during last sexual	1. Yes 2. No	
	intercourse		

12.	Sex with CSW in the last 12 months	1. Yes 2. No	
13.	The types of substances	 Chat Cigarette Shisha Benzene Other 	
14.	Alcohol consumption status	 Alcohol intake Never Sometimes Most of the time Daily 	
15.	Sex after alcohol intake	1. Yes 2. No	
16.	Sex with condom after alcohol drink	 Yes No Do not remember 	
17.	Did you face any violence	1.yes 2.no	
18.	Which type of of violence	1.sexual 2.physical 3.verbal	
19.	Unwelcome sex in 12 months	1. Yes 2. No	
20.	If yes, ask her/him safe or unsafe	1.condome is used 2.not used 3 not remember	
21.	Risky activities for contracting HIV	 Sex without condom Not remember More than one sexual partner Injury with sharp materials Sex with commercial sex worker Inconsistence condom use Rape Others 	
22.	The most common SRH problem for street life	 Rape STIs Sexual exploitation Lack of SRH information Unwanted pregnancy Lack of legal protection 	
23.	Do you have any information about HIV	1.YES 2.No	

24.	From did you here information	1.health facility2.radio3.paplate reading4.freinds
25.	If yes ,what do you known about HIV/AIDS	 Mode infection Mode of transmission Its prevention about condom use About the treatment Care and support
26.	Have you ever seen health facility	1.yes 2.no
27.	If yes .For what reason you visit health facility	1.for treatment seeking2.FP3. to take condom4.to be tested for HIV
28.	If the answers to the above quas.number for what was the test result	1.HIV + 2.HIV -
29.	Do you want to be test today for HIV	1.yes 2.no
30.	Did you get any support	1.yes 2.no
31.	What type of support	1. health care (treatment,FP)2.finacial support3.other specify
32.	If yes directly go to the VCT protocol and take consent do the test	

Know	ledge to ward HIV prevention among street children	Yes	no	I don't know
1.	Do condom prevent HIV			
2.	Can HIV be prevented making sex with condom a persons who is HIV - with condom			

Attitude towards prevention of HIV/AIDS among street children

s.no	(Attitude item)	Very dis	disagree	neutral	Agree	Very agree
		agree				
1.	Eat with an HIV+ person)					
2.	Share cloths with an HIV+					
	person)					
3.	Shake hands of an HIV+					

	person)			
4.	Caring as an attendant to an			
	HIV+ person			
5.	Work with an HIV+ person			
6.	Abstain from sex to prevent			
	HIV			
7.	People should be faithful to			
	one uninfected partner to			
	prevent HIV			
8.	People should use condom to			
	prevent themselves from			
	HIV			
9.	Use condom to protect from			
	HIV			

Today do you want to have VCT?

1. yes 2.no

If, yes send to VCT room

Annex 2. Preliminary assessment format

Preliminary assessment format

Name of surveyor_____

+251_____

Phone N.

Kebele for survey_____

S.N	Name of the child	Nick name	sex	age	Area of Usual residence	Friends name	Return to home at night	Place to sleep at night	Duration on/off the street
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Anatomical deformity=

Communication problem- unable to speak and hear

Abbreviations and Acronyms

AIDS: Acquired immune deficiency syndrome

HIV: Human immune deficiency virus

NGOs: Nongovernmental organizations

VCT: voluntary counseling an testing

SPSS: Statistical package for social science

SRH: Sexual and reproductive health

STD: Sexually transmitted diseases UN: United Nation

UNICEF: United Nation International Children Emergency Fund

List of table

Table 5.2 Socio demographic characteristics of children of the street.

Table 5.4 Risky sexual behaviors of children of the street.

Table 5.6 HIV Knowledge, Attitude and practice of children of the street.

Table 5.10 The reason why children of the street do not use condom

List of figure

Figure 1 Conceptual framework adopted from review of different literature.

Figure 2 Diagrammatic illustration of sampling procedures

Figure 3 HIV taste flow