



Risky Sexual Behavior and Associated Factors among Youth in Kakamega and Kericho Counties, Kenya

Joab Khasewa^{1*}, Isaac Mwanzo¹ and Alloys Orago²

¹Department of Community Health and Epidemiology, Kenyatta University P.O. Box 43844-00100, Nairobi, Kenya and ²Department of Pathology, Kenyatta University P.O. Box 43844-00100, Nairobi, Kenya

*Corresponding author. Joab Khasewa. Email: jkhasewa@gmail.com

DOI: <https://dx.doi.org/10.4314/ajhs.v36i1.8>

Abstract

INTRODUCTION

HIV remains the most significant public health and developmental challenge in the world. In Kenya, just like the rest of sub-Saharan Africa, young people aged 15-24 years bear the biggest brunt of the HIV epidemic. Lack of comprehensive knowledge of HIV prevention, low condom use, low uptake of HIV services and having multiple sexual partners, have been associated with these trends. This study set out to determine risky sexual behaviour and associated factors among youth in Kakamega and Kericho Counties in Kenya.

METHODOLOGY

To achieve this, a cross-sectional survey was conducted among youth in Kakamega and Kericho counties, Kenya. Consenting young people residing in these counties were the study subjects. Data was collected through structured interviews with young people using a standard questionnaire and direct observation. The qualitative data were transcribed, translated and entered into NVivo software for coding and further analysis. The quantitative data were entered into SPSS for descriptive and inferential analysis.

RESULTS

Despite the youths in both counties having high comprehensive knowledge of HIV prevention at 79.3%, they still engaged in risky sexual behaviours and 60.6% were in a sexual relationship. The uptake of HIV testing was 58.4% with an HIV prevalence of 6.9%. Condom use was only 48.1% and both males and females did not reveal irritation in the genital area to partners χ^2 - test showing ($P > 0.05$).

CONCLUSION

The results of this study will inform the design of an HIV prevention information package that will promote safer sexual behaviour among young people.

Keywords: HIV Messages, Young Adults Aged 15 – 24, HIV Prevention Tool, Risks Involved In Sexual Behaviour and Safe Sex

[*Afr. J. Health Sci.* 2023 36 (1): 64-74]

Introduction

Human immunodeficiency virus is the most important public health and developmental challenge in the world. Efforts made worldwide in reducing HIV infection to less than 500,000 by

the year 2020 have been off-track. Globally, in 2019, over 1,700,000 people were infected with HIV compared to 1,900,000 in the year 2015. This represents an 11.0% decline. Approximately 460,000 people between the ages of 15 -24 years



were newly infected with HIV in 2019 down from 570,000 in 2015 in the world (1). The Sub-Saharan African region had approximately 990 000 new HIV infections in 2019 compared to 1.29 million in 2015 representing a 23 % decline. An estimated 332,100 young people (15-24 years) got newly infected in 2019 in the sub-Saharan region down from 426,000 in 2015. East and South African regions had the highest reduction in new HIV infections at 38 % since 2010. An estimated 260 000 young people got newly infected in 2019, down from 340 000 in 2015 (1). Only 30% of males and 19 % of females, 15-24 years, have comprehensive knowledge of HIV in sub-Saharan Africa. Condom use by men who are at higher risk was only 58.6%, far from the global target of 90% by 2020 (2).

New HIV infections in Kenya have stabilized at an average of 41 408 people down from 51 000 in 2015 (3). Young people bear the biggest brunt of the HIV epidemic and contribute 42.0% of new infections in Kenya (4). Only 37.5% of females and 68.9% of males, 15-24 years, having a more sexual partner in the past 12 months reported using condoms. Additionally, only 54 % of females and 64 % of males in this age group have comprehensive knowledge of HIV prevention (5,6). Despite the availability of various array of effective HIV prevention methods, young people aged 15 -24 years in Kakamega and Kericho counties contributed to 27.0 % and 32.0 % of all new HIV infections in the counties respectively (3,7). Only 59.0% of young people in Kakamega County and 59.6 % in Kericho County in this age group have comprehensive knowledge of HIV prevention against a target of 90.0 %. Only 27.0% and 41.0% of males 15-24 years old, in Kakamega and Kericho County with more than one partner, reported using condoms during their last intercourse (5).

A cross-sectional study in Ethiopia to assess university students' HIV and AIDS

knowledge and their sexual behaviour revealed a highly comprehensive knowledge of HIV prevention and condom use (8). Emphasis on designing different strategies should be given to reduce risky behaviour and increase comprehensive HIV knowledge. A cross-sectional study was conducted in Kuwait to measure the student's knowledge and attitude towards HIV/AIDS. This study revealed that the students were knowledgeable concerning the nature and mode of transmission of HIV/ AIDS, but they needed a more detailed understanding of the disease to prevent stigmatization and discrimination of an infected person (9). A cross-sectional descriptive design was used in Tanzania to assess HIV and AIDS knowledge, attitudes and behaviours among higher education students. About three-quarters of respondents demonstrated comprehensive knowledge about HIV and AIDS, and the majority of respondents expressed positive attitudes towards people living with HIV and AIDS. The results show that sexual behaviours among students in higher education are characteristically risky, and do not significantly differ from youth in the general population (10). This study aimed to determine risky sexual behaviour among young people of 15-24 years in Kakamega and Kericho County. The researcher hypothesized that comprehensive HIV knowledge does not affect risky sexual behaviour among young people aged 15-24 years in Kakamega and Kericho counties, Kenya.

Materials and Methods

The study adopted a descriptive cross-sectional study design using a structured questionnaire. All consenting youth in Kakamega and Kericho counties during the data collection period were considered for inclusion in the study.

The main outcome measure was the uptake of condoms, HIV testing services, concurrent partnerships and syphilis infections. The study also gained from the advantages and



strengths of cross-sectional design including conducting the study at a relatively low cost within a reasonable time and no loss to follow-up (11).

Purposive sampling was used to select Kakamega and Kericho counties which have high HIV and new HIV infections among the youths. Stratified sampling was used to select three sub-counties in each County to represent urban, cosmopolitan and rural youth respectively. Simple random sampling was used to select colleges or technical institutes to represent in-school youth and youth groups to represent out-of-school youth in the study counties. Consecutive sampling was used to include all accessible individual study participants to provide information.

A sample size of 495 youth was determined based on Suresh and Chandrashekara's formula and by adjusting for a 10% non-response rate (13). The stratified probability proportional to size (PPS) method (14) was used to obtain the number of young people to be sampled as 331 from Kakamega and 164 from Kericho county.

The primary data was collected from groups of young people by using self-administered questionnaires which had both structured and unstructured questions. Four key informant interviews with program implementers and six Focus Group Discussions (FGDs) with youths were conducted for qualitative data. The questionnaire together with participants' responses was then coded and entered into a computer for analysis. Qualitative data obtained using FGDs and key informant interviews were transcribed, translated and entered in NVivo software for coding and further analysis. The quantitative data were entered into SPSS and analyzed using descriptive and inferential statistics.

Ethical considerations

The proposal was submitted to Ethical Review Committee, Kenyatta University for approval before the start of the study and a research permit was obtained from NACOSTI. Kakamega and Kericho counties gave clearance to collect data from colleges and youth groups. Written informed consent was obtained from all the study participants with confidentiality and anonymity guaranteed. Parental permission for adolescents aged 15-17 years was sought first before the minor's assent was sought.

Results

Socio-demographic information of the sampled population

Before subjecting the data to statistical analysis, the data were subjected to a reliability test using Cronbach's alpha. This produced a reliability of 0.8, hence the data obtained was suitable for subsequent inferential statistics. Table 1 and Figure 1 represent a summary of the socio-demographic characteristics of the study population.

Comprehensive knowledge of HIV prevention

Comprehensive HIV knowledge is high in both counties at 80.3 % in Kericho County compared to 78.2 % in Kakamega County. The majority of the young people were aware that it is possible for a woman infected with HIV to give birth to a child not infected with HIV (83.2%) and that people reduce their chances of having HIV by abstaining from sex (77.0%). Most of the participants did not think that a person can get HIV by sharing food with someone who is infected with HIV (92.5%). They believed that a person cannot get HIV because of witchcraft or other supernatural means (91.9%).



Commonly used HIV prevention strategies

Youths mainly utilized HIV prevention information at 67.7 % followed by condoms at 18.6 % in public health facilities. In future, 17.4% of the youth were willing to use HIV testing services (HTS) with active referrals to lifelong ART for HIV positive.

Condom use uptake

Over 57.2 % of the youth reported using a condom during the last sexual encounter while 39.8 % did not. Fifty-seven per cent of the youth in Kakamega and 53.5 % of the youth in Kericho County reported using condoms. There was no significant difference in condom use in the two counties.

use condoms. The Suggestions to use condoms during sex were made by either the respondents themselves, by their partners or as a joint decision of the two. The association of the suggestion by respondent's gender found that there was a significant association by gender ($\chi^2 = 10.297$, $P = 0.016$). In most of the instances, male respondents themselves suggest the use of condoms for their partners.

HIV testing services uptake

Most of the youths (58.4%) have gone for HIV testing and 81.6% of them were willing to go for HIV testing after this survey. However, 26.2% would not like to share the results of their HIV tests. The majority of the youth were HIV negative (50.5%) and 26.2% of them were not ready to share their HIV result. This indicated an HIV positivity rate of 6.9%. Some of the youths (16.4%) failed to collect their HIV test result.

Concurrent sexual partners

The youths were asked to state whether they were in any sexual relationship; the number of different people they had sex with within the last nine months; if they used condoms when having sex and the number of people they plan to have sex with. The findings revealed that 60.6%

of the youths were in a sexual relationship, 18.8% had sex with two or more different people in the last nine months, 38.0% do not use condoms anytime they had sex and 11.1% of the youth plan to have sex with two or more after this survey.

Level of STIs infection

The majority of the youths have heard of diseases that can be transmitted through sexual intercourse. Most of the youth were aware that HIV (69.5%) and syphilis (64.8%) are the most common diseases transmitted through sexual intercourse. When they experienced STI symptoms, 57.3% of the respondents sought treatment whereas 42.7% did not. The majority of the youth seek treatment within one week (44.2%). Major reasons that led to youths not seeking treatment were; they were not aware that they were sick when they saw the symptoms, they had no money, they did not have time to go to the hospital and the perception that some of the hospitals were unable to treat such diseases. At the time they experienced the symptoms, most of the youths 196 (39.6%) did not inform their sexual partners. However, the majority of both male and female respondents failed to inform their partners, showing no significant variation in deliberate information on infection by gender ($\chi^2 = 0.198$, $P = 0.656$).

Discussion

Comprehensive HIV knowledge was high in both counties at 80.3 % in Kericho County and 78.2 % in Kakamega County. This is higher than the comprehensive HIV knowledge reported in the Kenya Demographic Health survey at 59% (4). The finding showed that the youths were ready to go for HIV testing as indicated by 58.4% who utilized the services. The HIV prevalence among the youth was 6.9%, which was higher compared to the Kenya Population-Based HIV Impact assessment which indicated an HIV prevalence of 1.4 % (6). Youths failed to be tested for HIV mainly because they do not know how to



manage Shock and stress after they get their results. Condom use among the youth was 48.1% which was found to be comparatively lower than in South Africa where condom use among young people aged 15-24 years is 57.9 % (20). The majority of the youth had good knowledge of sexually transmitted infections and identified HIV and syphilis as the most common STIs. This concurs with a study in Ghana among youth(16) which identified HIV as the most common STI. Having multiple concurrent partners increases the risk of STI transmission or acquisition. Over 18.8% of the respondents had sex with two or more different people. This is lower than a study in Malawi (17) where 69.0% of males and 35.4% of females reported multiple sexual partnerships.

Conclusion and Recommendation

Despite the high comprehensive HIV knowledge in both counties at 79.3 %, the youth still engaged in risky sexual behaviour that increased their vulnerability to HIV infection. The majority of the respondents (60.6 %) were in a sexual relationship at baseline. A further 18.8 % had sex with 2 or more partners out of which 38 % did not use condoms and 11.1% plan to have sex with 2 or more partners. Additionally, 18.2 % of the youth reported experiencing unusual sores or itching in their genital area out of which 57.3 % sought treatment for the symptoms. Over 39.6 % did not inform their sexual partners about the symptoms. Despite the high comprehensive HIV knowledge, the youth sampled had low-risk perceptions and still engaged in risky sexual behaviours that increased their exposure to HIV infection. The study will inform the design of an HIV prevention package that is responsive to young people's HIV-related risk sexual behaviour. The study recommends the need to promote safer sexual behaviour among youth through increased access, availability and use of

comprehensive HIV prevention information packages.

Source of funding

This study was funded by RSTMH small grants programme

References

1. **UNAIDS.** *UNAIDS Estimates.* Geneva, Switzerland: UNAIDS, 2020.
2. **ICF.** *The DHS Program.* Rockville, Maryland, USA: ICF, 2015.
3. **MOH.** *Kenya HIV Estimates Report.* Nairobi, Kenya: MOH, 2020
4. **MOH.** *Kenya AIDS Response Progress Report.* Nairobi, Kenya: MOH, 2018
5. **MOH.** *Kenya Demographic and Health Survey.* Nairobi, Kenya: MOH, 2014
6. **MOH.** *Kenya AIDS Indicator Survey Report.* Nairobi, Kenya: MOH, 2012
7. **MOH.** *Kenya Population-based HIV Impact Assessment.* Nairobi, Kenya: MOH, 2019
8. **Sahile, Z., Mekuria, M., and Yared, A.** Comprehensive HIV/AIDS Knowledge and Sexual Behavior among University Students in Ambo, Central Ethiopia: Implication to Improve Intervention, 2015. *Journal of Sexually Transmitted Diseases* 2015(2):6 DOI: 10.1155/2015/890202
9. **S. Karger AG, Basel.** Knowledge of HIV among High School Students in Kuwait. *Med Princ Pract* 2019;28:470-476 DOI: 10.1159/000500307
10. **Kitila Mkumbo.** Assessment of HIV/AIDS knowledge, attitudes and behaviours among students in higher education in Tanzania, *Global Public Health*, 8:10, 1168-1179, doi: 10.1080/17441692.2013.837498
11. **Coolican, H.** Research methods and statistics in psychology, 2004. *4th Ed. Bookpoint*
12. **Suresh, K.P., and Chandrashekara, S.** Sample Size Estimation and Power Analysis for Clinical Research Studies. PubMed, 2012, doi: 10.4103/0974-1208.97779
13. **Israel, G.D.** (1992) Determining Sample Size, 1992. University of Florida Cooperative



- Extension Service, Institute of Food and Agriculture Sciences, EDIS, Florida
14. **Cochran, W. G.** Sampling Techniques. 1963. 2nd Ed. *John Wiley and Sons Inc*, New York, USA. Available from <https://doi.org/10.1002/bimj.19650070312>
 15. **Ntshiq, T., Musekiwa, A., Mlotshwa, M., Mangold, K., Reddy, C., & Williams, S.** Predictors of male condom use among sexually active heterosexual young women in South Africa. *BMC Public Health*, 2018(1), 1137. DOI: 10.1186/s12889-018-6039-8
 16. **Koray MH, Adomah-Afari A, Punguyire D and Naawa, A.** Knowledge of sexually transmitted infections among senior high school adolescents in the Wa Municipality of Ghana. *Global Health Journal*, 6 (2022) 95–101 DOI:10.1016/j.glohj.2022.04.002
 17. **Wilson Chialepeh N. and Sathiyasusuman A.** Associated Risk Factors of STIs and Multiple Sexual Relationships among Youths in Malawi. *PLoS ONE*, 2015 10(8): e0134286. DOI: 10.1371/journal.pone.0134286

APPENDICES: Tables and Figures

Table 1:

Respondents' demographic information

Demographic information	Category	Frequency (N = 495)	Percentage
County	Kericho	165	33.3
	Kakamega	330	66.7
Gender	Male	233	47.1
	Female	262	52.9
Age (Years)	15 – 19	185	37.6
	20 – 24	306	61.8
	None committal	3	0.6
Education level	No formal education	10	2.0
	Primary	58	11.7
	Secondary	113	22.8
	Tertiary	303	61.2
Religion	Non-committal	11	2.2
	Christians	456	92.1
	Muslims	32	6.5
	Others	34	0.6
Marital status	Non-committal	4	0.8
	Married	53	10.7
	Single	400	80.8
	Others	34	6.9
	Non-committal	8	1.6

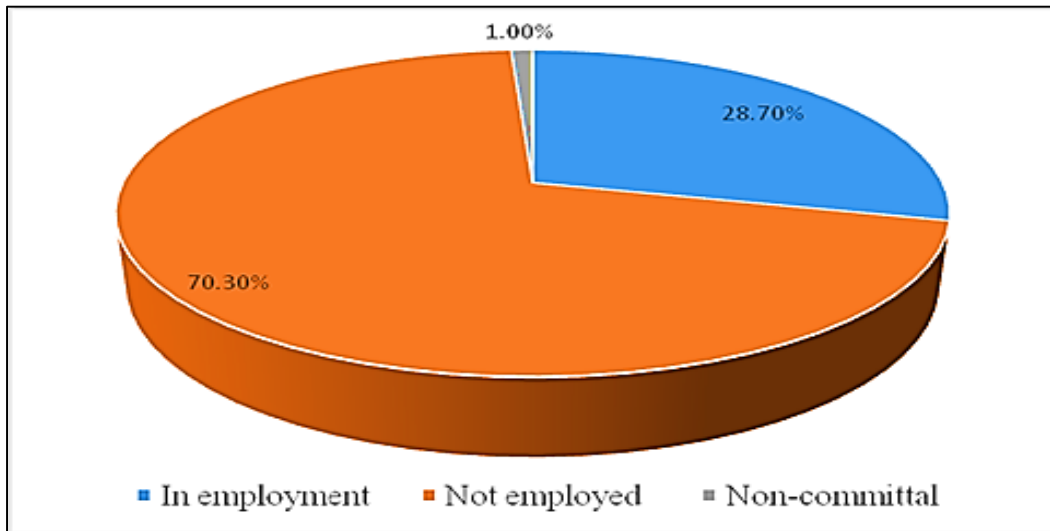


Figure 1:
Respondents' parents' employment status

Table 2:
HIV prevention strategies the youths would be willing to use in future

Strategy	Frequency (N = 495)	Percentage
Information on HIV transmission, abstinence, consistent and correct condom use	315	67.7
HIV testing services (HTS) with active referrals to lifelong ART for HIV positive	86	17.4
Pre-Exposure Prophylaxis(PrEP)	33	6.7
Post violence care	35	7.1
Enrollment in Lifelong ART	28	5.7
PMTCT for pregnant and lactating adolescent girls	40	8.1
Condom promotion and distribution, negotiation skills and facilitated access	92	18.6
Voluntary Medical Male Circumcision (VMMC)	70	14.1
STI screening and treatment	50	10.1
Prevention, diagnostics and treatment of Tuberculosis(TB)	56	11.3
Others	8	1.6

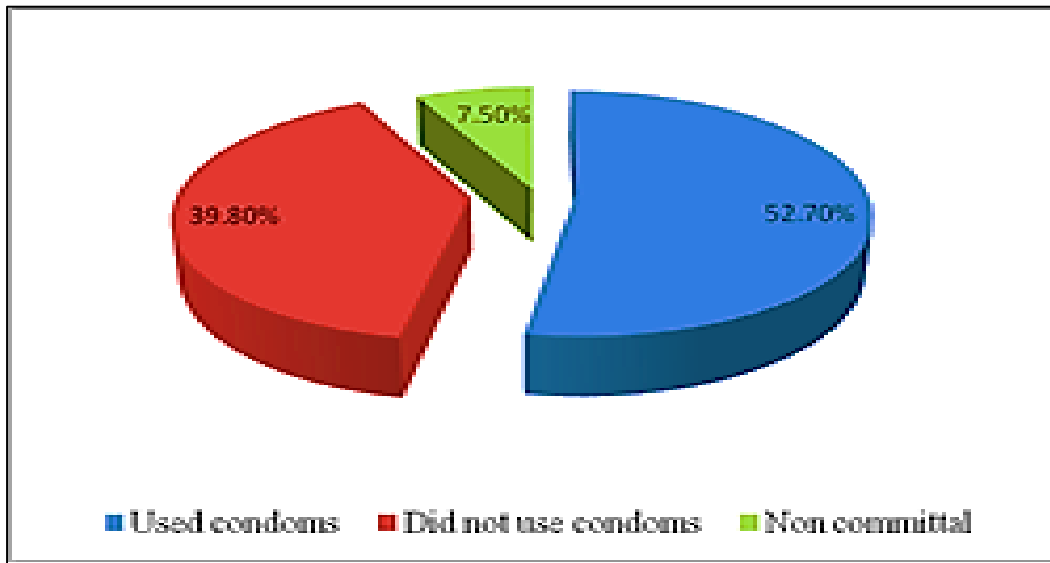


Figure 2:
Use of condoms in the last time the respondents had sex

Table 3:
Suggestion for the use of condoms

	Suggestion for use of condoms				Total
	Self	Partner	Joint decision	Do not remember	
Gender					
Male	90 (42.9%)	51 (24.3%)	40 (19.0%)	29 (13.8%)	210
Female	77 (37.7%)	34 (16.7%)	65 (31.9%)	28 (13.7%)	204
χ^2 - value				10.297	
P- value				0.016	

Table 4:
Youth's Uptake of HIV testing services

Statement	Frequency (N = 495)	Percentage
Have tested for HIV	289	58.4
Tested for HIV in the past nine months	227	45.9
Youths were willing to go for HIV testing in the future after the survey	404	81.6

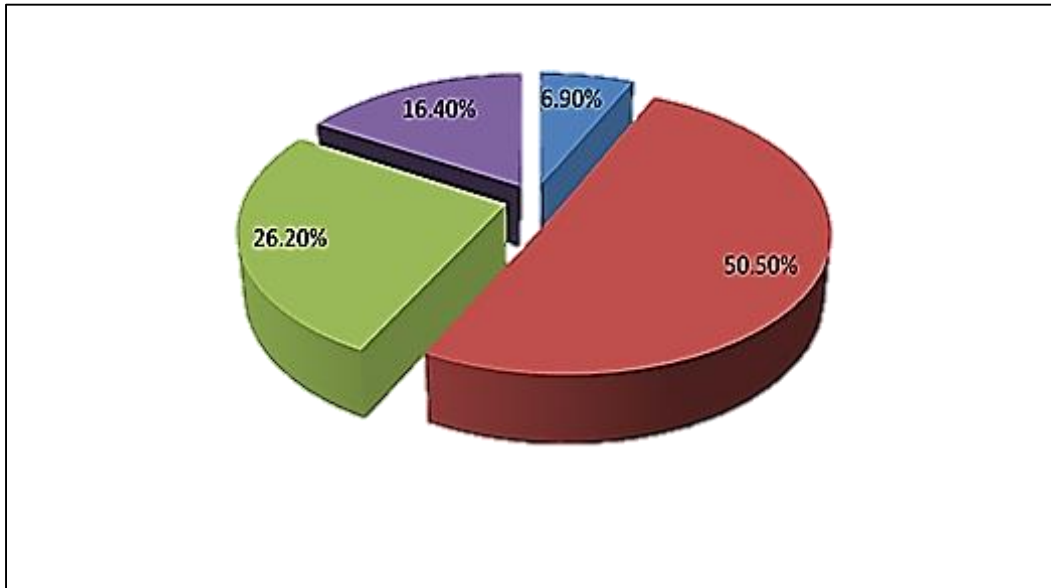


Figure 3:
HIV status of the respondents in the study

Table 5:
Reasons for youths' failure to have HIV test

Reasons	Frequency (N = 495)	Percentage
Afraid of knowing status	94	19.0
Faithfull and so do not need one	74	14.9
Cultural/ religious barrier	13	2.6
Do not know how to manage the shock and stress of knowing the status	101	20.4
Do not see the importance of the test as there is still no cure	28	5.7
Do not know where to take the test	14	2.8
Do not have the resources to take the test	22	4.4
Do not trust confidentiality	18	3.6

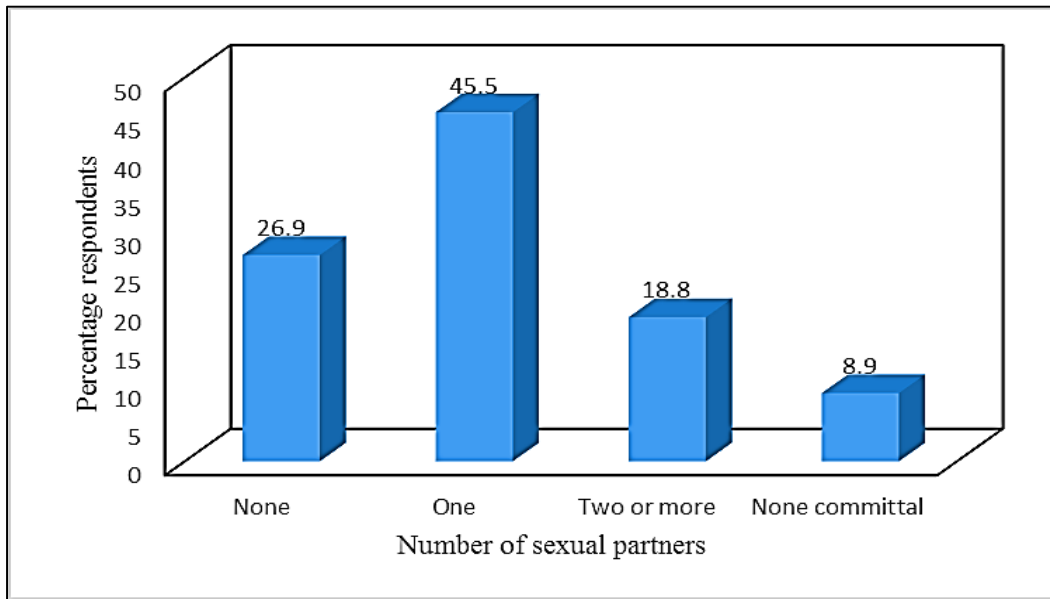


Figure 4:
Concurrent sexual partners in the last nine months

Table 6:
Youths in sexual relationships and condom use among the youth

Statement	In a sexual relation		Non-committal
	Yes	No	
In sexual relationship	300 (60.6%)	155 (31.3%)	40 (8.1%)
Use condoms anytime when having sex	238 (48.1%)	188 (38.0%)	69 (13.9%)

Table 7:
Youth's knowledge of common diseases transmitted through sexual intercourse

Disease	Youths knowledgeable about the disease	Percentage
HIV	344	69.5
Syphilis	321	64.8
Gonorrhea	257	51.9
Chlamydia	66	13.3
Herpes simplex	65	13.1
Others	3	0.6

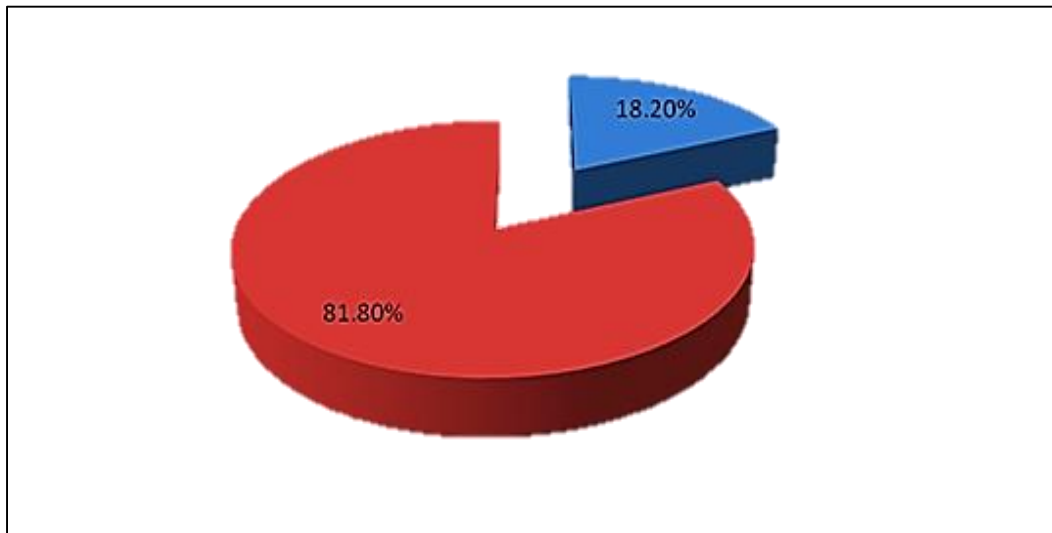


Figure 5:
Youths experiencing unusual sores of the genital area in the last nine months

Table 8:
The duration taken by the youth to seek treatment after experiencing the symptoms

Time	Frequency (N = 104)	Percentage
Within 1 week	46	44.2
More than 1 week	11	10.6
Within 1 month	26	25.0
More than one month	8	7.7
Others	4	3.8
Do not remember	9	8.7

Table 9:
Reasons for not seeking treatment after noticing symptoms

Reasons	Frequency (N = 495)	Percentage
No money	93	18.8
Do not have time to go to the hospital	34	6.9
Hospitals do not treat such diseases	31	6.3
Do not know that he/she was sick	115	23.2
Other reasons	64	12.9

Table 10:
The action of revealing to the partner at the time the youth experienced unusual sores/swellings or itching of genitalia

Gender	Inform the partner	Did not inform partner	Non-committal	Total
Male	75 (32.2%)	98 (42.1%)	60 (25.8%)	233
Female	68 (25.9%)	98 (37.4%)	96 (36.6%)	262
χ^2 value	0.198			
P value	0.656			