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Original Research Article

Contributing factors to continued HIV infection among adolescents and youths aged 15-24 years in Nakuru county, Kenya

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ABSTRACT

Background: Understanding the factors associated with this ongoing risk is crucial for developing targeted interventions to reduce HIV transmission among this vulnerable population. This study aimed to identify the contributing factors to continued HIV infection among adolescents and youths in Nakuru County by examining demographic characteristics, sexual behaviors, awareness of HIV prevention, and other factors related to HIV prevention between 2019 and 2024.
Methods: A cross-sectional study design was employed, involving 226 adolescents and youths aged 15-24 years. The primary outcome was HIV testing status (yes/no). Descriptive statistics were used to summarize demographic and behavioral data. Univariable and multivariable logistic regression analyses were conducted to identify factors associated with HIV testing status and infection risk.
Results: The analysis revealed that age, marital status, sexual history, and awareness of partner's HIV status significantly influenced HIV testing status among participants. Older age was associated with a higher likelihood of HIV testing. Participants who were married were more likely to have been tested for HIV compared to single individuals. Sexual history also played a crucial role, with those who had a history of sexual intercourse being more likely to have been tested for HIV. Awareness of a partner's HIV status was associated with a higher likelihood of testing.
Conclusions: The study identified significant demographic and behavioral factors associated with continued HIV infection risk among adolescents and youths in Nakuru County. Interventions should focus on increasing HIV testing and awareness, especially among younger individuals, those who are single, and those lacking awareness of their partner's status.

Keywords: Barriers, HIV, Prevention strategies

INTRODUCTION

HIV remains one of the most severe public health challenges globally, with sub-Saharan Africa being the epicenter of the epidemic.[1] According to UNAIDS in 2021, approximately 38.4 million people were living with HIV globally by 2020, with sub-Saharan Africa accounting for 70% of the global burden.[2] Kenya, one of the six high-HIV-burden countries in Africa, made significant strides in combating the epidemic. However, adolescents and youths continued to face a disproportionate risk of new HIV infections.[3]

In Kenya, the HIV prevalence rate was estimated at 4.5% in 2021, with approximately 1.5 million adults living with HIV.[4] Despite efforts to reduce the incidence of HIV,

adolescents and young people aged 15-24 years accounted for a significant proportion of new infections.[5] The period from 2016 to 2020 saw a reduction in AIDS-related deaths from 3,853 to 2,196, yet a reversal was observed in 2021, with 2,257 deaths reported among adolescents and youths. Moreover, new HIV infections declined from 35,776 in 2015 to 11,229 in 2020, but an increase to 11,638 was noted in 2021, with 52% of these new infections occurring in individuals aged 15-29 years.

Nakuru County attained city status in December 2021, presenting a unique demographic profile with both urban and rural populations. Despite efforts to curb new infections, the county stagnated in its fight against HIV, with an annual new infection rate of 4,127 and a prevalence rate of 5.3%.[6] The Kenya AIDS Strategic Framework 2014/15-2018/19 identified adolescents and young people as a priority population for the HIV response.[7] However, the continued rise in new HIV infections among this group necessitated an urgent review of the existing prevention strategies.[8]

Despite the implementation of various biomedical and socio-cultural interventions aimed at reducing HIV infections among adolescents and youths, Kenya continued to witness a worrying trend of rising new infections in this demographic. UNAIDS in 2021 estimated that 52% of all new HIV infections in Kenya occurred among adolescents and youths.[9] The uptake of HIV testing, counseling, and antiretroviral therapy (ART) among adolescents was significantly lower compared to adults, signaling the need for targeted adolescent programs.[10] The reversal of gains in reducing new infections highlighted the potential weaknesses in current prevention strategies, particularly in Nakuru County.[11]

This study investigated the factors contributing to the continued rise in HIV infections among adolescents and youths in Nakuru County in correlation with youths knowing their status. By identifying barriers to accessing and utilizing HIV prevention services, the study aimed to provide recommendations for integrated prevention and support mechanisms to address this escalating public health crisis.

METHODS

Research design

This study employed a mixed-methods design, incorporating both quantitative and qualitative approaches. The quantitative aspect involved a cross-sectional study design to assess the prevalence of an outcome or to describe the characteristics of a population at a single point in time. A cross-sectional study provided a snapshot of a population at a particular point in time. This was particularly useful for understanding the current status or prevalence of a condition, behavior, or characteristic within the population. The qualitative component involved focus group discussions (FGDs) and key informant interviews (KIIs) to explore the contributing factors to the continued increase in HIV infections among adolescents and youths. The quantitative component involved analyzing the effectiveness of current HIV prevention strategies.

Study area

The study was conducted in Nakuru County in Kenya, a region with both urban and rural populations From February 26th, 2024, to February 26th, 2025. Nakuru's city status, coupled with its location along the Kenya-Uganda highway, provided a unique setting for exploring the factors contributing to HIV infections among adolescents and youths.

Study population

The study targeted adolescents and youths aged 15-24 years living in the study area and consents to participate in the study area.

Sampling criteria

A convenient random sampling method was employed to select participants from urban and rural wards in Nakuru County. The study involved 226 participants, determined using Fischer's formula based on the 30% HIV prevalence rate in Nakuru County.[12] Convenient sampling offered valuable insights into specific populations, particularly on behaviors, attitudes, and practices that were context-specific.

Data collection and analysis

A total of 226 adolescents and youths were recruited for the study using simple random sample. The participants were asked about their HIV testing history and other behaviors that might contribute to the risk of HIV infection.

Data analysis was conducted using statistical software R-software version 4.2.3. Descriptive statistics were calculated to summarize the demographic characteristics and behavioral patterns of the participants. The primary outcome variable was whether participants had ever tested for HIV (yes/no) as a proxy of continued HIV infection.

For inferential analysis, both univariable and multivariable logistic regression models were employed to identify factors associated with HIV infection. The odds ratios (OR) and 95% confidence intervals (CI) were calculated to assess the strength and direction of the associations between HIV testing status and various predictor variables, such as age, education level, marital status, employment status, sexual behavior, and awareness of HIV prevention.

The univariable analysis assessed each predictor variable individually to determine its association with HIV infection risk. Those variables that showed a significant association ($p<0.05$) in the univariable analysis were included in the multivariable logistic regression model to control for potential confounding factors.

Ethical considerations

Ethical approval for the study was obtained from the Ethics and Social Research Committee (ESRC), NACOSTI, Nakuru County. All participants provided written informed consent, and their participation was voluntary, with the option to withdraw at any time. Anonymity and confidentiality were maintained throughout the study, and COVID-19 protocols were observed during all data collection activities. Data were securely stored and only accessible to authorized personnel to maintain privacy and confidentiality.

RESULTS

The 226 enrolled participants had a median age of 22 years, with an interquartile range between 13 and 25 years, indicating a relatively young population. The gender distribution was nearly equal, with females making up 51% of the sample and males 49%. Educational attainment varied, with over half (52%) of the participants having completed secondary school, while 26% had attended college and 10% had only completed primary school. A small fraction, 1.8%, had never gone to school. Regarding marital status, the majority were single (76%), followed by married individuals (22%), with very few participants being divorced (1.3%) or widowed (0.9%). Employment status was diverse, with 27% of participants being unemployed, 26% self-employed, 25% students, and 21% employed in some capacity.

The results highlight both the strengths and gaps in HIV knowledge, risk perception, and behaviors among participants. While awareness is generally high, misconceptions and risky behaviors persist, pointing to the need for continuous education and intervention strategies. Additionally, the impact of socioeconomic factors on HIV risks and the experience of stigma emphasize the nature of HIV prevention and the importance of addressing these broader social determinants.

HIV prevention knowledge and perceptions

Awareness of HIV prevention methods was relatively high, with 88% of participants reporting awareness. However, misconceptions about ineffective prevention methods were prevalent. For instance, 77% mistakenly believed that sharing food with someone who has HIV could prevent the disease, while only 12% correctly identified condom use as a preventive measure. Knowledge of common AIDS symptoms was mixed, with 41% correctly identifying frequent severe infections as a symptom, but a significant portion (28%) were unsure of any symptoms.

Sources of HIV information

Participants primarily received HIV-related information from educational institutions (31%) and healthcare providers (30%). Social media played a notable role, with 20% citing it as a source, while traditional media such as TV, radio, and newspapers were less commonly used (11%).

Perception of HIV risk

When asked about their perceived risk of contracting HIV, 26% of participants considered themselves at high risk, while 30% assessed their risk as moderate. Interestingly, 23% did not perceive any risk of HIV contraction. In terms of their friends' risk, opinions were split: 25% believed some of their friends were at risk, while 24% thought most of their friends were at risk. A significant number (21%) were unsure about their friends' risk.

HIV risk behaviors

The study revealed concerning behaviors related to HIV risk. A large majority (89%) of participants reported having unprotected sex, and 78% had multiple sexual partners. Additionally, 74% admitted to sharing needles or syringes, further heightening their risk of HIV transmission. These behaviors underscore the need for targeted interventions to reduce risky practices.

HIV testing and sexual health

Regular HIV testing was reported by 33% of participants, while 22% tested occasionally, and 15% had never tested. Among those with a sexual history, 78% had engaged in sexual intercourse, with varying levels of protection use: 36% used protection sometimes, 29% always, and 19% never. Reasons for using protection included preventing HIV (34%), preventing pregnancy (29%), and preventing sexually transmitted diseases (22%).

Contribution of socioeconomic factors to HIV risks

Participants expressed varied opinions on how education, income, food security, and housing security contribute to HIV risks. Education was seen as strongly contributing to HIV prevention by 31% of participants, while 33% and 35% believed income and food security, respectively, contributed to HIV risks. Similarly, 37% identified housing security as a contributing factor.

Table 1: Contributing factors to continued HIV infection among adolescents and youths aged 15-24 years in Nakuru County, Kenya.

Characteristics	N	n=226[1] (%)
Ever tested for HIV	226	
No		55 (24)
Prefer not to say		6 (2.7)
Yes		165 (73)
Age	221	22.00 (13.00, 25.00)
Education level	222	
primary school		23 (10)
secondary school		118 (53)
college		59 (27)
university		22 (9.9)
Marital status	221	
single		171 (77)
married		50 (23)
Employment status	226	
Employed		48 (21)
Self employed		59 (26)
Student		57 (25)
Unemployed		62 (27)
Aware of HIV prevention	226	
No		16 (7.1)
Partially		12 (5.3)
Yes		198 (88)
Sexual intercourse history	215	176 (82)
Use of protection	191	
Always		66 (35)
Never		44 (23)
Sometimes		81 (42)
Having unprotected sex	225	201 (89)
Having multiple sexual partners	225	175 (78)
Tattoos/piercings with unsterilized equipment	225	126 (56)
Reason for using protection	226	
		77 (34)
To prevent HIV only		65 (29)
To prevent pregnancy		50 (22)
To prevent STDS		34 (15)
Aware of partner HIV status	226	
No		59 (26)
Not applicable		53 (23)
not sure		14 (6.2)
Yes		100 (44)
HIV testing challenges	226	
No		173 (77)
Not sure		12 (5.3)
Yes		41 (18)
Reason for never use of protection	226	
Abstinence and virginity		11 (4.9)
Belief in low risk		2 (0.9)
Lack of interest in sexual activity		1 (0.4)
Lack of necessity		2 (0.9)
N/a or no reason given		187 (83)
Negative perceptions of protection		3 (1.3)
Trust in partner/relationship		20 (8.8)

[1]median (min - max).

HIV testing challenges and stigma

A majority (77%) of participants did not face challenges in getting tested for HIV, though 18% did experience challenges. When it came to HIV-related stigma, 70% reported not having experienced it, while 25% had encountered stigma, highlighting the ongoing issue of discrimination against those living with or at risk of HIV.

Univariate and multivariate analyses

The analysis explored factors influencing HIV testing among adolescents and youths aged 15-24 years in Nakuru County, Kenya. It compared individuals who had been tested for HIV with those who had not, using both univariable and multivariable logistic regression analyses to identify significant predictors.

Table 2: Contributing factors to continued HIV infection among adolescents and youths aged 15-24 years in Nakuru County, Kenya.

Ever tested for HIV		Yes	No	OR (univariable)	OR (multivariable)
Age in years	Mean (SD)	21.9 (2.0)	20.2 (2.3)	0.70 (0.59-0.81, p<0.001)	0.90 (0.67-1.20, p=0.475)
Education level	Primary school	17 (73.9)	6 (26.1)	-	-
	Secondary school	81 (69.8)	35 (30.2)	1.22 (0.46-3.63, p=0.695)	1.21 (0.19-10.17, p=0.845)
	College	47 (81.0)	11 (19.0)	0.66 (0.22-2.18, p=0.480)	1.29 (0.15-14.32, p=0.821)
	University	19 (90.5)	2 (9.5)	0.30 (0.04-1.50, p=0.170)	0.73 (0.02-20.43, p=0.858)
Marital status	Single	118 (70.7)	49 (29.3)	-	-
	Married	45 (91.8)	4 (8.2)	0.21 (0.06-0.56, p=0.005)	0.44 (0.06-2.37, p=0.366)
Employment status	Employed	40 (83.3)	8 (16.7)	-	-
	Student	35 (62.5)	21 (37.5)	3.00 (1.22-8.00, p=0.021)	0.87 (0.13-5.50, p=0.887)
	Unemployed	48 (77.4)	14 (22.6)	1.46 (0.57-3.98, p=0.443)	0.96 (0.19-5.10, p=0.960)
	self employed	42 (77.8)	12 (22.2)	1.43 (0.53-3.99, p=0.482)	3.17 (0.65-18.06, p=0.167)
Aware of HIV prevention	No	10 (62.5)	6 (37.5)	-	-
	Partially	4 (40.0)	6 (60.0)	2.50 (0.51-13.64, p=0.268)	7.16 (0.32-263.99, p=0.236)
	Yes	151 (77.8)	43 (22.2)	0.47 (0.17-1.46, p=0.171)	0.49 (0.07-4.13, p=0.487)
Having multiple sexual partners	No	29 (59.2)	20 (40.8)	-	-
	Yes	135 (79.4)	35 (20.6)	0.38 (0.19-0.75, p=0.005)	0.47 (0.12-1.84, p=0.277)
Tattoos/piercings with unsterilized equipment	No	64 (68.1)	30 (31.9)	-	-
	Yes	100 (80.0)	25 (20.0)	0.53 (0.29-0.99, p=0.046)	0.84 (0.24-2.83, p=0.774)
Sexual intercourse history	No	16 (41.0)	23 (59.0)	-	-
	Yes	147 (83.5)	29 (16.5)	0.14 (0.06-0.29, p<0.001)	0.12 (0.01-0.90, p=0.041)
Use of protection	Always	56 (84.8)	10 (15.2)	-	-
	Never	31 (72.1)	12 (27.9)	2.17 (0.84-5.70, p=0.109)	0.42 (0.01-16.59, p=0.642)
	Sometimes	66 (81.5)	15 (18.5)	1.27 (0.54-3.14, p=0.589)	2.97 (0.73-13.49, p=0.138)
Reason for using protection		41 (57.7)	30 (42.3)	-	-
	To prevent HIV only	52 (80.0)	13 (20.0)	0.34 (0.15-0.72, p=0.006)	0.54 (0.01-17.01, p=0.719)
	To prevent pregnancy	41 (82.0)	9 (18.0)	0.30 (0.12-0.69, p=0.006)	0.17 (0.00-4.70, p=0.282)
	To prevent STDS	31 (91.2)	3 (8.8)	0.13 (0.03-0.42, p=0.002)	0.04 (0.00-1.49, p=0.081)
Aware of partner HIV status	No	35 (60.3)	23 (39.7)	-	-
	Not applicable	26 (54.2)	22 (45.8)	1.29 (0.59-2.81, p=0.522)	0.94 (0.16-5.21, p=0.940)
	Yes	93 (93.0)	7 (7.0)	0.11 (0.04-0.28, p<0.001)	0.14 (0.03-0.59, p=0.010)
	not sure	11 (78.6)	3 (21.4)	0.42 (0.09-1.50, p=0.212)	1.59 (0.17-11.29, p=0.654)
HIV testing challenges	No	123 (73.2)	45 (26.8)	-	-
	Not sure	4 (36.4)	7 (63.6)	4.78 (1.38-18.99, p=0.016)	13.43 (1.92-121.42, p=0.012)
	Yes	38 (92.7)	3 (7.3)	0.22 (0.05-0.64, p=0.014)	0.17 (0.01-1.25, p=0.139)

OR = Odds Ratio, HIV = Human Immunodeficiency Virus, SD = Standard Deviation.

Age was a notable factor in HIV testing. Individuals who had been tested for HIV had an average age of 21.9 years (SD=2.0), compared to 20.2 years (SD=2.3) for those who had not been tested. The univariable analysis showed that older age was associated with a decreased likelihood of being untested (OR=0.70, 95% CI: 0.59-0.81, p<0.001). However, this association was not significant in the multivariable analysis, where the odds ratio was 0.90

(95% CI: 0.67-1.20, p=0.475), indicating no significant effect.

Education level also played a role, though it was not statistically significant in the analyses. Among those tested for HIV, 73.9% had attended primary school, 69.8% had completed secondary school, 81.0% had attended college, and 90.5% were university graduates. In contrast, among those who had not been tested, 26.1% had attended primary school, 30.2% had completed secondary school, 19.0% had attended college, and 9.5% were university graduates. Despite these differences, the univariable and multivariable analyses did not show significant associations between education level and HIV testing.

Marital status showed a clear disparity in testing rates. Of those who had been tested for HIV, 70.7% were single, while 29.3% were married. Among those who had not been tested, 29.3% were single and 91.8% were married. The univariable analysis revealed that married individuals were less likely to be untested (OR=0.21, 95% CI: 0.06-0.56, p=0.005), but this association was not significant in the multivariable analysis (OR=0.44, 95% CI: 0.06-2.37, p=0.366).

Employment status also influenced HIV testing. Among those tested, 83.3% were employed, 62.5% were students, 77.4% were unemployed, and 77.8% were self-employed. In comparison, among those who had not tested, 16.7% were employed, 37.5% were students, 22.6% were unemployed, and 22.2% were self-employed. The univariable analysis showed that students were more likely to be untested (OR=3.00, 95% CI: 1.22-8.00, p=0.021), though this association was not significant in the multivariable analysis (OR=0.87, 95% CI: 0.13-5.50, p=0.887).

Awareness of HIV prevention was another key factor. Of those tested, 77.8% had full awareness of HIV prevention, 40.0% had partial awareness, and 62.5% had no awareness. Conversely, among those who had not been tested, 22.2% had full awareness, 60.0% had partial awareness, and 37.5% had no awareness. The univariable analysis suggested that partial awareness of HIV prevention was associated with a higher likelihood of being untested (OR=2.50, 95% CI: 0.51-13.64, p=0.268), but this association was not significant in the multivariable analysis (OR=7.16, 95% CI: 0.32-263.99, p=0.236).

Having multiple sexual partners appeared to be a factor in HIV testing. Among those tested, 79.4% reported having multiple sexual partners, compared to 59.2% of those who had not been tested. The univariable analysis showed that those with multiple sexual partners were less likely to be untested (OR=0.38, 95% CI: 0.19-0.75, p=0.005), though this association was not significant in the multivariable analysis (OR=0.47, 95% CI: 0.12-1.84, p=0.277).

The use of unsterilized equipment for tattoos or piercings also influenced testing. Among those tested, 80.0% had used unsterilized equipment, compared to 68.1% of those who had not been tested. The univariable analysis suggested that those using unsterilized equipment were less likely to be untested (OR=0.53, 95% CI: 0.29-0.99, p=0.046), but this effect was not significant in the multivariable analysis (OR=0.84, 95% CI: 0.24-2.83, p=0.774).

Sexual intercourse history was a significant predictor. Of those tested for HIV, 83.5% had a history of sexual intercourse, compared to 41.0% of those not tested. The univariable analysis indicated a strong association with the likelihood of being untested (OR=0.14, 95% CI: 0.06-0.29, p<0.001), and this effect remained significant in the multivariable analysis (OR=0.12, 95% CI: 0.01-0.90, p=0.041).

Protection use patterns varied. Among those tested, 84.8% used protection always, 81.5% used it sometimes, and 72.1% used it never. Among those who had not been tested, 15.2% used protection always, 18.5% used it sometimes, and 27.9% used it never. The univariable analysis suggested that those who used protection sometimes were less likely to be untested (OR=1.27, 95% CI: 0.54-3.14, p=0.589), with no significant effect in the multivariable analysis (OR=2.97, 95% CI: 0.73-13.49, p=0.138).

Reasons for using protection also impacted testing. Of those tested, 80.0% used protection to prevent HIV only, 82.0% to prevent pregnancy, and 91.2% to prevent STDs. In comparison, among those not tested, 20.0% used protection to prevent HIV only, 18.0% to prevent pregnancy, and 8.8% to prevent STDs. The univariable analysis showed that using protection to prevent HIV only was associated with a decreased likelihood of being untested (OR=0.34, 95% CI: 0.15-0.72, p=0.006), though this effect was not significant in the multivariable analysis (OR=0.54, 95% CI: 0.01-17.01, p=0.719).

Awareness of a partner's HIV status also influenced testing. Among those tested, 93.0% were aware of their partner's HIV status, compared to 60.3% of those not tested. The univariable analysis showed a strong association with the likelihood of being untested (OR=0.11, 95% CI: 0.04-0.28, p<0.001), which remained significant in the multivariable analysis (OR=0.14, 95% CI: 0.03-0.59, p=0.010).

Finally, challenges in HIV testing were reported differently. Among those tested, 92.7% reported no challenges, while 73.2% of those not tested reported no challenges. The univariable analysis indicated that those reporting testing challenges were more likely to be untested (OR=0.22, 95% CI: 0.05-0.64, p=0.014), though this association was not significant in the multivariable analysis (OR=0.17, 95% CI: 0.01-1.25, p=0.139).

In summary, the analysis highlighted that age, marital status, employment status, awareness of HIV prevention, having multiple sexual partners, use of unsterilized equipment, sexual intercourse history, and awareness of a partner's HIV status significantly impacted the likelihood of HIV testing among adolescents and youths in Nakuru County. These factors should be considered in strategies to improve HIV testing and prevention efforts in this population.

DISCUSSION

This study, conducted among 226 adolescents and youths aged 15-24 years in Nakuru County, Kenya, revealed a relatively high lifetime HIV testing uptake of 73%, which is encouraging compared to broader regional trends. This finding aligns with a multi-country analysis done in 2026 in sub-Saharan Africa, where HIV testing prevalence among adolescent girls and young women averaged 63%, with Kenya performing better than many peers.[1] This echoes earlier observations in Kenya that testing coverage among adolescents remains suboptimal relative to adults, with barriers such as stigma, low perceived risk, and access issues continuing to hinder progress.[13]

Individuals with a history of sexual intercourse had substantially higher odds of testing, consistent with patterns where sexual activity prompts health-seeking behavior. Similarly, awareness of a partner's HIV status strongly predicted testing, highlighting the relational dimension of prevention. These results corroborate findings from other Kenyan and SSA studies, where knowledge of partner status, multiple sexual partners, and STI history are linked to higher testing uptake.[14]

The study documented high levels of risky sexual behaviors, 89% reported unprotected sex and 78% multiple sexual partners despite 88% awareness of HIV prevention methods. This disconnect between knowledge and behavior is a recurring theme in the literature on Kenyan and SSA youth. Studies in Western Kenya and other high-burden areas similarly report prevalent unprotected sex, age-disparate relationships, and concurrency as drivers of continued transmission in this population.[15]

Trends toward higher testing with older age, marriage, and certain employment or education levels partially align with national and regional data. Older youths, 20-24 years and those in unions or with higher education or wealth showed higher testing odds. This nuance adds to the evidence that while socio-demographic factors matter, proximal behavioral and interpersonal determinants may be more actionable targets.[16]

Socioeconomic influences such as education, income, food and housing security were perceived by participants as contributing to HIV risk, consistent with structural drivers emphasized in Kenyan county plans and SSA reviews.

CONCLUSION

In conclusion, this study addressed the key concern of the major causes of HIV in the youth population by identifying the main barriers to accessing and utilizing prevention services, age, where older individuals were unlikely to be tested, level of education, marital status, and employment status. This study has contributed to understand the behavioral changes in adolescents and how based they can be educated and monitored to reduce the transmission rates of HIV in the Kenyan population.

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REFERENCES

1. Kharsany AB, Karim QA. HIV infection and AIDS in sub-Saharan Africa: current status, challenges and opportunities. Open AIDS J. 2016;10:34.
2. Rosenberg NE, Shook-Sa BE, Liu M, Stranix-Chibanda L, Yotebieng M, Sam-Agudu NA, et al. Adult HIV-1 incidence across 15 high-burden countries in sub-Saharan Africa from 2015 to 2019: a pooled analysis of nationally representative data. Lancet HIV. 2023;10(3):e175-85.
3. Govender K, Masebo WG, Nyamaruze P, Cowden RG, Schunter BT, Bains A. HIV prevention in adolescents and young people in the Eastern and Southern African region: a review of key challenges impeding actions for an effective response. Open AIDS J. 2018;12:53.
4. Otara DN, Chebor AK, Raballah E. Influence of HIV/AIDS care and support services accessibility on utilization among HIV infected adults in Baringo County, Kenya. Masinde Muliro University of Science and Technology Research Archive. 2024.
5. Khalifa A, Stover J, Mahy M, Idele P, Porth T, Lwamba C. Demographic change and HIV epidemic projections to 2050 for adolescents and young people aged 15-24. Glob Health Act. 2019;12(1):1662685.
6. Buzarquis VG. Epidemiological dynamics of Tuberculosis within the prison population and the community. Universitat de Barcelona. 2024.
7. Ajayi AI, Awopegba OE, Adeagbo OA, Ushie BA. Low coverage of HIV testing among adolescents and young adults in Nigeria: Implication for achieving the UNAIDS first 95. PloS One. 2020;15(5):e0233368.
8. Cheuk E, Isac S, Musyoki H, Pickles M, Bhattacharjee P, Gichangi P, et al. Informing HIV prevention programs for adolescent girls and young women: a modified approach to programmatic

mapping and key population size estimation. JMIR Public Health Surveill. 2019;5(2):e11196.
9. Govender K, Poku NK, Armstrong R, George G. Epidemiology of HIV among adolescents and young people in the Eastern and Southern African region: what does the data tell us. InPreventing HIV among young people in Southern and Eastern Africa. Routledge; 2020:11-30.
10. Jopling R, Nyamayaro P, Andersen LS, Kagee A, Haberer JE, Abas MA. A cascade of interventions to promote adherence to antiretroviral therapy in African countries. Curr HIV/AIDS Rep. 2020;17:529-46.
11. Kariuki RG. Impact of guidance programme on enhancing risk behaviour change among youth living with HIV/AIDS in Nakuru county, Kenya. Kabarak University. 2017.
12. Juma MA. Factors influencing adherence to antiretroviral therapy among the Youth attending Rift valley Provincial General Hospital Nakuru County, Kenya: St Paul's University; 2019.
13. Okeke-Obayemi DO, Alawode OA, Okeke SR, Mwaniki SW, Mabhala A, Mullens AB, et al. Prevalence and determinants of HIV testing among adolescent girls and young women in 28 sub-Saharan African countries. BMC Public Health. 2026;26(1):164.
14. Cheruiyot KC. Barriers to utilization of institutional voluntary HIV testing and counselling services among students aged 18-24 in selected Kenyan Public Universities. JKUAT-COHES. 2022.
15. Mudhune V. Uptake and acceptability of oral HIV self testing in the context of assisted partner services in Western Kenya: a mixed-methods analysis. Jomo Kenyatta University of Agriculture and Technology. 2025.
16. Oulo BA. Effect of sexual behaviour on the spatial distribution of HIV among Kenyan youth in 2003 and 2008. University of the Witwatersrand, Johannesburg. 2018.
17. Okoye HU. Intersecting social statuses, health inequities, and macro-social influences on HIV risk behaviour among adolescents in sub-Saharan Africa: A structural determinants exploration. University of British Columbia. 2024.

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