ANALYSIS OF PREVALENCE AND HIV RISK FACTORS AMONG ADOLESCENTS AND YOUNG PEOPLE IN KISUMU AND HOMA BAY COUNTIES, KENYA

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A Thesis Submitted to the Graduate School in Partial Fulfilment of the Requirements for the award of Master of Arts Degree in Gender, Women and Development Studies of Egerton University

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DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented in this university or any other for the award of a degree.

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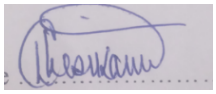

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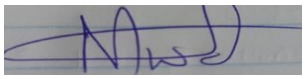

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DEDICATION

This thesis is dedicated to my family, whose love, prayers, and unwavering support have been my anchor throughout this journey.

It is also dedicated to my parents, for nurturing my curiosity and resilience, and my friends and mentors, for your encouragement and wisdom.

To the HIV and feminist civil society in Kenya, whose tireless advocacy, courage, and commitment to advancing the rights and health of our communities continue to inspire me to make concrete changes in the response.

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I honour the HIV and feminist civil society movement in Kenya for your inspiration, resilience, advocacy, and vision of a stigma-free, equitable future. Special thanks to the County Health Departments of Kisumu and Homa Bay, the youth-led organizations, and the young people who participated in this study.

To every young person whose life is touched by the issues in this thesis, I hope this piece of helps in enriching your quality of life.

Most of all, I am grateful to God Almighty for granting me the grace, favour and strength and wisdom to accomplish this huge academic milestone.

ABSTRACT

This study explored the extent to which adolescents and young people aged 15-24 have been affected by the HIV epidemic in Homa Bay and Kisumu counties, Kenya. Both Homa Bay and Kisumu are among the top five counties with the highest HIV prevalence in Kenya, together with Siaya, Migori, and Busia. In 2018, HIV prevalence was 20.7% in Homa Bay and 16.3% in Kisumu. Young people, especially adolescent girls and young women, remain highly vulnerable due to various intersecting social, economic, cultural and behavioural influences. The study aimed to establish the HIV prevalence among this age group, identify the major risk factors driving infection between both genders, and assess how effective the current existing HIV prevention programs are, to guide more focused and sustainable interventions in the two regions. A total of 118 participants were selected for this study based on Cochrane's formula, using Kenya's HIV prevalence rate of 4%. A mixed-methods approach, combining both quantitative data from county health records and a structured survey involving 118 respondents (64 AGYW and 54 ABYM) was used. The qualitative bits were also obtained from four focus group discussions held and three key informant interviews. The results from the questionnaires were entered into data analysis software and were processed to produce table frequencies and percentages, whereas the verbal responses were transcribed, coded and analysed thematically to highlight behavioural and structural factors shaping risk patterns. The findings of the study indicated a gender imbalance in HIV burden, with AGYW, particularly those aged 20-24, recording higher infection rates than the boys. From this study, the identified risk factors for AGYW included economic hardship, limited access to higher education, intergenerational and transactional relationships, gender-based violence, and reduced power in sexual negotiation. For ABYM, the most outstanding risk factors were the social pressures tied to masculinity, substance use, and their poor health-seeking behaviour. The results also proved that HIV among adolescents in the two counties remains exceedingly high and different between the two genders despite the interventions put in place. To solve this, the HIV response requires integrated approaches that use both biomedical interventions with economic empowerment, gender violence response, youth-friendly services and active community participation. Sustainable solutions should aim to reduce economic vulnerability, empower young women, involve young men and enhance accessibility and cultural suitability of prevention services to curb new infections in HIV endemic areas.

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LIST OF ABBREVIATIONS AND ACRONYMS

ABYM	Adolescent Boys and Young Men
AGYW	Adolescent Girls and Young Women
AYP	Adolescents and Young People
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
CDC	Centers for Disease Control and Prevention
CSE	Comprehensive Sexual Education
FGD	Focus Group Discussion
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
MOH	Ministry of Health
NACC	National AIDS Control Council
NGO	Non-Governmental Organization
NSDCC	National Syndemic Diseases Control Council (formerly NACC)
PEP	Post-Exposure Prophylaxis
PEPFAR	The US President's Emergency plan For AIDS Relief
PrEP	Pre-Exposure Prophylaxis
SDG	Sustainable Development Goals
SSA	Sub-Saharan Africa
SEM	Socio-Ecological Model
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund

CHAPTER ONE

INTRODUCTION

1.1 Background information

According to the United Nations Programme on HIV/AIDS (UNAIDS) epidemiological estimates for 2023, Kenya has one of the highest HIV prevalence rates in the world among adolescents and young people aged 15 – 24, with an overall prevalence of 4.0% (UNAIDS, 2024). While an HIV incidence rate within this age group is generally high, adolescent girls and young women in the region bear the brunt of the epidemic (Mhlanga *et al*., 2023). Just like many other countries in Sub-Saharan Africa, Kenya continues to experience relatively high rates of HIV infection, with the majority of those affected being the youth. This is an important subject of interest as far as public health is concerned because it affects the structural, cultural, societal, and economic factors driving vulnerability to HIV infection. These constantly high infection rates among the youth, particularly AGYW, compel a deeper analysis of historical background, drifts in epidemiology, and structural issues that contribute to the persistence of the epidemic.

More than 4 decades after the first case of HIV was reported, the African continent remains the hardest-hit continent by the HIV pandemic, with the East and Southern Africa region recording 21 million people living with HIV in 2024. Kenya alone is home to 1.3 million of these cases (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2025).

In Kenya, the HIV epidemic became established in the mid-1980s, while in the early 1990s, the country faced a rapidly growing rate of the spread of HIV infection (Ngo *et al.,* 2012). This situation continued to deteriorate through the late 1990s, with prevalence reaching a peak of about 10% of the adult population by 2000 (Simat, 2021). Throughout the epidemic, Kenya has been able to reduce HIV prevalence rates by over half with the prevalence rate standing at 4.0% as of 2023. This was done through rigorous public health interventions, although cases are still high and especially prevail among the younger generation, a continuously worrying trend. Whereas antiretroviral therapy, introduced in the early 2000s, has helped a great deal in improving health outcomes and reducing deaths associated with HIV infection, new infections among young people aged 15-24 years still occur at very high rates, especially among AGYW.

The estimated national HIV prevalence rate among adolescents aged 15–19 is 1.7%, while that of young adults aged 20–24 is 3.4% (UNAIDS, 2024). In 2024, young people between the ages of 15-24 accounted for 32% of the new HIV infections in Kenya (UNAIDS, 2025).

In light of gender discrepancies, there are conspicuous differences that arise, clearly depicting that young women are more vulnerable compared to their male counterparts. For instance, the prevalence of HIV among the AGYW is nearly four times higher than that of their male peers (MOH, 2021). This replicates similar findings from other research and studies done across sub-Saharan Africa, which show that young women and girls face a far more serious risk of contracting HIV compared to boys and young men (Govender *et al*., 2020). Risk factors that increase their risk of HIV infection include early marriage, gender-based violence, economic inequality, and limited access to health care and education (Ranganathan *et al*., 2022). Potential responses to the HIV scourge must consider these systemic challenges.

The impact of HIV on the population of Kenya is intricate: it is not only on the individual, family, community, and to the national level. Human Immunodeficiency Virus-related stigma and discrimination still exist in most parts of the country, resulting to social seclusion, poor mental health, and barriers in accessing healthcare services (Ng'eno *et al*., 2018).

Among young men, the rate of HIV infection is lower compared to that of young women. This disparity is linked with social expectations, a high population of females, and the low use of HIV testing services. Many young men face challenges in getting treatment and care. Things are even worse in rural areas where most young men with HIV live. As a result, many suffer long-term effects such as shorter life spans, high mortality rates, and low productivity. Young people living with HIV also struggle to form stable relationships or families. A positive HIV status often stands in the way of marriage, parenthood, and social belonging. To change this, it is important to address wider social inequalities. These inequalities increase the risk of getting or spreading HIV among adolescents and young adults in Kenya. Prevention efforts should focus on fixing root causes like poverty, gender inequality, and lack of access to healthcare and education. Tackling these challenges helps create an environment that supports HIV prevention and proper care.

This study focused on Homa Bay and Kisumu counties. These two are among the five counties with the highest HIV rates in Kenya, along with Busia, Siaya, and Migori. In 2018, Homa Bay had the highest HIV prevalence rate of 20.7%, while Kisumu recorded 16.3%. The study assessed the HIV rates among adolescents aged 15 to 24 years. It compared adolescent girls and young women to adolescent boys and young men. By examining these gender differences, the research explored the main causes of disparity. It aimed to help

understand the social, behavioural, and structural factors that increase HIV risk factors among this age group.

1.2 Statement of the problem

The HIV response in Kenya is characterised by different programs such as the Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) initiative, which has focused on supporting adolescent girls and young women holistically. However, HIV infection rates among young women are still higher than those of young men. This shows that there are deeper issues that must be understood to make these programs more effective. Current information on HIV infection and prevalence is often broad and scattered. This makes it difficult to get clear, detailed, and gender-specific data at the community level for this age group. Notably, much attention has been given to adolescent girls and young women, leaving behind the adolescent boys and young men, and the potential risk factors to HIV infection have not been fully explored. This study compared the prevalence rates and risk factors contributing to HIV infection among AGYW and ABYM in the two counties, Homa Bay and Kisumu, with a high HIV prevalence in Kenya. This study sought to analyse the HIV prevalence and the underlying socio-economic factors to generate localized data on HIV prevalence, risk factors, and programme efficacy.

1.3 Objectives

1.3.1 General objective

To assess the prevalence rates and risk factors contributing to HIV transmission among adolescents and youth to inform targeted prevention strategies in Kenya.

1.3.2 Specific objectives

i. To determine the prevalence of HIV among adolescents and young people in Kisumu and Homa Bay Counties in Kenya.
ii. To identify the risk factors contributing to HIV prevalence among adolescents and young people in Kisumu and Homa Bay Counties in Kenya.
iii. To investigate the effectiveness of current HIV prevention strategies among Adolescents and Young People in Kisumu and Homa Bay Counties in Kenya.

1.4 Research questions

i. What are the prevalence rates of HIV among adolescents and young people in Kisumu and Homa Bay Counties in Kenya?

ii. What are the risk factors contributing to HIV prevalence among adolescents and young people in Kisumu and Homa Bay Counties in Kenya?

iii. How effective are the current HIV prevention strategies among adolescents and young people in Kisumu and Homa Bay Counties in Kenya?

1.5 Justification

The study was critical towards improving the body of evidence in advancing the knowledge base on HIV risk factors. It facilitates the understanding of the variables contributing to high HIV infection rates in the two counties, Kisumu and Homa bay. The differences show that adolescent girls and young women (AGYW) have higher prevalence rates than adolescent boys and young men (ABYM). This underscores the need to address specific vulnerabilities, which include cultural norms, economic inequalities, and a lack of healthcare services. This study used a comparative analysis to bring forth factors resulting in higher incidence rates in AGYW than their male counterparts. Current approaches, in many cases miss or inadequately address specific drivers relevant to the AGYW. These drivers include gender-based violence, early sexual debut, and power imbalance within relationships. The study brought out the roles played by both societal and behavioural factors that drive higher rates of infection among the AGYW. The findings of this study shall inform the development of more efficient prevention strategies that will help inform Kenya's efforts towards meeting international goals. For instance, the UNAIDS 95-95-95 targets, which aim at having 95% of all people living with HIV know their status by 2030. Additionally, 95% of those diagnosed will receive sustained antiretroviral therapy. Finally, 95% of the people receiving treatment will have achieved viral suppression. Such targets are important to ensure sustainability in the Kenyan HIV response and reduction in HIV prevalence among adolescents and young adults.

1.6 Scope/Limitations

Data collection was done through personal interviews, focus group discussions, and anonymous questionnaires to encourage authentic responses, given the delicate nature of the subject. Challenges in data collection arose from limitations in survey accuracy based on perceptions, opinions, and attitudes of the respondents. The feedback shared was also subject to the timeliness of experiences shared. The study also acknowledged potential biases in self-reported sexual behaviour, especially in cultural contexts where discussions surrounding sexual health remain taboo.

The study involved a modest sample size, and participation was based on the willingness and availability of respondents. The study was only conducted in 8 sub-counties within the 2 counties; data generated and findings can mostly be adapted only at the county level.

The researcher, however, mitigated the challenges by creating a youth-friendly space for the respondents to speak freely. The data collection tools were pre-tested in Siaya County and data collected was complemented by secondary data and further literature review beyond the research scope.

1.7 Definition of terms

Adolescents and young people: A Distinct phase of development between childhood and adulthood, characterized by significant physical, cognitive, and psychosocial changes. In this study, this term refers to AGYW and ABYM aged 15-24.

Adolescent girls and young women (AGYW): This term refers to females aged 15–24 years. In this study, it represents a population group experiencing a disproportionately high rate of HIV infection.

Adolescent boys and young men (ABYM): This term refers to males aged 15–24 years. Also represents a population with a slightly low but significant risk for HIV infection.

Antiretroviral therapy (ART): The use of antiretroviral drugs to manage HIV infection. ART improves the health of people living with HIV and reduces the risk of HIV transmission.

Gender-based violence (GBV): Acts of violence, such as physical, sexual, or psychological abuse, that are directed at individuals based on their gender. In this study, GBV presents a risk to HIV infection, especially among AGYW.

HIV prevalence: The percentage of a population that is living with HIV at a specific time. In this context, it represents the estimated number of people living with HIV in Kisumu and Homa Bay counties during the study period.

Perceptions: The way in which something is regarded, understood, or interpreted. In this study, perception meant the opinions of the respondents based on personal experience or observations.

Transactional sex: Sexual relationships where one party provides money, goods, or services to another in exchange for sex. In this context, transactional sex is often driven by economic vulnerability and is a significant risk factor for HIV transmission.

Viral suppression: When the amount of virus in the person's blood is less than 200 copies of HIV per millilitre of blood. In the context of this study, a state in which the level of HIV in

the blood is reduced to undetectable levels through effective ART, significantly reducing the risk of transmission.

CHAPTER TWO

LITERATURE REVIEW

2.1 Trends in HIV epidemic

Adolescents and young people (AYP, aged between15–24) are a substantial portion of the on-going HIV epidemic. Despite general declines in new infections, young people still account for a significant portion. For example, UNAIDS reported that about 1.3 million people acquired HIV in 2024 (UNAIDS, 2024). Globally, adolescents (15–24) comprised roughly one-quarter to one-third of new cases, about 27% of new infections in 2022 (Dzinamarira *et al*., 2024). This proportion is even higher in some parts of sub-Saharan Africa (SSA). In 2024, an estimated 1.3 million AGYW (15–24) were living with HIV (vs ~1.2 million similarly aged males) (UNAIDS, 2025). Each week in 2024, roughly 4,000 AGYW were newly infected (about 3,300 of these in SSA) (UNAIDS, 2025). Women and girls now account for 45% of global new infections (UNAIDS, 2025) and in SSA, women and girls remain the majority with about 63% (UNAIDS, 2024). Chillingly, adolescent girls (15–19) globally accounted for ~71% of all adolescent infections in 2024 (UNICEF, 2025), and in SSA, nearly six times as many girls as boys in this age group are newly infected (UNICEF, 2025). Sub-Saharan Africa remains the HIV hotspot: roughly 77% of global AGYW infections occur in SSA (UNAIDS, 2024). Eastern and Southern Africa alone contributed ~60% of AGYW infections in 2023 (UNAIDS, 2024). These figures indicate that progress is irregular: While new HIV infections have declined by ~60–65% since the late 1990s, infections among adolescents remain obstinately high in high-burden regions (UNAIDS 2024).

Current data reflect both progress and persistence. According to UNAIDS (2025), global new infections fell by ~61% from the 1996 peak, but the pace of decline has slowed. Meanwhile, UNAIDS reports in 2024 only ~87% of people with HIV globally know their status, and among young people these gaps are larger. The World Health Organization estimates that in 2023, about 1.5 million older adolescents (10–19) were living with HIV worldwide, with 140,000 new infections that year (World Health Organization (WHO, 2024). The burden of HIV among youth is concentrated in poorer countries: 84% of HIV-positive adolescents live in SSA (United Nations International Children's Emergency Fund [UNICEF], 2025). Notably, declines in incidence have not kept pace with targets. For example, new infections in AGYW are still about four times higher than the 2025 target (UNAIDS, 2025).

Generally, global and regional trends show steady declines in adult HIV but enduring challenges for adolescents. Young people (especially young women) bear a disproportionately large share of on-going transmission in SSA (UNAIDS, 2024). Epidemiologists stress that comprehensive efforts targeting AYP are needed to reach epidemic control. Agencies (UNAIDS/WHO) have emphasized youth-friendly, integrated services as a strategic priority (WHO, 2024).

2.2 Epidemiology of HIV among adolescents and young people

2.2.1 Prevalence and incidence of HIV in adolescents and young people

Among Adolescents and young people (AYP) worldwide, HIV prevalence varies widely by region. In Kenya, national surveys suggest fairly low overall prevalence in this age group, but with sharp disparities. For example, Kenya Communication Hub (2024) estimates HIV prevalence at ~1.7% among young women (15–24) versus 1.1% in young men. These figures are roughly in line with Kenya's estimates of ~1.3 million people living with HIV (overall 3–4% adult prevalence). By contrast, some counties in Kenya have hyper-endemic epidemics: for instance, in 2022 Homa Bay reported a general prevalence over 16% (Kenya Communication Hub, 2024). Among youth in high-prevalence areas, figures are higher: a Kisumu-based study found overall HIV prevalence 3.5% in ages 15–24 (Centers for Disease Control and Prevention, [CDC], 2024). Notably, even within Kisumu city these rates were highly skewed: 7.1% of young women (20–24) were infected vs only ~1% of teenage boys (CDC, 2024).

On the other end of the spectrum, in lower-prevalence settings, youths comprise a much smaller share of total cases. Nationally in Kenya, adolescents (likely 10–19 or 15–19) account for about 15% of new HIV diagnoses (Miller *et al*., 2024). Similarly, in Kisumu County, youths 15–24 made up 48% of new infections (CDC, 2024), whereas they were only 15% of all people living with HIV.) Within Kisumu in 2017, adolescents were only ~7% of the total 122,000 people with HIV but nonetheless 22% of the ~4,000 new infections that year (Miller *et al*., 2024). These figures illustrate that even when prevalence is low, youth can contribute disproportionately to new cases.

2.2.2 Incidence among youth

Recent data on incidence in Kenya specifically are scarce. However, UNAIDS reports that in 2023 roughly 210,000 AGYW (15–24) acquired HIV globally, a decline from earlier years

but still far above targets (UNAIDS 2024). Proportionally, one thematic brief notes that adolescents comprised about 15% of all new HIV cases in Kenya (Miller *et al*., 2024). Older data from Kenya show even higher shares: in 2017 some analyses indicated roughly one-third (33.5%) of new infections occurred in 15-24-year-olds (CDC, 2024). These findings highlight Kenya's dual epidemics: an expanding epidemic among some youth subgroups versus an aging general epidemic.

Globally, two-thirds of new infections among adults (15+) are now in women and girls, mostly in SSA (Dzinamarira *et al*., 2024). Correspondingly, HIV prevalence in young women far exceeds that in young men. Kenya's difference (1.7% vs 1.1%) is modest but reflects a broader pattern. Elsewhere in SSA, the gap is often far larger. Data form the WHO and UNICEF show that HIV prevalence in adolescent girls/young women can be 2–3 times that of male peers in many African countries (CDC, 2024; Dzinamarira *et al*., 2024). In Kenya, this gender gap is already evident in the national survey data of the Kenya Communication Hub (2024) and is amplified in high-burden regions.

2.2.3 Comparisons within Africa

In comparison to Eastern and Southern Africa (ESA), Kenya's progress has been notable but uneven. Eastern and Southern Africa countries have made steep incidence declines in past decades, yet adolescent girls remain at high risk. For example, UNAIDS reports that 60% of all AGYW with new infections in 2023 lived in ESA (UNAID 2024). Incidence data from some neighbouring countries confirm high youth burden: PHIA surveys showed that in Zambia and Malawi, about 12,000 adolescents aged 15–19 were infected annually per country (Dzinamarira *et al*., 2024), often with urban–rural and gender disparities. In Western and Central Africa, the youth epidemic is smaller in absolute numbers but also shows gender disparities (with fewer resources focused on AYP). Globally, outside SSA, epidemics among youth are more balanced or even male-skewed (UNICEF, 2024).

2.3 Gender disparities and social determinants

A striking feature of the HIV epidemic in youth is the gender imbalance. Globally and regionally, adolescent girls and young women (AGYW) are far more affected than their male counterparts. In Kenya, young women aged between 15 to 24 years have higher HIV prevalence, ~1.7%, compared to young men, ~1.1% (Kenya Communication Hub 2024). This gap is echoed across SSA: UNICEF data indicate that adolescent girls (15–19) accounted for 71% of new adolescent infections worldwide in 2024, and in SSA girls were nearly *six times*

more likely than boys to acquire HIV (UNICEF 2024). UNAIDS estimates that of the 3.1 million 15–24-year-olds living with HIV in SSA, about two-thirds are female (Dzinamarira *et al*., 2024).

Various factors drive these gender disparities. Social and economic inequality is paramount (Mutie *et al*., 2025). In Kenya, endemic poverty and gender inequities constrain girls' power in relationships and even during sexual relations. Studies note that economic marginalization leads many adolescents (especially girls) into transactional or age-disparate sex for basic needs (Dzinamarira *et al,* 2024). For example, a Nairobi qualitative study (the "sponyo" study) found that girls engaged in transactional sex to secure school fees, sanitary towels, food, or status items (CDC, 2024). Similarly, poverty and food insecurity have been linked to higher HIV risk behaviours in Eastern Africa, sometimes referred to as the "triple threat" of poverty, poor education, and child marriage (Truong *et al*., 2022). Conversely, access to education is protective: a Kenyan study found that out-of-school girls were far more likely to have had sex or become pregnant than in-school girls (Thirugnanasampanthar *et al*., 2023). Keeping girls in school, as Kenya's HIV strategy emphasizes, appears to reduce vulnerability (Thirugnanasampanthar *et al*., 2023).

Gender-based violence (GBV) is another critical driver. In Kenya and regionally, intimate partner violence, sexual abuse, and coercion are common, especially among young women. For instance, a recent Kisumu survey reported 20.6% of adolescents had experienced forced sex (Truong *et al*., 2024). Gender based violence directly increases HIV risk through forced, non-consensual, unprotected sex and indirectly through trauma and powerlessness. Studies in East Africa consistently find links between lifetime GBV and higher HIV risk among young women. In Kenya's high-burden regions, stigma around reporting violence and limited legal protection further entrench this risk.

Cultural and gender norms also play a role. Adolescent girls often have less negotiating power within relationships, including condom use. Research from Kenya notes that girls often feel they have "no power" to demand protection in age-disparate or transactional partnerships (Truong *et al*., 2023). In contrast, boys may have more freedom and mobility, leading to differential patterns of risk and health-seeking behaviours. Social determinants such as marriage and pregnancy amplify girls' risk: early marriage and teen pregnancy are both associated with higher HIV incidence, and adolescent mothers face transmission risks to infants. In Kenya, a recent survey established that girls who had ever been pregnant or had dropped out of school had substantially higher odds of HIV infection (Truong *et al*., 2023).

2.4 Intersection with key populations

Within the youth epidemic, subgroups face compounding vulnerabilities. In Kenya, young women who also belong to other key populations such as sex workers, LGBTQ youth, or young women with disabilities face double stigmas. For example, according to the Kenya Communications Hub 2024, slightly more than a third, 33.7% of female sex workers are on treatment vs 94% population average, and youth sex workers or LGBTQ teens confront additional discrimination at clinics. Such layered stigmas reduce access to prevention and care services. The literature stresses that these structural factors (poverty, gender inequality, GBV, marginalization) must be addressed in tandem with biomedical interventions (Dzinamarira *et al*., 2024).

Gender is one of the strongest social determinants of HIV risk among youth in Kenya. Adolescent girls' risk is driven by structural inequities such as; economic dependence, GBV and schooling gap, which amplify disparities seen in the data (Thirugnanasampanthar *et al*., 2023). Consequently, prevention efforts often prioritize AGYW (e.g. Kenya's DREAMS program). However, adolescent boys and young men (ABYM) should not be neglected: they too face challenges (lower testing rates and service uptake, gender norms around masculinity) that affect transmission dynamics. An equity-focused approach recognizes that AGYW and ABYM experience the epidemic differently and may need tailored strategies reflecting those social determinants (United Nations International Children's Emergency Funds, [UNICEF], 2024).

2.5 Proximal and structural risk factors

A wide range of risk behaviours and conditions increase HIV vulnerability among Kenyan youth. Many risk factors are interrelated, combining proximal exposures with deeper social causes.

2.5.1 Transactional sex

Poverty and economic hardship push some adolescents into transactional sexual relationships in exchange for basic needs, money, gifts, fish, school fees, and other survival needs. Recent Kenyan studies confirm this is a common practice. For instance, 13.5% of adolescents in a Kisumu survey reported engaging in transactional sex (Truong *et al*., 2024). Girls often enter "sponyo" relationships (with older men) to support their education or family, which correlates with higher HIV risk. Transactional sex is inherently unsafe: power imbalances limit condom use, and multiple concurrent partners raise exposure. Interventions

like cash transfers or empowerment programmes aim to reduce this driver, but evidence on long-term effectiveness remains mixed.

2.5.2 Unprotected sex and early sexual debut

Studies in Kenya show that many adolescents get exposed to early sex often without protection. In a cross-sectional survey among Kenyan schoolgirls, those out of school were 5.7 times more likely to have ever had sex than those in school (Thirugnanasampanthar *et al*., 2023). Among sexually active youth, condom use at last sex is typically low (often <50%), and knowledge about HIV/STI prevention is incomplete (Thirugnanasampanthar *et al*., 2023). In the Kisumu PrEP study, ~38% of girls had been pregnant, and a similar share had dropped out of school (Miller *et al*., 2024), highlighting overlaps between unprotected sex, schooling, and early childbearing.

2.5.3 Gender-based violence and forced sex

Gender based violence is a common occurrence and intensifies HIV risk. In Kenya, as in other SSA settings, up to one-quarter of young women report sexual violence by young adulthood. Forced sex directly creates transmission events, and even non-physical IPV often results in coerced unprotected sex. The Kisumu cohort found 20.6% of adolescents reported forced sex (Truong *et al*., 2024). Gender based violence also discourages health-seeking as victims may avoid clinics due to shame or partner control. Both sexual violence and intimate partner violence among couples are documented HIV risk factors for youth in Kenya and neighbouring countries.

2.5.4 Limited access to youth-friendly services

Even where condoms, PrEP or testing are available, many adolescents face barriers to accessing them. Youth often cite lack of confidentiality and judgmental attitudes by health care providers as obstacles (Kose *et al*., 2024). For example, Red Carpet Programme participants reported fear of being seen by community members or of providers gossiping about them as reasons to avoid testing or care (Kose *et al*., 2024). Adolescents also lack targeted sexual health education: In one study, Kenyan teens confused PrEP and PEP with contraception, reflecting poor HIV literacy (Miller *et al*., 2024). These proximal factors: fear, stigma in clinics and misinformation are often rooted in cultural taboos around adolescent sexuality.

2.5.5 Poverty and food insecurity

Besides direct transactional sex, poverty is a background enabler of HIV risk. Adolescents from poorer families have fewer life options and may engage in earlier sex, sometimes as a surviving strategy. The Red-Carpet qualitative study noted "poverty" as a common theme linked to poor care engagement (Kose *et al*., 2024). Poverty also means lack of transportation and support for clinic visits. One Kenyan survey showed many teens living with HIV had interrupted school or work due to cost or distance of services. Addressing such upstream factors requires multi-sectorial efforts (e.g. social cash transfers, food support) which have been piloted in Kenya's national strategies.

2.5.6 Education and adolescent environment

School attendance is a powerful protective factor for girls. The BMC Reproductive Health study showed that being in school radically reduced girls' risk behaviours i.e. girls in school were far less likely to have sex or pregnancy (Thirugnanasampanthar *et al*., 2023). Conversely, school dropout, whether due to poverty, pregnancy or migration, sharply enhanced HIV risk. Further, some evidence indicates that HIV-positive students are stigmatized in Kenyan boarding schools, leading to non-disclosure and interrupted treatment (Kose *et al*., 2024). Structural interventions like keeping girls in school and linking HIV services with educational settings are therefore critical.

2.5.7 Stigma and mental health

HIV-related stigma remains endemic. Adolescents report fear of testing positive and being ostracized. In focussed group discussions, Kenyan youth cited fear of a positive test result and stigma as major barriers to testing (Kose *et al*., 2024). Stigma also affects those already positive: nearly all studies report that perceived stigma from family, peers, or health workers undermines treatment adherence (Kose *et al*., 2024). Mental health issues such as depression and trauma often co-occur with HIV risk or with living with HIV, yet services are scarce. These psychosocial factors are structural determinants that interact with other risks: for example, a youth who fears disclosure may skip appointments, fuelling poor outcomes.

2.5.8 Other social factors

Child marriage and teenage pregnancy play roles. In Kenya, some girls marry before 18, often to older men, which increase HIV exposure. Also, gender norms which discourage contraceptive use, except through marriage, lead many girls to rely on male partners for

protection, further reducing agency. Additionally, urban–rural differences exist: urban slums in Nairobi or Kisumu see higher risk behaviors due to crowding and poverty, while rural girls may face different constraints e.g. lower schooling, health access.

2.6 Efficacy of prevention interventions

2.6.1 Biomedical interventions

Antiretroviral-based prevention has expanded in Kenya. Oral pre-exposure prophylaxis (PrEP) is a cornerstone: after approval in 2015 and rollout in 2016, over 321,000 Kenyans had initiated PrEP by mid-2023 (Truong *et al*., 2024). Kenya is among leaders in sub-Saharan Africa for PrEP scale-up. However, uptake remains low among youth: studies show that most adolescents are unaware of PrEP or confuse it with contraception (Truong *et al*., 2024). A Kenyan cohort found only ~1-2% PrEP use among those at high risk, though use was higher (4.8%) among those reporting transactional sex (Truong *et al*., 2024). Long-acting prevention e.g. injectable Cabotegravir and vaginal ring may help reach youth. One study noted adolescents were interested in "future options like implants or injectables" (Truong *et al*., 2024).

Post-exposure prophylaxis (PEP) is formally available in Kenya but rarely used by adolescents. Another biomedical measure is voluntary medical male circumcision (VMMC), which Kenya scaled successfully: ~90% of males (adolescent and adult) have been circumcised (Kenya Communications Hub 2024). Condoms are widely available, but consistent use among youth remains suboptimal. Efforts like school-based condom distribution and youth-friendly clinics have had mixed success.

2.6.2 Behavioural and educational programmes

Evidence supports comprehensive sexuality education (CSE) to improve knowledge and attitudes. In Kenya, the formal school curriculum includes CSE modules, though implementation varies. Meta-analyses show CSE can improve HIV knowledge and condom use intentions in adolescents (Kim *et al*., 2023). Community-based programmes targeting AYP – such as the DREAMS partnership – have aimed to address the "triple threat" by combining education support, mentorship, and health services for AGYW. Early evaluations of such programmes (in Kenya and other countries) indicate modest reductions in HIV incidence, but results are mixed and context-dependent.

Peer-led and community interventions have shown promise. For instance, the *Maneno Yetu* community project in Kisumu provided youth-friendly SRH education in informal settlements and linked many youths to services (including HIV testing). Mobile and community health campaigns (like door-to-door testing) have effectively reached out-of-school youth. Crucially, interventions that engage young people in design tend to work better.

2.6.3 Community-based and integrated approaches

Integrating HIV prevention into broader youth services is vital. Kenya has piloted "one-stop shops" that offer HIV testing, SRH counselling, and HIV prevention (condoms/PrEP) alongside other services (e.g. education or livelihood support). The Red-Carpet Program and similar initiatives combine clinical care with school outreach, mentorship and psychosocial support for adolescents living with HIV (Kose *et al*., 2024). These integrated models (health and social services, youth clubs, drop-in centers) aim to make services more acceptable and reduce stigma.

2.6.4 Digital health interventions

Mobile health is a developing intervention strategy. A recent study in Kenya tested the use of web-based portal for phones and tablets in engaging HIV-positive youth in care (Nturibi *et al*., 2025). The results were promising with 91% of AYP expressing interest in using the portal, 78% finding it easy to use, and over half anticipated using it weekly (Nturibi *et al*., 2025). It was demonstrated that features such as appointment reminders, lab results access, and mood trackers are highly valued (Nturibi *et al*., 2025). These digital tools (apps, SMS reminders, hotlines) are being explored widely. For prevention, mobile apps are also used for disseminating information or linking at-risk youth to testing locations. In Kenya, large mobile networks collaborate on HIV education campaigns e.g., weekly quiz SMS or radio shows.

2.6.5 Youth-led and rights-based interventions

A novel approach is empowering young people themselves as change agents. Programmes like Operation Triple Zero (OTZ) are youth-driven. They train HIV-positive adolescents to support peers in achieving "0 missed appointments, 0 viral load, 0 stigma." Operation Triple Zero began in Kenya and now spans multiple African countries (CDC, 2024). Importantly, OTZ has shown measurable impact: one Kenyan pilot reported a 30% increase in viral suppression among youth participants, versus only 3% improvement in non-participants (CDC 2024). Engaging youth in policy advocacy and community mobilization also builds

demand for services. For example, Kenya's National AIDS Strategic Framework explicitly involves youth networks in designing interventions (e.g. youth parliaments on health).

2.6.6 Mixed and combination approaches

The most effective programmes tend to combine elements. For example, comprehensive packages under the PEPFAR/CDC DREAMS initiative included cash transfers, education support, GBV prevention and HIV testing. Early data from Kenya's DREAMS have shown drops in pregnancy and violence reports, though direct HIV impact is still under evaluation. Another example is school health clubs, which pair CSE with peer counselling and sometimes HIV testing days. These integrated school-based efforts have increased adolescent testing in some districts.

2.6.7 Future prospects in HIV prevention strategies

It is worth noting that the HIV prevention strategies for Adolescents and young people in Kenya are expanding, thanks the donors and the devolved health system, but challenges of inadequate financing and poor implementation remain. New and innovative approaches especially the ones that are youth-led are promising yet require sustained support and adaptation. There are some important lessons such as the need for adolescent-friendly health services designed by youth and led by youth themselves. The adolescent and youth friendly services can be characterized by flexible operating hours, confidential spaces, peer service providers involving multi-sectoral collaboration (health-education-social welfare), and youth involvement at every step. Evidence for each approach is still growing: some interventions (e.g. PrEP) are backed by strong trial data, while community and digital programmes often rely on pilot studies and formative research (Miller *et al.*, 2024). Continued evaluation and scale-up of successful pilots will be essential.

2.7 Barriers to uptake of services among adolescents and young people

Despite the availability of prevention tools, many Kenyan youths do not fully access them. Barriers occur at multiple levels:

2.7.1 Stigma and fear

HIV-related stigma is widespread and discourages service use. A recent survey in Kenya by the Kenya Communications Hub (2024) established that 62% of respondents avoided HIV testing due to fear of community reaction or stigma. Adolescents are especially sensitive to the opinion of their peers. Youths in focussed group discussions frequently cited fear of a

positive result and concerns about confidentiality as reasons to avoid testing (Kose *et al*., 2024). Clinic environments can be intimidating: Some youth dislike being seen at HIV clinics or worry that providers will judge them for their sexuality (Miller *et al*., 2024). Stigma also affects linkage and retention: Newly diagnosed adolescents often delay entering care due to shame or denial (Kose *et al*., 2024). The attitude of healthcare workers is a common challenge. A recent study reported that apparent hostility and inadequate privacy in health care facilities impedes adolescent engagement. Stigma can disrupt care of HIV students in schools. Kenyan HIV-positive students often hide their status for fear of discrimination (Kose *et al*., 2024).

2.7.2 Knowledge and informational gaps

Most adolescents have inadequate knowledge in HIV. There are several misconceptions surrounding HIV transmission and prevention. For example, the PrEP study called "Maneno Yetu" in Kisumu found widespread misunderstanding about PrEP/PEP and associating the prophylaxis with the HIV Antiretroviral Treatment. Most teenagers had never heard of these and some even confuse them with birth control pills (Miller *et al*., 2024). Inadequate knowledge dents motivation to seek services. Youth may misunderstand dosing or efficacy of drugs, regardless of their awareness. The lack of targeted HIV education in secondary school curriculum, beyond basic biology, means many adolescents first learn about HIV from peers or media, which is often incomplete or inaccurate (Miller *et al*., 2024).

2.7.3 Gender and cultural norms

Traditional perceptions on adolescent sexuality impose hurdles. Most communities in Kenya believe premarital sex is a taboo, hence parents discourage open discussion. This leads to secrecy: for example, boys and girls often hide clinic visits from parents to avoid suspicion. Male youth in particular may feel ashamed to seek help for sexual health, as evidenced by starkly lower testing rates: in Eastern/Southern Africa only ~19% of boys (vs 29% of girls) 15–19 had been tested in the past year (UNICEF 2024). Societal expectations also affect preventive behaviours: some girls believe they should not insist on condoms or attendance at co-ed health classes. Overall, gender norms slow uptake of HIV prevention among both sexes, though in different ways.

2.7.4 Service delivery issues

Health system barriers are significant. Adolescents need youth-friendly services such as friendly staff, flexible hours and stigma-free care. Where these are lacking, youth often skip visits. For example, pregnant teens in Kenya often miss antenatal visits if the clinic is not adolescent-friendly. Stock-outs of commodities e.g. condoms and PrEP in some clinics reduce trust. Geographic access is another issue: rural youth may face long travel to a facility. In urban slums, clinics may be overcrowded. Cost and logistics also matter; even subsidized transport passes or school-of-work commitments can limit clinic attendance.

2.7.5 Legal/policy constraints

Kenya's age-of-consent laws can impede uptake. As of 2023, adolescents may receive HIV testing and SRH services without parental consent after age 15, but many remain unaware of this policy. Some providers still require parental involvement for minors, creating confusion. The requirement for parental consent can deter sexually active teenagers who fear disapproval. Similarly, stigma around adolescent sexuality has led some schools to bar pregnant students from attending, indirectly pushing girls out of reach of school-based interventions (Thirugnanasampanthar *et al*., 2023).

2.7.6 Psychosocial factors

Mental health challenges such as depression and anxiety often accompany HIV risk but are rarely addressed. Adolescents grappling with trauma or mental illness may neglect their health. The Red-Carpet qualitative study identified mental health needs as a major theme, whereby many youths struggled emotionally after diagnosis (Kose *et al*., 2024). Youths also report lacking social support e.g., orphaned or single mothers may have no one to encourage clinic visits. Without mentorship or peer support programmes, at-risk youth may "fall through the cracks."

2.8 Emerging strategies and innovations

To overcome the challenges above, new and innovative approaches are being piloted. Many strategies target youth empowerment and use of technology.

2.8.1 Youth-led initiatives

In Kenya and beyond, there is growing recognition that adolescents should lead interventions. Programmes like Operation Triple Zero (OTZ) demonstrate this shift. Operation Triple Zero recruits adolescents living with HIV to form peer support groups and

councils that define their own goals and activities. Youth members mentor newly diagnosed teens and advocate for youth-friendly services within the facilities. The impact of such peer-driven models is striking: In the first OTZ clinic (in Western Kenya), viral suppression among participating adolescents improved by 30% compared to 3% in non-participants (CDC, 2024). Based on this success, OTZ has scaled from one clinic to ten countries in Africa (CDC, 2024). Youth networks are also increasingly involved in policy. For example, Kenya's National AIDS Control Council consults a Youth Advisory Board on strategic planning. Activist campaigns e.g. the Global Network of Young People living with and affected by HIV (Y+ Global), a regional network focusing on raising awareness of the rights of adolescents and young people living with HIV in all their diversity. These youth-led strategies harness the energy and credibility of peers to improve engagement.

2.8.2 Digital and mobile health

Mobile technology use is nearly universal among Kenyan youth, making digital tools a promising avenue for reaching young people. Several e-Health initiatives are currently being developed to keep up with the digital era. A preliminary study in Kiambu and Kirinyaga counties showed strong digital readiness: 91% of adolescents were willing to use a web portal for HIV care, and over half expected to use it weekly (Nturibi *et al*., 2025). The young people wished for features like appointment scheduling, test result access, and chat with health care providers (Nturibi *et al*., 2025). Importantly, they valued mental health support (mood tracking) as well. Based on these findings, trials are underway of apps and SMS platforms specifically for HIV-positive youth (some built on WhatsApp) that provide reminders, health tips, and peer support. Telehealth counselling (via phones) is also being tested for rural adolescents. Beyond portals, digital media campaigns (using Instagram, TikTok, radio dramas) are new frontiers for prevention messaging tailored to youth culture. While rigorous evidence is still emerging, early pilots suggest high acceptability of digital tools in this demographic (Nturibi *et al*., 2025).

2.8.3 Integrated service models

Innovations also focus on linking HIV with other services. WHO emphasizes that adolescent-friendly, comprehensive care, integrating HIV testing/treatment with SRH, mental health, and social support, works better than siloed approaches (WHO, 2024). Kenya has experimented with such models: for example, the Red-Carpet Program (RCP) provides fast-track "VIP" services at clinics for newly diagnosed youth, along with peer navigators and

consistent linkage to school systems (Kose *et al*., 2025). AYLHIV in the RCP strongly favours integration: the program actively collaborates with boarding schools to allow uninterrupted treatment when adolescents are on campus (Kose *et al*., 2025). Similarly, some health centers co-locate contraception, STI screening, and HIV services so youth can receive one-stop care. Outreach programs now often include "health fairs" at youth centers offering HIV testing along with tuberculosis screening, malaria nets, or educational materials – thus normalizing HIV services as part of general adolescent health.

2.8.4 Social and structural innovations

On the social side, strategies include economic empowerment and gender-transformative programs. For instance, cash-transfer pilots in Western Kenya (financial stipends conditional on school attendance) have shown reductions in transactional sex and early pregnancy among girls. Meanwhile, gender-based violence prevention programs (community dialogues, safe spaces) have reduced reported violence against girls in some trial villages. Legal advocacy is another frontier where the Kenyan civil society is working to lower the age of independent consent for all health services (not just HIV tests at 15) and to strengthen immediate enforcement of laws against GBV.

2.8.5 Integration with technology and data

Kenya is also applying data innovations and integrating them within service delivery mechanisms. The KHIS (health information system) now flags adolescents who miss appointments, prompting follow-up by adolescent-friendly counsellors. Drones are being trailed to deliver lab results or medication to remote areas for youth clients. Geospatial mapping helps target hotspots where youth HIV incidence is high (e.g. identifying fishing villages where new infections cluster). These "precision public health" approaches ensure interventions reach high-risk youth groups (e.g. ID youth migrants, MSM, or rural out-of-school youth).

2.8.6 Global youth advocacy

Beyond on-the-ground programs, youth activists influence international policy. The positive press and CDC partnership around OTZ is an example of youth-driven advocacy raising attention (CDC, 2024). Young Kenyan voices also participate in global forums e.g. International AIDS Conference held biannually all over the world. The youth delegations, pushing for adolescent-specific funding and priorities continue to champion for the ethical

and meaningful engagement of young people in decision making spaces as well as in research and drug trials.

2.8.7 Emerging evidence

Recent pilot studies are encouraging. For instance, the strong acceptability of digital portals (Nturibi *et al*., 2025) and the measurable success of OTZ (CDC, 2024) have prompted scale-ups. The government of Kenya in conjunction with several partners are now advocating for integration of adolescent indicators into routine surveillance e.g. viral suppression rates among 15–24-year-olds. International funders such as PEPFAR and Global Fund underscore disaggregation of AYP-related data and youth-centred design. These alterations, along with stronger partnerships with education and youth ministries, reveal an innovation impetus. Maintaining it will require on-going research, especially mixed methods, to capture youths' perspectives and flexible programs that adapt as AYP's needs advance e.g. in a post-COVID era where digital engagement has increased.

2.9 Theoretical framework

This survey applied the Social-Ecological model (SEM) developed by Urie Bronfenbrenner in 1970s. This model is mostly adapted in public health to understand how individual, interpersonal, community, organizational, and societal factors collectively influence behaviour. In terms of HIV prevention, SEM recognizes that adolescent and young people's behaviour is shaped by several factors including personal beliefs, social relationships, community norms, and broader policy environment.

Levels of SEM in the Study:

- **Individual level**: These include factors specific to the adolescent or young person, such as sexual behaviour, knowledge about HIV prevention, substance use, and demographic characteristics such as age and gender. This level includes individual attitudes and self-efficacy, overlapping with concepts from the HBM.
- **Interpersonal level**: These are influences from close relationships, including family, friends and sexual partners. Peer influence and pressure is a very strong in this age group. The social pressure to fit in and keep up with their peers can significantly affect individual actions and decisions.
- **Community level**: The community establishes cultural and social norms that have a direct impact on the individual. Societal issues such as levels of HIV stigma,

availability of youth-friendly services, and community support for HIV prevention affect the uptake of services and agency of the young person. For instance, in communities where HIV stigma is high, AYP may be less likely to access testing or prevention resources.

- **Organizational level**: The organizational level factors are attributed to institutions such as schools, healthcare providers, and local organizations that offer health services and education and the roles that they play in the lives of the young person. This level examines whether schools and healthcare organizations in Kisumu and Homa Bay provide sufficient resources and support to reduce HIV risk.
- **Societal level**: At societal level, peripheral factors such as national HIV policies, the economy, and healthcare infrastructure affect access to resources, services and commodities. Policies around HIV prevention and access to care for adolescents, as well as socioeconomic disparities, shape risk behaviour indirectly by influencing other levels of the SEM.

2.10 Conceptual framework

The conceptual framework for this research was motivated by the socio-ecological model, which recognizes that health behaviours and outcomes are influenced by multiple factors at different levels. These range from individual characteristics to interpersonal, community, institutional and even policy levels. These demonstrated how individual characteristics interrelated with the external factors.

In line with the objectives of the study; to determine the prevalence, risk factors and effectiveness of the programmes, the dependent variables in this study included; HIV prevalence and Risk among adolescents and young people.

The independent variables were clustered according to the Socio-ecological model levels, with the examples of parameters explored:

- individual level factors (Demographics, knowledge of HIV prevention, sexual behaviour and drug abuse)
- Inter-personal level factors (Peer influence, Parent/guardian influence, partner dynamics and negotiation power, GBV)
- Community-level factors (Stigma and discrimination, cultural norms, community initiatives)
- Structural/Policy level factors (National HIV policies, resource allocation for youth programmes, laws on age of consent for HIV testing and SRHR services, accessibility

and friendliness of health services, HIV programmes and interventions, school-based education programmes)

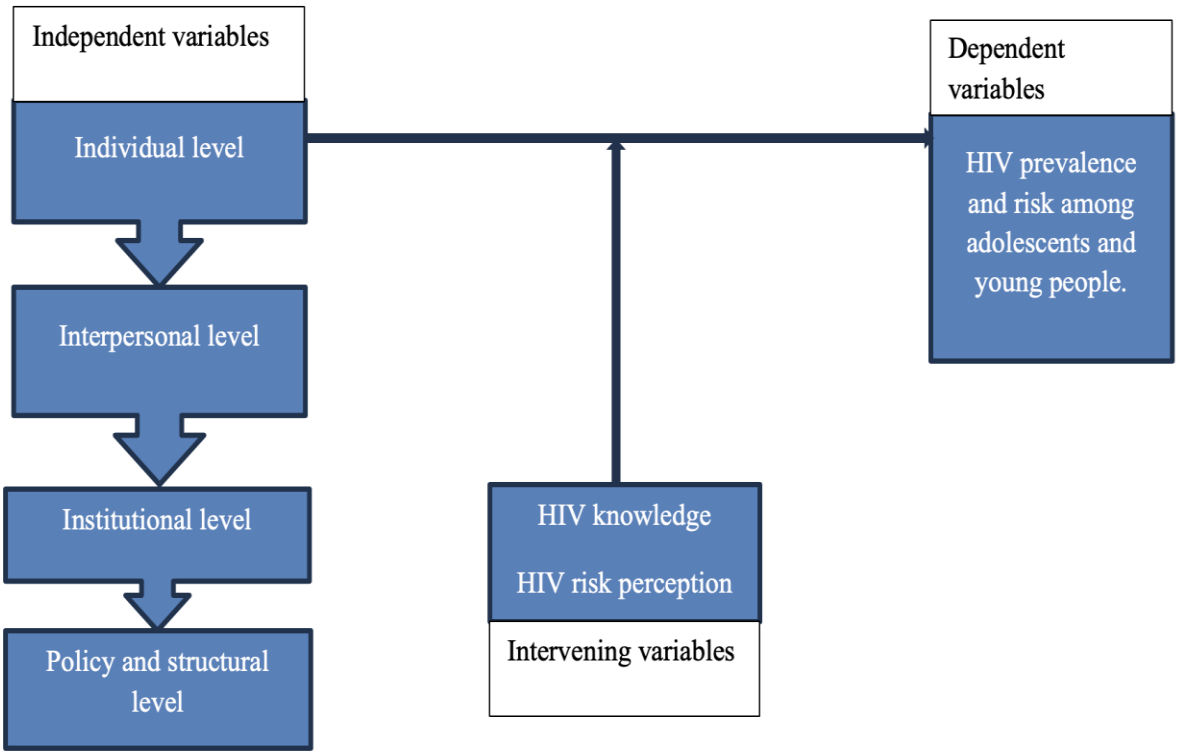

Figure 2.1: Conceptual framework showing factors influencing HIV prevalence and risk factors among adolescents and young people

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study area

This study was conducted in Kisumu and Homa Bay counties of Kenya (Figure 3.1), both of which have high HIV prevalence rates, particularly among adolescents and young people. According to the Kenya HIV estimates, in 2018, Homa Bay recorded a HIV prevalence of 20.7% while Kisumu recorded a prevalence of 16.3% (NACC, 2018) compared to the national prevalence of 4.9% at the time. The two counties rank among the top 5 high HIV prevalence counties in Kenya alongside Busia (7.7%), Migori (13.3%), and Siaya (21%) in the same year. The HIV prevalence has since lowered overall across the country, but there is an evident data gap in the localized data since 2018.

The selected regions exhibit various characteristics including urban, peri-urban, and rural areas to capture the diversity of the population and account for variations in HIV infections across different settings. The counties under study are also characterized by significant disparities in healthcare access and socio-economic conditions, which may contribute to variations in HIV incidence between AGYW and ABYM.

The two counties have also been the priority focus areas for HIV prevention and treatment programmes such as the Determined, Resilient, Empowered, AIDS free, Mentored and Safe (DREAMS) program supported by the US government to holistically support Adolescent Girls and Young Women and keep them HIV free.

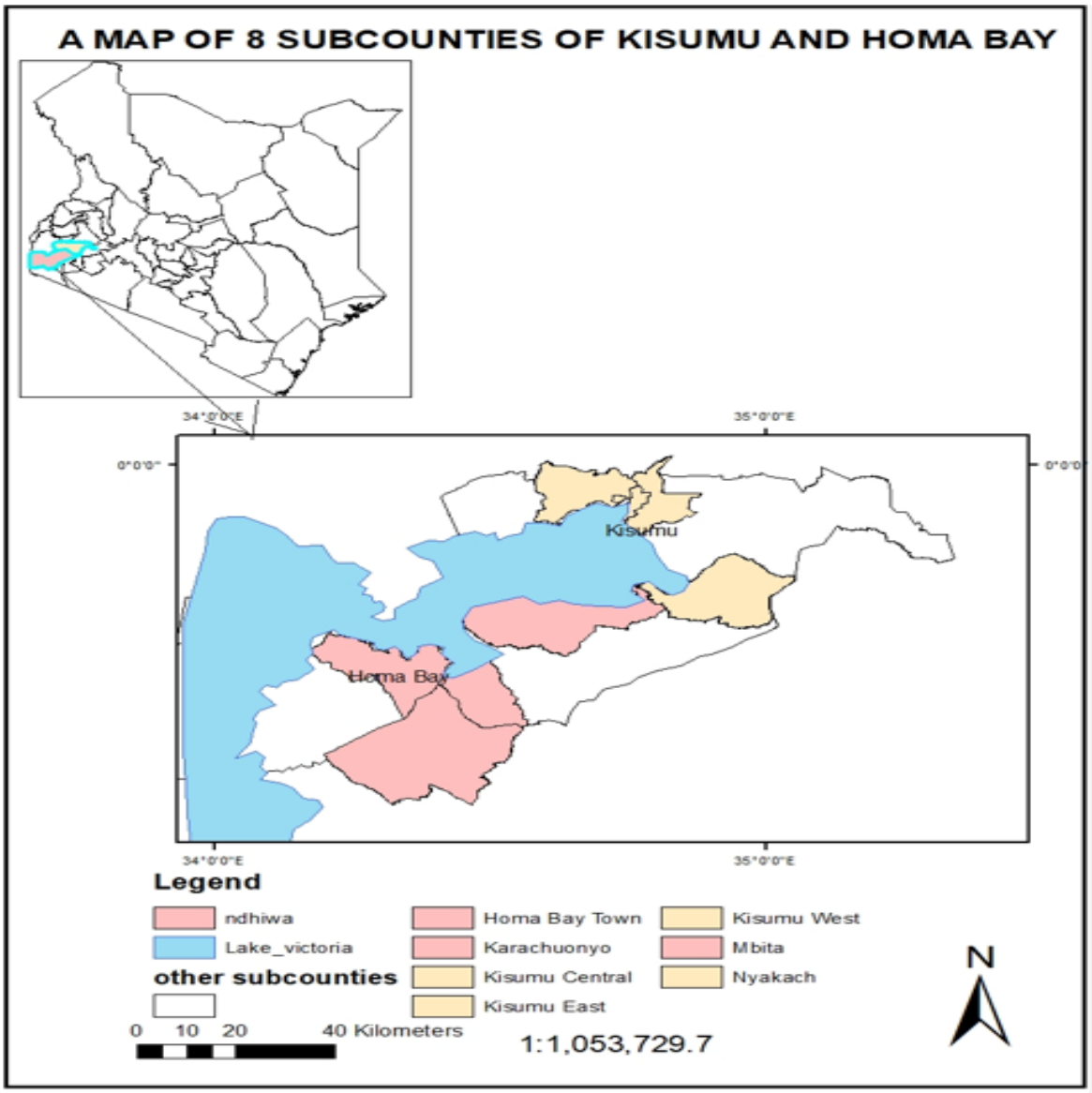

Figure 3.2: Map showing study areas, Kisumu and Homa Bay counties

3.2 Research design

This study utilized a mixed methods approach, employing both qualitative and quantitative methods. The research utilized quantitative data collection methods comprising of structured questionnaires to collect numerical data regarding the risk factors and access to health services. In order to complement the quantitative data, more in-depth information was collected using key informant interviews and focus group discussions. Secondary data from four health care facilities in Kisumu (Pap Onditi Sub-County Hospital in Nyakach & Nyalenda Health Center in Kisumu Central). While in Homa Bay county, secondary data was collected from Kendu Sub-District Hospital in Karachuonyo and Homa Bay County and

Teaching Hospital in Homa Bay. The secondary data from the facilities were reviewed to provide data on the prevalence rates of HIV in both counties across both populations

3.3 Target population

This study targeted a population of adolescents and young people aged 15–24 years in Kisumu and Homa Bay counties. Any adolescent or young person within this age group who was willing to participate in the study was welcome, regardless of their HIV status, in order to capture a widespread understanding of the factors contributing to HIV transmission and prevention. The participants were drawn from youth-led and civil society organizations to ensure balanced representation. The study also targeted the healthcare providers, community leaders, and policy-makers involved in HIV prevention and treatment efforts as key informants to provide insights into the challenges and opportunities for addressing the HIV epidemic among young people in Kenya.

3.4 Sampling and sample size

Both probability and non-probability sampling methods were used to achieve an assorted sample. Study participants were also recruited using purposive sampling, snowball sampling and consecutive sampling.

The sample size was determined using Cochran's formula (1977) for estimating proportions, with a 95% confidence level and a 5% margin of error. Using the overall 4% HIV prevalence in Kenya, a sample size was calculated. For the qualitative component, 4 key informants (peer health providers) and 4 focus group discussions (2 for AGYW and 2 for ABYM) were conducted. The following is the approximate estimate according to the Cochrane formula.

$n = (Z^2 * p * q) / e^2$

Where:

n = required sample size

Z = Z-value for the desired confidence level (e.g., 1.96 for 95% confidence)

p = estimated proportion of the population with the condition (e.g., HIV prevalence in women)

q = 1 - p (proportion without the condition)

e = margin of error (desired precision, e.g., 0.05 for 5%)

For this study, with an estimated HIV prevalence of 4% (p = 0.4), 95% confidence level (Z = 1.96), and 5% margin of error (e = 0.05), the sample size is calculated as follows:

n = (1.96^2 * 0.04 * 0.9) / 0.05^2

This resulted in a required sample size of 59 participants in each of the two counties, hence a total of 118.

3.5 Research instruments

The data was collected using different data collection instruments for quantitative and qualitative methods, including structured survey questionnaires for the respondents, interview guides for the key informants, and focus group discussion guides.

The quantitative data set was collected using the questionnaires administered to AGYW and ABYM with the help of the civil society representatives. The questionnaire tool was structured to capture demographic information, sexual behaviour, HIV knowledge, access to healthcare services, and perceived experiences of stigma and discrimination.

Further information on the challenges and opportunities for HIV prevention and treatment among adolescents and young people was obtained through key informant interviews with healthcare providers, community leaders, and policymakers. The interview guide covered questions related to strategies of HIV prevention, barriers to accessing health care services, and community-based interventions as a means of reducing the incidence of HIV infection.

3.6 Pre-testing

Before embarking on the data collection, the pre-testing of the data collection tools was conducted, a crucial step in ensuring the feasibility of the research tools and whether they would provide enough information from the study. The pre-testing of the research instruments was conducted in Siaya County to ensure data clarity, reliability, and validity. Siaya County was selected due to its proximity and known socio-demographic characteristics, almost similar to both Homa Bay and Kisumu. The pre-test study involved administration of survey questionnaires and interview guides on a random small sample of 10 AGYW and 10 ABYM respondents. This pilot test was significant in determining any ambiguities or inconsistencies with the questions for necessary revision to increase the quality of the instrument.

3.7 Secondary data

During this study, secondary data sources were also greatly utilized in the study in the form of reports, health records from the National Diseases and Syndemic Control Council (NSDCC), Kenya Demographic and Health Surveys, four health facilities in Kisumu and the UNAIDS Aidsinfo data website. Secondary data was used to place into context the trends in

HIV prevalence among adolescents and young people in Kenya. This was further supported with data from key informant interviews and focus discussion groups in order to achieve a rich picture of the HIV epidemic among AGYW and ABYM.

3.8 Validity of the instruments

Different approaches were implemented to make the research instruments valid. The questionnaires and interview guides were developed in accordance with the study objectives, and questions were reviewed by experts in the field of HIV research and public health. The instruments were designed to capture all relevant variables related to HIV prevalence, risk factors, and access to healthcare services. Face validity was already established by pre-testing the instruments with a small sample of respondents in Siaya county to ensure that the questions were concise, logical, and relevant to the target population. Feedback from the pre-test was used to refine the questions and ensure that they accurately cover the envisioned perceptions.

3.9 Reliability of the research

The internal consistency of the survey questionnaires was assessed using Cronbach's alpha, a statistical measure of the reliability of a set of items or scales. A Cronbach's alpha value of 0.70 or higher was considered acceptable for the survey instruments. The internal consistency was calculated during the pre-testing phase to ensure that the items within the questionnaire are measuring the same construct.

3.10 Data collection

Data collection was boosted by support of local youth-led and civil society organizations such as Sauti Skika network of young people living with HIV and Lake Region Community Development Initiative (LARCOD). These organizations assisted in mobilization and recruitment of study participants.

Structures questionnaires were distributed to recruited study participants. The participants were requested to fill the survey forms and answer the questions while maintaining privacy and confidentiality of information. In addition to questionnaires, FGDs and KIIs were also conducted on health care providers to enrich the data. During interviews, open-ended interview questions were used to get data from respondents.

A total of 4 Focus discussion groups (FGDs) were conducted to engage the AGYW and ABYM in discussing HIV infection risks, ways of prevention, and care. The FGDs were used as an avenue for information to participants on why they are considered more vulnerable to

the epidemic and how effective the current interventions are. The FGD guide included questions about sexual behaviour, gender dynamics, access to healthcare, and the influence of socioeconomic factors on HIV risk. The FGDs were conducted separately for 15–19-year-olds and 20–24-year-olds. The Key Informant Interviews were only conducted with 4 peer providers who work directly with the Adolescents and Young People at the health facilities.

3.11 Data analysis and presentation

Data was analysed using descriptive statistics, frequencies, percentages, and standard deviation. Qualitative data was first transcribed and translated, then coded and analysed according to the themes and patterns formed. A verbatim approach was used in data presentation, whereby direct quotations and selected comments from the informants were used to amplify the informants' voices in the discussions. Computer-assisted data analysis was performed using the Statistical Packages for Social Sciences version 28. Data is hereby presented in tables, charts, charts, and figures.

3.12 Ethical considerations

Research approvals were sought from Egerton University post graduate school board, Egerton University Research Ethics Committee (EUREC) and National Commission of Science, Technology and Innovation (NACOSTI) before starting the survey.

Participation of respondents in this research was purely voluntary. Offensive, discriminatory, or otherwise offensive language was avoided in formulating Questionnaire/Interview/Focus group questions: the researcher made sure that the highest level of objectivity in discussions and analyses was maintained throughout this research study. Participants gave signed consent and in cases where the participants were minors, consent was sought from the parents.

All information derived from the respondents was kept private and anonymous. The researcher ensured participants were informed of their protection and rights during the research and disclosed contacts of where to report any violations. Whatever works from other authors used in any part of the dissertation shall be acknowledged using the APA referencing system. The passwords on the SPSS templates will ensure safe custody of the information besides burning it in discs. Raw data was only handled by the authorized researcher.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the survey. First, the participants' socio-demographic profiles are presented followed by an in-depth analysis of HIV prevalence patterns by gender and location. The key HIV risk factors identified by respondents are interpreted and finally their perceptions of intervention strategies assessed. A total of 118 participants were involved in the survey, comprising of 64 adolescent girls and young women and 54 adolescent boys and young men.

4.2 Socio-demographic characteristics of the respondents

The characteristics of respondents who comprised Adolescents and Young People in Kisumu and Homa Bay counties were identified in order to establish how socio-demographic factors influence risk of HIV in the sub-counties. Hence the study gathered the respondents' general characteristics which included: Gender, age, education level, employment status and HIV testing status of the participants.

4.2.1 Sex of the respondents

From the study, majority of the respondents were females as represented by 54.2% of the total respondents. The male respondents made up at total percentage of 45.8% as shown in Table 4.1.

Table 4.1: Sex of respondents

Sex	Frequency	Percentage
Male (ABYM)	54	45.8
Female (AGYW)	64	54.2
Total	118	100

This survey achieved an objectively balanced sex representation, though with a slightly higher proportion of female respondents. This aligns with the study's focus on comparing HIV incidence between AGYW and ABYM, and reflects the general observations that women engage more in health-related surveys than men. It also resonates with known testing patterns. For example, in Eastern and Southern Africa, young men are less likely to get tested for HIV compared to girls (Cowden *et al.*, 2020). In Kenya, women partake in health-related research more frequently compared to men. Men are perceived to be persevering and self-

reliant, hence seeking health care or joining research is often seen as a weakness (Chavalala *et al*., 2025; Mokua *et al*., 2024). Chavalala *et al.* (2025) demonstrated that masculine norms drive men to avoid routine check-ups and postpone treatment until emergencies. This defiance discourages several men from joining health-related surveys.

Conversely, women interact more often with health services. As primary caregivers, mothers take children to clinics and attend antenatal visits, putting them in contact with health providers and researchers. They have a tendency to be health-conscious. Studies note that women often exercise their own agency in participating even within patriarchal households (Kamuya *et al*., 2017). Women's selflessness and social networks also help: many Kenyan women join community self-help groups (e.g. village savings "chamas") that are integrated into the public health strategy, spreading information and support (Uysal *et al*., 2025). These social structures make women more accessible for recruitment into health-related studies.

Health outreach in East Africa often focuses on maternal and child health, a sphere dominated by women. Men's work obligations such as labour migration and stigma around illness e.g. fear of an HIV diagnosis mean they are less present in clinics and community forums (Mokua *et al*., 2024) Consequently, when research teams recruit in communities, they primarily encounter mothers and female guardians, so men remain underrepresented in studies.

4.2.2 Age of the respondents

The study comprised a total of 118 respondents aged between 15 and 24 years, who were categorized into two main age groups: adolescents (15–19 years) and young adults (20–24 years)**.** The findings indicate that 52.5% (n=62) of the participants were aged between 20 and 24 years**,** while 47.5% (n=56) fell within the 15 to 19 years bracket as summarized in Table 4.2.

Table 4. 2: Age distribution of respondents

Age in years	Frequency	Percentage
15-19 Years	56	47.5
20-24 Years	62	52.5
Total	118	100

Only seven respondents were within the ages of 15-17. This slight predominance of young adults echo their increased probability to independently access and partake in health-related

surveys, especially those involving sensitive issues such as HIV. Globally, researchers consistently find that younger adults participate in health surveys at higher rates than older adults. For example, Michael *et al*. (2019) noted that "very old people are known to participate less often in social surveys than younger age-groups." In practice, age-related nonresponse rises markedly past middle age (Michael *et al*., 2019).

From the current survey, the 15–19 age bracket individuals were slightly fewer in number. However, they represented a significant proportion. Since they are still in development stage, where curiosity, peer pressure, and identity formation are intensified, adolescents have a higher probability of experimenting risky sexual behaviours. These individuals may also face greater obstacles to accessing HIV prevention services, including stigma and lack of youth-friendly healthcare environments. Globally, most new infections occur among the youth (Kempton *et al*., 2019). In Kenya, young people (15-24 years) contribute a large share of new cases. For example, an estimated 42% of new infections occur in this age group (Zeballos *et al*., 2024).

An equal representation of both age groups offers a balanced podium for comparing risk exposure and behaviour patterns. The notable age-related differences in HIV vulnerability underline the need for age-specific interventions and not just 'umbrella' ones which assume a one size fits all approach**.** HIV prevention strategies and interventions targeting the adolescent's cohort should emphasize on comprehensive age appropriate sexuality education (ASE), empowerment, and early prevention, while those for young adults should address economic empowerment, access to youth-friendly services**,** and harm reduction interventions.

4.2.3 Distribution of respondents by education level and sex

Education was a key demographic in this study, assessing the correlation between the levels of education and the HIV infection rates. This indicator revealed varied patterns for AYP and realities of both genders across the two counties.

Table 4.3: Distribution of respondents by education level and sex

Education level	AGYW (n=64)	%	AGYW (n=54)	%	Total (N=118)	%
No formal education	3	4.7	2	3.7	5	4.2
Primary Education	14	21.9	13	24.1	27	22.9

Secondary Education	30	46.9	26	48.1	56	47.5
Tertiary Education	17	26.6	13	24.1	30	25.4
Total	64	100	54	100	118	100

As per Table 4.3, majority of the respondents had attained secondary level of education, with 46.9% (n=30) of AGYW and 48.1% (n=26) of ABYM reporting this level. These numbers suggests that secondary school enrolment is moderately high among adolescents and young people in both counties, likely reflecting the outcomes of national policies of subsidized secondary education fees. When it comes to the transition to the tertiary levels, however, a transition gap becomes very evident, as the numbers drip significantly. Only 26.6% (n=17) of AGYW had reached the tertiary level compared to 24.1% (n=13) of ABYM. The slightly higher attainment among females may indicate the impact of girl-focused educational support programs such as bursaries and gender-based scholarships that encourage AGYW to pursue post-secondary education. Nevertheless, the fact that less than one-third of respondents (n=30) advanced beyond secondary school suggests the presence of barriers to higher education.

Primary education levels were reported by 21.9% (n=14) of AGYW and 24.1% (n=13) of ABYM. These numbers may point to early school dropouts, especially among ABYM. Early and adolescent pregnancy tied to high rates of early marriage especially in rural parts of Kisumu and Homa bay counties deny many girls an opportunity to pursue secondary school education. Local surveys from rural Nyanza document that teenage pregnancy often ends formal education through stigma, household expectations, or the burden of childcare. These dynamics are particularly visible in Homa Bay and Kisumu where teenage pregnancy and early marriage remain more common than in other regions (Hilton Foundation, 2022). Adolescent boys may be drawn into informal work sectors such as fishing and *'boda boda'* (commercial motorbike sector). These boys lack academic motivation due to weak support systems alongside other factors and inequalities.

Only 4.7% (n=3) of AGYW and 3.7% (n=2) of ABYM in this study reported having no formal education. These low figures indicate that universal access to basic education is almost being realized. For these 5 respondents the lack of formal education could have been due to various factors including a composite of economic, social, cultural, and structural

barriers. Despite the existence of free primary education policy in Kenya, families still struggle to raise money for academic requirements set by the schools such as uniforms, books, examination fees, and transport (*Ngatia et al.,* 2020). These direct academic costs related to are major obstacles to school retention especially with the newly introduced Competency Based Curriculum (CBC). It is not surprising that in the rural households, these costs compete with immediate subsistence and basic needs. Parents give priority to short-term income generating activities such as child labour exploitation over continued schooling for children. Kisumu County Government (2023) planning documents and IPF Global / County Research (2022) regional data for Homa Bay highlight gaps between primary enrolment and secondary completion. These findings could also reveal that most children drop out of school because of these economic burdens. Cultural practices and perceived value of education also shaped decisions at the household level as highlighted by the participants in the FGDs. In some families, girls are assigned domestic chores and farming duties, which lowers their educational uptake (Ngatia *et al*., 2020). As Homa Bay is mostly rural areas and with the challenges highlighted, the county has a high population with little or no formal education. National survey analysis also links lower educational attainment to regions with entrenched poverty and weaker social services (KNBS, 2023).

The results of this section of survey not only reveal a relatively educated youth population but also highlight a gap between males and females in terms of education. Adolescent girls and young women face risks of school discontinuation due to social pressures such as early marriage and pregnancy. On the other hand, the boys and young men are more likely to drop out due to economic responsibilities or low academic engagement. These education patterns have direct implications on HIV susceptibility. Lower educational levels are associated with increased risk behaviours**,** reduced access to HIV information, and limited health-seeking behaviour, particularly in young men (Fisher, 2011).

4.2.4 Respondent's employment status

Table 4.4: Respondents' employment status

Employment status	Frequency	Percentage
Formal employment	18	16.2
Informal employment	26	23.4
Self-employment	30	27
Unemployed	37	33.3
Total	111	100

At the discretion of the researcher, seven respondents aged 15-18 were excluded from this section because they were under 18 and therefore could not legally obtain a job or earn income. The jobs and work conditions of adolescents and young people show clear social and economic glitches that increase their risk of HIV. A significant 33.3% (n=37) of respondents had no work, most of them being adolescent girls and young women. Lack of employment increases financial dependence. This can push some AGYW into transactional sex or relationships with older partners, raising their HIV risk.

Informal work made up 23.4% (n=26) of respondents and was more common among adolescent boys and young men (ABYM). Examples include '*boda boda'* riding, casual labour, small-scale fishing and fish vending. 'Though these jobs earn some income, they usually pay little. They are unstable and often do not include health benefits'. One FGD participant said.

27% of the respondents reported that they were self-employed out of preference and some due to the inadequate employment opportunities in the counties. These young people run small-scale businesses such as tailoring, farming and salons. This displays entrepreneurial effort and some financial independence. However, their earnings are often meagre and irregular. This can make it hard for them to get steady HIV prevention and treatment services.

Only 16.2% (n=18) said they had formal jobs. Formal jobs usually offer steady income, health benefits and sometimes workplace HIV awareness programs. Very few young people had these benefits or even access to these opportunities. Those with formal work are more likely to access prevention and care because of their economic stability and contact with institutions.

The findings of this section of the survey highlight clear gender differences. Adolescent girls and young women were overrepresented among the unemployed. This increases their social and economic vulnerability and also limits their power to make safer sexual health choices. On the other hand, adolescent boys and young men were more present in informal and self-employment. Even with some income, they face risks from peer pressure, substance use, and poor access to reproductive health services.

Overall, employment status strongly shapes the social and economic factors linked to HIV risk (Leporatti *et al*., 2024). This issue requires coordinated local action from the county youth departments. Tackling unemployment and economic instability among young people must be part of HIV prevention efforts in Kisumu and Homa Bay counties and beyond.

4.2.5 HIV testing among respondents

Impressively, a total of 95 participants indicated that they had been tested for HIV, either through outreaches or facility walk in, some participants (19%, n=23) disclosed having never undergone an HIV test as summarized in Table 4.5.

Table 4.5: HIV testing among respondents

Status	Frequency	Percentage
Tested	95	81
Not Tested	23	19
Total	118	100

These findings suggest fairly high awareness and sensitization, accessibility of testing services and test kits and the agency of the young people to know their HIV status. It also shows gains from community outreach, youth-friendly clinics, and national campaigns that promote testing. Nonetheless, some of the respondents forming part of the 19% that had never been tested were below 18 years and therefore could not legally consent to HIV testing .Some of the individuals who had not tested also expressed dis interest in testing citing that they have no need to worry, this was a dangerous notion as they could unknowingly transmit or contract HIV. The risk of HIV transmission is high in this group especially if they engage in unprotected sex with someone who is not virally suppressed or have multiple partners. Stigma, fear of the test result, cultural beliefs, and lack of youth-friendly services were further revealed as some of the reasons why they were not tested.

Just like the other indicators monitored in this study, gender gaps in HIV testing were evident. Adolescent boys and young men (ABYM) are less represented among those tested because they seek health care less often and connect poorly with health services (UNAIDS, 2017). Conversely, adolescent girls and young women in Kisumu and Homa Bay counties test for HIV at higher rates than boys. This is probably due to several reasons. A major structural driver is antenatal care (ANC) which ensures almost all pregnant women who attend Antenatal Care are tested for HIV. This solitary entry point raises testing coverage among females of reproductive age far above that of males, who lack an equivalent routine health encounter (Kenya National Bureau of Statistics [KNBS], 2023). Secondly, county-level HIV burden and targeted programming amplify female testing. Homa Bay and Kisumu are among Kenya's highest-prevalence areas and have long received focused resources including community campaigns, adolescent-girl–young-women programs and scaled-up

prevention services. These resources deliberately prioritize girls and young women because they bear a disproportionate share of new infections. According to PrEP Framework (2023), the outreach efforts such as mobile events, home-based campaigns, and youth-friendly services increase opportunities for girls to test compared with boys who are less often reached by these modalities.

Social and behavioural factors also influence HIV test uptake. Girls and young women are often more engaged with health services through maternal and reproductive-health pathways and may be more likely to accept testing when services are offered. On the other hand, masculine norms and concerns about stigma discourage many boys and men from seeking HIV testing or from attending public testing clinics. Inwani *et al*. (2020) demonstrated that women and adolescent girls from western Kenya often prefer community-based or self-testing options that protect confidentiality and fit their everyday lives. These options have expanded in Homa Bay and Kisumu and helped raise female testing uptake. Finally, epidemiological realities influence demand. Higher measured HIV prevalence among young women in Nyanza has driven intensified testing and prevention targeting to AGYW. Where girls are known to be at high risk, programmes invest in recruitment, incentives and service models that are effective at enrolling females. This in turn increases the apparent gap between female and male testing rates (National AIDS and STIs Control Programme [NASCOP], 2022).

4.3 Prevalence of HIV adolescents and young people in Kisumu and Homa Bay counties

The data on HIV prevalence among ABYM and AGYW in Kisumu and Homa Bay counties reveal significant disparities in prevalence rates, both across genders and between the two counties. In Kisumu County, the prevalence among AGYW stands at 16.1%, compared to 9.6% among ABYM. This translates to a total prevalence of 12.8% for adolescents and young people aged 15–24 years. In Homa Bay County, the figures are slightly lower, with AGYW showing a prevalence of 14.9% and ABYM at 8.5%, culminating in a total prevalence of 11.7%, as presented in Table 4.6.

Table 4.6: Prevalence of HIV among respondents

County	ABYM	AGYW	TOTAL
Kisumu	9.6	16.1	12.8
Homa Bay	8.5	14.9	11.7

Young women in Kenya's Nyanza region face far higher HIV infection rates than young men. For example, in 2017 Homa Bay County's adult HIV prevalence was ~20.7%, with women ~27.4% vs. men ~23.7% (Abraham 2017; UNAIDS, 2023). Kisumu County's adult prevalence was ~16.3%: women ~20.6% and men ~17.8% (UNAIDS, 2024), compared to a 4.9% national average: women 5.2% vs men 4.5% (UNAIDS, 2024). National surveys confirm that HIV prevalence among young women is roughly 2× higher than among young men, and among ages 20–34 it is ~3× higher (UNAIDS, 2024). In fact, young women (15–24) accounted for one-third of new adult HIV infections in 2017(UNAIDS, 2023). The disparity is especially conspicuous in Kisumu and Homa Bay: These two counties alone contributed to thousands of new infections among youth in 2017; 1,852 in Homa Bay and 1,630 in Kisumu (UNAIDS 2023).

The survey shows that there are more young women living with HIV/AIDS compared to young men. In Kisumu and Homa Bay, AGYW are almost twice as likely to have HIV as ABYM. This echoes national and sub-Saharan patterns. Young women face higher risk because of poverty and their biological and cultural acuities (Charbit *et al*., 2023). Kisumu and Homa Bay counties exhibit significant levels of poverty and very few opportunities for formal employment. Unfortunately, due to climate change, the traditional economic activities such as fishing and farming are negatively affected and have limited production (Mose *et al*., 2025). In poor homesteads, young women may be forced into trading sex for basic things such as food, school fees, or sanitary pads. This is common in Homa Bay, where girls exchange 'sex for fish' or cash which exposes them to HIV and in most cases teenage pregnancies (UNICEF, 2020). These deals usually leave women with less negotiating power and autonomy. They find it hard to insist on use of condoms or getting prevention services. A study in Nairobi established that women who had sex for money or gifts had five times the odds of HIV infection (Abdhalah *et al*., 2018). Young men also suffer from poverty. They may use drugs or alcohol or have multiple sexual partners to display their masculinity. These behaviours increase their vulnerability to HIV and other Sexual Transmitted Infections.

Unemployment also increases risky behaviour that spreads HIV. Many ABYM engage in informal jobs like fishing or '*boda boda'* riding, which involve a lot of mobility. This has

often led to casual sex with little protection. Unstable income and scarce prospects can make young people feel hopeless and avoid health services. Jobless young women may drop out of school and rely on older men for money. That raises their risk of infection. Previous studies demonstrated that young women often look for older men who can provide financially (Abdhalah *et al*., 2018).

Lack of education is associated with a reduced extent of HIV knowledge. Girls who drop out of school know less about HIV prevention and may not undertake a test. Overall knowledge has improved, but gaps remain. In 2014 only about 73% of young women had correct prevention knowledge versus 82% of young men (UNAIDS, 2024). Parents' education and support matter too. Girls who live with single parents, especially in cases where mothers are absent, show higher risk behaviours. Therefore, lack of education and low empowerment make young women more vulnerable.

Local social and cultural practices increase HIV transmission, especially among AGYW. Practices such as widow inheritance and wife cleansing still occur. These often involve sex without prior HIV testing. These cultures are enforced by the community living in Kisumu and Homa bay counties. Young widows or orphaned girls may follow them to avoid humiliation. Societal norms and practices such as polygamy and having multiple concurrent sexual partners' increase how wide sexual networks spread hence raising the HIV transmission risks. The uptake of some effective HIV prevention interventions such Voluntary Medical Male circumcision is low in some places about 56% in Homa Bay due to social norms and the fear of losing community identity (the Luo ethnic community does not circumcise as a rite of passage) increasing exposure risk for men (Feddis *et al*., 2024).

Both counties are traditionally patriarchal and the entrenched gender norms exacerbate the HIV risk. Men hold more power in relationships. Young women often cannot ask for safer sex or health care without fear. Girls are taught to be submissive. Boys are taught to be dominant. Young women are often expected to follow their male partners on sexual matters (Abdhalah *et al*., 2018). Ideas like "*kamthetho*" ("no money, no love") show how money and relationships tie together. This pattern appears in Kenya as well as Tanzania. This leads to gender-based violence and coerced sex, both direct risks for HIV. At the same time, men may avoid testing or talking about sexual health because it is seen as weak.

Sexual and Reproductive Health clinics in Kisumu and Homa Bay have not always been friendly to the youth with poor health care provider attitudes. Many are located far away or focus mainly on adults and PMTCT. Programs like DREAMS and Zipline by Elton John

Foundation (EJAF) have tried to reach youth, especially young women, however these programmes were not sustainable and came to a halt due to the US Stop Work Order on foreign aid. Many rural and semi-urban facilities are not welcoming to young people. Girls may fear being labelled promiscuous if they seek testing or contraception. Boys may avoid clinics from shame or because they think health care is for women. Because of this, many young people remain undiagnosed and untreated, which sustain HIV transmission.

Stigma and wrong ideas about HIV still exist in many parts of Kisumu and Homa Bay. Even with awareness campaigns, families and schools often remain silent about sex and disease. Myths, for example, that healthy-looking people cannot have HIV or that circumcision removes the entire risk, make young people complacent. Young people then turn to peers or unreliable social media for information. That often makes the problem worse.

Gender based violence is widespread in Kenya and especially affects young women. One report noted that approximately 33% of Kenyan girls are raped by age 18, and about 22% of girls (15–19) describe first sex as forced (UNAIDS, 2024). In Nyanza, surveys find ~35% of ever-married women have suffered intimate partner violence (Abdhalah *et al*., 2018). Young women experiencing violence are at much higher HIV risk. For example, HIV-positive women in Nairobi were almost 2× more likely to have suffered physical partner violence than HIV-negative women (UNAIDS, 2024).

4.3.1 Perceptions on HIV prevalence among adolescents and young people in Kisumu and Homa Bay counties

This study also sought to know the perceptions of respondents on HIV infections among ABYM and AGYW in Kisumu and Homa Bay Counties. The results are summarized using a Likert-scale in Table 4.7.

Table 4.7: Likert-scale statements on HIV infections as perceived by the respondents

	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Total (%)
1	The rate of HIV transmission among is higher among young girls than young boys	2	5	8	45	40	100
2	There is extensive information about HIV infections	3	10	15	47	25	100
3	HIV testing services are easily accessible	5	12	20	43	20	100
4	Young boys use HIV testing services	10	25	30	25	10	100

	compared to young boys						
5	HIV stigma discourages young girls from seeking HIV testing services than boys	3	7	15	40	35	100
6	Myths and misconceptions about HIV transmission affects young girls more than young boys	4	10	20	38	28	100
7	Most young boys do not believe HIV is a threat to their health in comparison to young girls	5	15	25	35	20	100

Key: SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly Disagree

A significant majority of respondents (85%) agreed or strongly agreed that the rate of HIV transmission is higher among young girls than boys. This reflects a strong perception within Kisumu and Homa Bay counties that AGYW are at greater risk of contracting HIV. This belief probably results from many social, cultural, and financial challenges faced by young girls. These factors include GBV, transactional sex known as the 'sex for fish trade,' and major power imbalances in their relationships. Only a small group (7%) disagreed with this opinion. This outcome shows a widely acknowledged, gendered pattern of HIV risk (CDC, 2024).

72% of the survey participants expressed belief that a bulk of information exists about HIV infection. This suggests that public awareness campaigns, school-based classes, media coverage, and community outreach efforts have played a spirited role in spreading knowledge about HIV. However, 13% disagreed with this statement, and 15% remained neutral. This number is not insignificant as it shows a split pointing to gaps in how young people access or understand information on HIV, especially in rural or neglected areas. These clear gaps may slow down effective HIV prevention programs. They are particularly perilous for school dropouts or the marginalized populations.

63% of the respondents agreed that HIV testing services are accessible within the counties, only 17%, expressed disagreement while the remaining 20% felt neutral about the aspect. This indicates that while testing might be technically available, various obstacles may stop people from using it. Such barriers include long distance to clinics, lack of privacy, social stigma, or extreme fear. This result underscores the strong need to evaluate both the physical placement and the emotional safety of HIV testing sites. Participants were divided on whether young boys used HIV testing services more than young girls. About 35% agreed,

35% disagreed, and 30% were neutral. This split clearly shows a lack of public consensus. This may be due to a difference in personal experiences or observations reported within different communities. It also reflects great uncertainty regarding actual testing patterns based on gender. This demands official disaggregated testing data and specific actions to ensure fair service use for everyone.

Stigma was highlighted as key barrier to HIV testing with 75% of respondents agreeing that it discourages young girls from seeking HIV testing more often than it affects boys. This shows that despite high awareness and availability of services, cultural and social attitudes still block adolescent girls and young women (AGYW) from getting essential health care. Fear of being judged, facing blame, or social exclusion creates major hurdles. These obstacles must be removed through community education, youth-friendly facilities, and support programs led by peers.

Around 66% of the survey respondents agreed that there are several myths and misconceptions around the topic of HIV within the communities. These beliefs might include incorrect ideas about how HIV spreads. They may also include cultural rules that prevent open discussion of sexual health matters. The data implies that AGYW are generally more vulnerable to receiving and believing misinformation. This emphasizes the urgent need for clear, accurate, age-appropriate, and gender-sensitive HIV education.

55% of the study participants expressed concern that boys do not consider HIV a serious threat to their personal health when compared to girls. This serious perception may be evidence of lower personal risk assessment among adolescent boys and young men (ABYM). This lack of concern is likely linked to strong peer influence, rigid societal norms defining masculinity, or inadequate specialized education. This underestimation of risk could contribute to risky sexual behaviours and delayed testing and should be countered by programs aimed at reshaping boys' understanding of HIV vulnerability.

4.4 Risk factors contributing to HIV incidence among adolescent girls and young women and adolescent boys and young men

This study sought to know the rating of and understanding of risk factors that contribute to HIV infections among ABYM and AGYW in Kisumu and Homa Bay Counties. The results are summarized in Table 4.8.

Table 4.8: Risk factors contributing to HIV according to respondents

	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	TOTAL (%)
1	Most boys do not prefer using protective measures during sexual intercourse	5	7	15	40	33	100
2	Peer pressure plays a significant role in risky sexual behaviour among young boys as compared to young girls	4	10	10	45	31	100
3	Young people's sexual behaviours are influenced by cultural and societal norms that may increase HIV risk.	3	5	12	50	30	100
4	There is a high level of misinformation about HIV and its transmission among young people.	6	9	15	42	28	100
5	Young girls are more vulnerable to HIV infection due to SGBV compared to boys	2	4	9	43	42	100
6	Drugs and substance abuse among young boys predisposes young to HIV compared to young girls	3	8	10	47	32	100
7	Financial dependency among young girls predisposes then to HIV infection more than young boys	2	5	10	44	39	100
8	Exposure to social media and digital platform exposes young people to HIV risks	5	10	14	43	28	100

Key: SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly Disagree

Majority of respondents (73%) agreed or strongly agreed that most boys do not prefer using protective measures during sexual intercourse, with 40% agreeing and 33% strongly agreeing. Low condom use in young men raises HIV risk. Only 12% disagreed. This mutual view indicates that awareness on the correct use of condoms for boys should be promoted.

An enormous 76% of the study participants agreed that peer pressure causes risky sexual patterns, especially for boys. These finding highlights that sexual risk among youth is social

hence there is a crucial need to reach the young people through their peers by investing in peer-led solutions as recommended by the participants.

Majority (80%) agreed that community rules and culture affect young people's sex lives therefore highlighting the culture as a key influence in HIV prevention interventions.

Most of the participants agreed that young people have many wrong facts about how HIV spreads proving that big gaps exist in the access to HIV knowledge. There is need to introduce CSE and better sex education and focused campaigns to counter the misformation that lead to risky behaviour.

A shocking 85% said young women are more likely to get HIV because of sexual violence. This shows a widespread understanding of the power difference in sex (CDC, 2024). Only 6% disagreed. This result confirms the need to revamp violence prevention to all HIV programs for young women.

79% agreed that young men's drug or alcohol use raises their HIV risk more than it does for women. These numbers affirmed that alcohol and substance abuse co-relates to risk patterns exposing them to HIV especially the boys and young men. This is likely due to more risky behaviours like unprotected sex. Prevention plans for youth must include dealing with drug and alcohol use.

83% responded that financial need makes women more prone to HIV than men. This backs up the idea that economic struggle forces women into sex for money or with older partners. Only 7% disagreed. This confirms that programs to help young women gain money power are essential to lowering HIV risk.

Around 71% of people thought that social media exposure raises HIV risk for youth. With 43% agreeing and 28% strongly agreeing, this perception reflects concerns about youth accessing sexually explicit or misleading content online, which may influence risky sexual behaviour. This highlights a growing area for digital literacy and online behaviour interventions in HIV prevention efforts.

4.5 Effectiveness of HIV prevention strategies among adolescent girls and young women and adolescent boys and young men

This study also sought to find out the effectiveness of HIV prevention strategies among AGYW and ABYM and responses analysed as per the Likert-scale in Table 4.9.

Table 4.9: Effectiveness of HIV prevention strategies according to respondents

	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	TOTAL (%)
1	The availability of HIV prevention methods (e.g., condoms, PrEP) is adequate for young people.	6	10	18	42	24	100
2	There are sufficient education and awareness about HIV prevention among young people	4	9	15	45	27	100
3	Access to HIV testing and counselling services is easy for young people in my community.	7	12	20	38	23	100
4	The government is doing enough to address HIV prevention among young people.	10	18	22	30	20	100
5	Sexual health education is an effective tool in HIV prevention	2	5	10	48	35	100
6	Media and community-based interventions are effective in ensuring prevention of HIV among young people	3	6	15	47	29	100
7	Deconstruction of cultural practices and beliefs has been effective in HIV prevention	5	11	22	40	22	100
8	Programme addressing social and economic risk factors have effectively prevented HIV transmission	4	8	18	46	24	100

Key: SD-Strongly Disagree, D-Disagree, N-Neutral, A-Agree, and SA-Strongly Agree

Most of the study respondents (66%) agreed (42%) or strongly agreed (24%) that young people can easily get HIV prevention tools like condoms and PrEP. However, 16% disagreed and 18% remained neutral. This shows moderate satisfaction with availability of HIV prevention tools, but also a possible gap in access. This gap is likely in rural or ignored areas.

72% that there are good teaching and awareness about HIV prevention for young people in school and in the community for the overall population. Only 13% disagreed, and 15%

were neutral. These results mean that HIV classes, maybe in schools, clinics, and media, are reaching most youth.

61% of the respondents confirmed that HIV testing and counselling is easy to reach in their locality. Yet, 19% disagreed and 20% were neutral showing that while over half of youth see HIV help as accessible, nearly 40% are not sure or disagree.

Only half of the respondents (50%) agreed that the government is doing enough to stop HIV in youth. 28% disagreed, and 22% were neutral. This evident lack of trust in government programs might be due to low funding, bad services for youth, or a gap between national plans and local work (Kamau *et al*., 2025).

83% supported that sex health education works well to stop HIV whereas only 7% disagreed and 10% stayed neutral hence strongly supporting that clear, age-appropriate sex education is key to safer behaviour and cutting HIV spread in young adults. Media and community efforts were also confirmed to play a crucial role in the HIV response by providing information help stop HIV infections. This amplifies the importance of mass and social media, local leaders, and youth-friendly talks to spread awareness and lessen stigma and discrimination.

62% of the participants agreed that changing old cultural ideas would help to lower the HIV epidemic. Conversely, 16% disagreed and 22% were neutral. This mixed view shows that while progress is being made against bad norms like young marriage or sex silence, some communities still resist. This area needs constant work and sensitive plans.

Finally, a total of 70% of the respondents confirmed that programs aimed at fixing social and money risks such as; poverty, joblessness and gender problems have helped lower HIV hence laying further emphasis on the need for holistic HIV prevention interventions.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

As set out in chapter one, this study had three objectives; to determine the HIV prevalence of adolescents and young people in Kisumu and Homa Bay counties, to identify risk factors that increase HIV infection in these groups and to study how well current HIV prevention measures work for young people. This chapter provides a summary of the findings, conclusions and set of recommendations gathered from the field as per the set objectives.

Objective 1: To determine the prevalence of HIV among adolescents and young people in Kisumu and Homa Bay Counties in Kenya

Objective 2: To identify the risk factors contributing to HIV incidence among adolescents and young people in Kisumu and Homa Bay Counties in Kenya

Objective 3: To investigate the effectiveness of existing HIV prevention strategies among adolescents and young People in Kisumu and Homa Bay Counties in Kenya.

5.2 Summary of findings

5.2.1 Objective 1

The survey sample comprised of 118 respondents, aged 15 to 24. They were split between two ages (15-19: 47.5%; 20-24: 52.5%). This gave a balanced base to compare younger and older youth as well as to apply a gendered lens to understand the prevalence between the binary genders from both counties. HIV estimates demonstrated a clear, gendered problem: adolescent girls and young women have higher HIV prevalence than their male peers globally and the study ascertained the same in both counties. The thesis frames these findings as per the objectives (UNAIDS, 2025).

The prevalence patterns were interpreted against the age distribution and socio-economic profile of respondents. A higher HIV prevalence was observed in the 20-24 year-old age bracket. Individuals in this age bracket are more likely to be sexually active, have experienced relationship transitions, and engage in economic activities that increase risk. Though HIV infections were high among all youth groups, it was noted that it disproportionately affects AGYW because of intersecting vulnerabilities which include biological susceptibility, transactional relationships, and gendered power imbalances. The respondents' demographic and employment data e.g. 38% unemployed; informal/self-

employment explain how economic pressure and livelihood strategies contribute to sexual risk behaviours and therefore prevalence.

5.2.2 Objective 2

High unemployment (38%) and a substantial share in informal/self-employment create economic vulnerability. Economic need buttresses transactional sex and intergenerational relationships reported in focussed group discussions. The majority of the respondents reported secondary education (47.5%), but tertiary transition was limited. Education level influences knowledge, negotiation power and access to services. School dropout linked to pregnancy, marriage and poverty emerged as a recurrent risk pathway. Gender-based violence, unequal negotiating power in sexual relationships, and coercion featured prominently in qualitative accounts as immediate risk multipliers for AGYW. Behavioural factors such as lower condom use, male peer norms encouraging risk, early sexual debut, and substance use, reported more among ABYM, were identified as proximal behaviours increasing HIV exposure.

Service-related & structural barriers such as stigma, confidentiality concerns, mixed views on service accessibility and under-utilisation of youth-friendly services limit testing and prevention uptake. The study reported that while a majority recognise information and services as available, significant minorities remain neutral or disagree, indicating access gaps and trust deficits.

HIV risk is multi-level; individual behaviours are strongly shaped by interpersonal and structural contexts. Economic vulnerability and gender inequality sit at the centre of AGYW risk, while male risk is shaped by masculinity norms and lower help-seeking habits. Structural factors such as education, employment and cultural norms mediate both exposure and the capacity to adopt protective behaviours (e.g., PrEP, consistent condom use, early testing). The mixed-methods design allowed triangulation: quantitative prevalence and demographic patterns matched qualitative narratives describing transactional sex, GBV, and service barriers.

5.2.3 Objective 3

Respondents reported relatively high perceived effectiveness for media and community-based interventions (≈76% agreed), and many noted that programmes addressing socio-economic factors have had positive effects (≈70%). However, only about 62% concurred that abolishing of cultural beliefs has been effective, indicating mixed perceptions on cultural

change. The thesis highlights existing programmes such as DREAMS and national prevention efforts. It is worth noting that while these programmes have produced gains in awareness and service availability, imperative gaps persist in scale, targeting, and service acceptability for youth, particularly for AGYW.

Prevention efforts have produced measurable awareness and some behaviour change, as reported by participants; yet structural gaps (poverty, GBV, cultural resistance) reduce their impact. Programmes that combine biomedical tools (PrEP, testing, ART) with social protection and normative change are perceived to be more effective. However, the mixed ratings on cultural deconstruction show that community norm remains a stubborn barrier requiring long-term, locally led engagement.

5.3 Conclusions

5.3.1 Objective 1

HIV prevalence among adolescent and young people in Kisumu and Homa-Bay remains way too high and is increasingly gendered. Adolescent girls and young women bear a heavier burden.

There is limited age sensitive localized and disaggregated data on HIV prevalence in the two counties.

5.3.2 Objective 2

HIV vulnerability among youth in Kisumu and Homa-Bay emerges from interplay of economic, social, cultural and behavioural factors.

5.3.3 Objective 3

Existing prevention strategies are partially effective. Multi-component interventions that combine biomedical prevention with economic support and normative change show the most promise, but scale and sustainability remain challenges.

Most of the existing HIV prevention programs in both counties are donor supported through civil society organizations and the county departments of health. This exposes a dire need for the increased resources at country level.

5.4 Recommendations

5.4.1 Objective 1

The county government ministry of health should:

i. Lead in the generation of age and sex specific data for the young people in all diversity for trends for 15–19 and 20–24 groups separately. This can be done through development of reporting templates for the facilities or through localised health indicator surveys.
ii. Prioritize resource allocation to Kisumu and Homa-Bay for adolescents and young people led HIV prevention programmes, with special attention to interventions targeting 20–24-year-olds who show higher exposure to the virus.

5.4.2 Objective 2

To address HIV risk factors among this population several stakeholders should come in to reduce the risk factors.

Donors and Ministry of Health:

i. Invest in holistic, innovative and youth-led programmes including integration of cash transfers, bursaries, and livelihood programmes for AGYW to reduce reliance on transactional sex.
ii. Scale community-based GBV prevention, strengthen safe reporting pathways and provide survivor-centred services integrated with HIV testing and PEP/ART linkage.
iii. Invest in male-friendly outreach strategies such as peer-to-peer approaches, workplace/mobile testing, male circumcision, substance use counselling to increase testing and reduce risk behaviours among ABYM.
iv. Work in conjunction with ministry of education to support school-retention policies and programmes, especially for girls, and strengthen comprehensive sexuality education at both school and community levels.
v. Support civil society including youth-led organizations to lead advocacy against harmful gender and social norms to advance positive masculinity and lead campaigns against HIV stigma and discrimination.

5.4.3 Objective 3

The existing HIV prevention programmes can be made more efficient by the donors and county governments through:

i. Scale up of integrated approaches e.g., combine PrEP roll-out with cash/economic programmes, GBV services and youth-friendly clinics.
ii. Use mass, social media and community platforms (which respondents find effective) to reduce stigma and improve knowledge about PrEP, testing, and confidentiality.
iii. The is a crucial need to vigorously evaluate county-level interventions such as DREAMS adaptations and PrEP delivery models using age-/sex-disaggregated indicators to identify what works locally.

5.4.4 Further research

i. There is a need for updated data on school retention and completion, transactional relationships, and partner age disparities among adolescents and young people in Kisumu and Homa Bay Counties.
ii. Further research should also focus on local evidence for ART availability, uptake and adherence, particularly in the light of the recently imposed United States of America (USA) freeze on funding towards various health-related organizations in Kenya and globally at large. Programmes such as DREAMS and PEPFAR that were fully funded by the American people have come to an indefinite stop hence the risk of losing the gains made in this regard.

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APPENDICES

Appendix I: Consent form

Title of the Study: ANALYSIS OF PREVALENCE AND HIV RISK FACTORS AMONG ADOLESCENTS AND YOUNG PEOPLE IN KISUMU AND HOMA BAY COUNTIES, KENYA

Introduction:

You are invited to participate in a research study conducted by Joyce Ouma, a student at Egerton University, as part of a Master's Degree in Gender, Women and Development Studies. The purpose of this study is to understand the differences in HIV incidence rates between adolescent girls and young women (AGYW) and adolescent boys and young men (ABYM) aged 15–24 years in Kenya. This study will help us to better understand the factors contributing to the vulnerability of young people to HIV infection and to develop better strategies for prevention and treatment.

Purpose of the Study:

The study aims to:

- Compare HIV prevalence rates between adolescent boys and young men and adolescent girls and young women within the ages of 15-24
- Identify the social, economic, and behavioural factors contributing to HIV transmission.
- Assess access to and effectiveness of HIV prevention services for young people.
- Make recommendations for improving HIV prevention strategies among adolescents and young people.

What You Will Be Asked to Do:

If you agree to participate, you will be asked to complete a questionnaire, which will take approximately 30 minutes. You may also be invited to participate in an interview or focus group discussion, which will last about 45 minutes. You are free to skip any questions that you do not wish to answer.

Risks and Benefits:

There are no foreseeable risks to you from participating in this study. Your participation will help contribute to a better understanding of HIV prevention efforts for young people in Kenya. You will not receive any payment or financial reward for participating.

Confidentiality:

Your responses will remain confidential. All data collected will be stored securely and used only for research purposes. No identifying information will be shared in the report or publications.

Voluntary Participation:

Your participation in this study is completely voluntary. You are free to withdraw at any time, without penalty or loss of benefits, by informing the researcher. You are also free to decline to answer any questions.

Contact Information:

If you have any questions about this study, please contact Joyce Ouma. For concerns about your rights as a research participant please feel free to contact Egerton University.

Consent:

By signing below, you are agreeing to participate in this research study, and you acknowledge that you understand the purpose, procedures, risks, and benefits of this study.

Sign: _____ Date: _____

Appendix II: Semi-structured questionnaire for respondents

You are invited to participate in a research study conducted by Joyce Ouma a student at Egerton University, as part of a Master's Degree in Gender, Women and Development Studies. The purpose of this study is to understand the differences in HIV incidence rates between adolescent girls and young women (AGYW) and adolescent boys and young men (ABYM) aged 15–24 years in Kenya. This study will help us to better understand the factors contributing to the vulnerability of young people to HIV infection and to develop better strategies for prevention and treatment.

INSTRUCTIONS: PLEASE TICK THE RESPONSE THAT APPLIES TO YOU

Section A: General Information

1. Please indicate your gender Male [ ] Female [ ]

2. What is your age bracket?

15–19 years [ ] 20–24 years [ ]

3. Education level:

Primary [ ] Secondary [ ] Tertiary [ ] None [ ]

4. Marital status:

Single [ ] Married [ ] Divorced [ ] Separated [ ] Widowed [ ]

5. Place of residence:

Urban [ ] Rural [ ]

6. Employment status

Formal employment [ ] Informal employment [ ] Self-employment [ ] Unemployed [ ]

7. Family size

3 and below [ ] 4-6[ ] 7-9 [ ] Above 10 [ ]

8. Have you ever tested for HIV/AIDS?

Yes [ ] No [ ]

Section B: Incidence Rates of HIV among AGYW and ABYM

9. Are you aware of your HIV status?

Yes [ ] No [ ]

10. On a five-point Likert-scale where SD-strongly disagree, D-disagree, N-neutral, A-agree, and SA-strongly agree, please evaluate the extent to which you agree with the provided statement.

		SD	D	N	A	SA
1	The rate of HIV transmission among is higher among young girls than young boys					
2	There is extensive information about HIV infections					
3	HIV testing services are easily accessible					
4	Young boys use HIV testing services compared to young boys					
5	HIV stigma discourages young girls from seeking HIV testing services than boys					
6	Myths and misconceptions about HIV transmission affects young girls more than young boys					
7	Most young boys do not believe HIV is a threat to their health in comparison to young girls					

Section C: Risk factors contributing to HIV incidence among adolescent girls and young women and adolescent boys and young men

On a five-point Likert-scale where SD-strongly disagree, D-disagree, N-neutral, A-agree, and SA-strongly agree, please evaluate the extent to which you agree with the provided statement.

		SD	D	N	A	SA
1	Most boys do not prefer using protective measures during sexual intercourse					
2	Peer pressure plays a significant role in risky sexual behavior among young boys as compared to young girls					
3	Young people's sexual behaviors are influenced by cultural and societal norms that may increase HIV risk.					
4	There is a high level of misinformation about HIV and its transmission among young people.					
5	Young girls are more vulnerable to HIV infection due to SGBV compared to boys					
6	Drugs and substance abuse among young boys predisposes young to HIV compared to young girls					
7	Financial dependency among young girls predisposes then to HIV					

	infection more than young boys					
8	Exposure to social media and digital platform exposes young people to HIV risks					

Section D: Effectiveness of HIV Prevention Strategies among adolescent girls and young women and adolescent boys and young men

On a five-point Likert-scale where SD-strongly disagree, D-disagree, N-neutral, A-agree, and SA-strongly agree, please evaluate the extent to which you agree with the provided statement.

		SD	D	N	A	SA
1	The availability of HIV prevention methods (e.g., condoms, PrEP) is adequate for young people.					
2	There is sufficient education and awareness about HIV prevention among young people					
3	Access to HIV testing and counseling services is easy for young people in my community.					
4	The government is doing enough to address HIV prevention among young people.					
5	Sexual health education is an effective tool in HIV prevention					
6	Media and community based interventions are effective in ensuring prevention of HIV among young people					
7	Deconstruction of cultural practices and beliefs has been effective in HIV prevention					
8	Programme addressing social and economic risk factors have effectively prevented HIV transmission					

Section 5: General Opinions

What challenges do you face in accessing HIV prevention services?

In your opinion, what can be done to reduce HIV infections among young people in your community?

Appendix III: Key informant questionnaire

Introduction:

The following questions are intended for healthcare providers, community leaders, and policymakers who are involved in HIV prevention and treatment among young people in Kenya. The purpose is to gather information on HIV prevention strategies, barriers, and recommendations for improving HIV prevention among AGYW and ABYM.

Section 1: HIV prevention efforts

What are the primary strategies currently in place for preventing HIV among adolescents and young people in your community/region?

Are there any specific programs targeting AGYW and ABYM for HIV prevention? If so, please describe them.

How effective do you think these programs have been in reducing HIV incidence among young people?

Section 2: barriers and challenges

What are the main barriers young people face in accessing HIV prevention services in your area?

Are there any socio-cultural factors that make it more difficult for AGYW to access HIV prevention services compared to ABYM?

What role does stigma play in preventing young people from accessing HIV testing and prevention services?

Section 3: Recommendations

In your opinion, what are the most important changes needed to improve HIV prevention among AGYW and ABYM in Kenya?

How can community-based interventions be strengthened to better address the needs of adolescents and young people at risk of HIV?

What role should schools and educational institutions play in HIV prevention among young people?

Are there any specific policies or interventions you believe should be implemented to reduce HIV incidence among AGYW and ABYM?

Conclusion:

Thank you for participating in this interview. Your insights will contribute to a better understanding of the challenges and opportunities for improving HIV prevention among adolescents and young people in Kenya.

Appendix IV: Graduate school approval letter

EGERTON
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OFFICE OF THE DIRECTOR GRADUATE SCHOOL

Ref GME11/14007/21

Date 25th August, 2025

Ms. Joyce Ouma
Dept. of Gender
Egerton University,

Dear Ms. Ouma,

RE: CORRECTED PROPOSAL

This is to acknowledge receipt of soft copies of your corrected proposal entitled **"Analysis of Prevalence and HIV Risk Factors Among Adolescents and Young People in Kisumu and Homabay Counties Kenya".**

You are now at liberty to commence your fieldwork. However note the following: -

1. You must register each semester.
2. Pay your fees every semester.
3. Submit progress reports every four (4) months (Masters) or six (6) months (PhDs). Without this, your thesis/project will not be accepted. Forms are available at the Board.
4. You are expected to publish one (1) paper (Masters) or two (2) papers (PhD) in peer-reviewed journal and present them before issuance of "Intent to Submit Thesis/Project" form by the Board.
5. Ensure that you include your **Egerton University email address** in your publication.

NB: Please provide a **HARD COPY** of the proposal duly signed by the supervisors for the file.

Thank you.
Yours sincerely,

Prof. Charles M. M'Erimba, Ph.D
DIRECTOR, DIRECTORATE OF POSTGRADUATE STUDIES

c.c. Director, Gender
Supervisors
Child's Dean

Transforming Lives Through Quality Education

Appendix V: EUREC approval letter

EGERTON UNIVERSITY

TEL: (051) 2217808 P. O. BOX 536

EGERTON UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICS REVIEW COMMITTEE

EU/RE/DIR/009

Approval No. EUISERC/APP/478/2025 ***8th August,* 2025**

Joyce Ouma

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Egerton- Njoro, Kenya

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Email: oumajoyce2@gmail.com

Dear Joyce,

RE:ANALYSIS OF PREVALENCE AND HIV RISK FACTORS AMONG YOUNG WOMEN AND YOUNG MEN IN KISUMU AND HOMA BAY COUNTIES, KENYA

This is to inform you that the ***Egerton University Institutional Scientific and Ethics Review Committee*** has reviewed and approved your above research proposal. Your application approval number is ***EUISERC/APP/478./2025***. The approval period is ***8th August 2025 – 9th August 2026***

This approval is subject to compliance with the following requirements:

i. Only approved documents including informed consents, study instruments, MTA) will be used.

ii. All changes including amendments, deviations, and violations are submitted for review and approval by ***Egerton University Institutional Scientific and Ethics Review Committee***.

iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***Egerton University Institutional Scientific and Ethics Review Committee*** within 72 hours of notification

iv. Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to ***Egerton University Institutional Scientific and Ethics Review Committee*** within 72 hours.

v. Clearance for Material Transfer of biological specimens must be obtained from relevant institutions.

vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.

vii. Submission of an executive summary report within 90 days upon completion of the study to ***Egerton University Institutional Scientific and Ethics Review Committee***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely.

EGERTON UNIVERSITY
Date 808/2025
RESEARCH ETHICS

Prof. Kennedy N. Ondimu PhD

CHAIRMAN, EUISERC

KO/BK/

Appendix VI: NACOSTI research permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 386882

Date of Issue: 02/September/2025

RESEARCH LICENSE

This is to Certify that Miss.. Joyce Amandi Ouma of Egerton University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Homabay, Kisumu, Siaya on the topic: ANALYSIS OF PREVALENCE AND HIV RISK FACTORS AMONG ADOLESCENTS AND YOUNG PEOPLE IN KISUMU AND HOMABAY COUNTIES, KENYA for the period ending : 02/September/2026.

License No: NACOSTI/P/25/41179078

386882

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions

Appendix VII: Abstract of published paper

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HIV PREVALENCE AND RISK FACTORS AMONG ADOLESCENTS AND YOUNG PEOPLE IN KISUMU AND HOMA BAY COUNTIES, KENYA

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Abstract: *This study assessed the burden of HIV among young people of age bracket of 15–24 years in Kisumu and Homa Bay counties, Kenya. Cross-sectional survey research design was employed, utilizing quantitative and qualitative approaches. A sample size of 118 was determined using Cochran's formula based on Kenya's HIV prevalence of 4%. Primary data was collected using structured questionnaires, while secondary data was obtained from county health records. Quantitative data were analysed using SPSS version 28 to generate descriptive statistics, frequencies, and percentages, while qualitative data were transcribed, coded, and thematically analysed to provide the context for behavioural and structural drivers. Findings revealed a persistent, gendered HIV burden, with Adolescent Girls and Young Women (AGYW), particularly aged 20–24, showing higher prevalence (15.5%) compared to Adolescent Boys and Young Men (ABYM). Major risk factors for AGYW included: socio-economic vulnerability, low transition to tertiary education, transactional and intergenerational relationships, and gender-based violence, while ABYM faced risks linked to masculine norms, substance use, and low health-seeking behaviour. Despite high awareness of available prevention methods, their effectiveness was hindered by stigma, confidentiality fears, inconsistent access to services, and sluggish cultural change. This study recommends integrated approaches that combine biomedical prevention with economic empowerment, youth-friendly services, and community engagement to reduce vulnerability and new infections.*

Keywords: *Adolescents HIV Prevalence, Young People HIV Prevalence HIV Risks factors, youth risk factors, gender disparities, risk factors*