The Syndemic Burden of HIV, Adolescent Pregnancy, and Gender-Based Violence Among Adolescents and Young People in Machakos County, Kenya

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ABSTRACT

Introduction: Adolescents and young people (AYP) aged 10–24 years face a disproportionate burden of HIV infection, teenage pregnancy (TP), and gender-based violence (GBV), collectively referred to as the "Triple Threat." These interconnected challenges significantly affect the health, social well-being, and future opportunities of young populations in sub-Saharan Africa. This study examined trends and patterns in HIV infection, TP, and GBV among AYP in Machakos County, Kenya.

Methods: A descriptive cross-sectional study was conducted using routine programmatic data collected between 2021 and 2025 in Machakos County. Data sources included HIV program databases, antenatal care registers, GBV reporting systems, and reproductive health service records. The study population included AYP aged 10–24 years. Data was cleaned and analyzed using descriptive statistics to assess trends in HIV incidence, viral load (VL) cascade indicators, TP rates, and GBV service utilization.

Results: In 2025, Machakos County reported 353 new HIV infections across all ages, including 97 among individuals aged 15–24 years. HIV incidence declined from 0.71 per 1,000 population in 2022 to 0.23 per 1,000 in 2025. AYP contributed approximately 35–38% of new infections throughout the study period. VL testing coverage among the 10–24-year age group was 26%. AYP accounted for 51% of antenatal care enrollments, with an average TP rate of 15%. A total of 572 GBV survivors sought services in 2025, but only 28% presented within the recommended 72-hour clinical window.

Conclusion: Despite declining HIV incidence and high viral suppression rates, AYP in Machakos County remain disproportionately affected by HIV infection, TP, and GBV. Strengthening integrated, youth-friendly health services, improving viral load monitoring coverage, expanding sexual and reproductive health education, and enhancing GBV prevention and response systems are critical for addressing these interconnected vulnerabilities and advancing adolescent health outcomes.

Keywords: Adolescents and Young People; HIV Infection; Teenage Pregnancy; Gender-Based Violence; Kenya

INTRODUCTION

According to the World Health Organization, Adolescents and Young People (AYP) are individuals aged 10–24 years, including young adolescents (10–19), older adolescents (15–19), and young adults (20–24) (WHO, 2024).

Globally, in 2024, about 370,000 young people aged 15–24 acquired HIV, including approximately 145,000 adolescents aged 15–19. An estimated 1 million adolescents (15–19) are living with HIV, and only 64% of adolescents aged 10–19 living with HIV were receiving antiretroviral therapy (ART) (UNAIDS, 2024). In Sub-Saharan Africa, the burden is particularly high, with about 860,000 adolescents aged 15–19 living with HIV.

Testing coverage also remains low in Eastern and Southern Africa, where only 29% of girls and 19% of boys aged 15–19 were tested for HIV and received results in the past 12 months, and adolescent girls bear a disproportionate share of new infections (UNAIDS, 2024).

In Kenya, Adolescents and young people (AYPs) represent a critical demographic group, both in terms of population size and vulnerability to adverse sexual and reproductive health outcomes(NSDCC, 2024). According to the 2019 Kenya Population and Housing Census, individuals aged 10–24 years constitute approximately 16 million people, representing 34% of the national population (KNBS, 2019). While this youthful demographic presents significant opportunities for socioeconomic development, it is also disproportionately affected by a cluster of interconnected health and social challenges, notably HIV infection, adolescent pregnancy, and sexual and gender-based violence (SGBV). Collectively, these three outcomes have been described as the "Triple Threat," reflecting their interrelated nature and their combined impact on the well-being and life trajectories of adolescents and young people, particularly adolescent girls and young women (AGYW)(Groves et al., 2022).

The persistence of the Triple Threat poses a significant barrier to achieving several Sustainable Development Goals (SDGs), including those related to health, gender equality, education, and poverty reduction (MOH-Kenya, 2024). HIV continues to represent a major public health challenge among adolescents and young people in Kenya. In 2022, an estimated 5,720 new HIV infections occurred among adolescent girls and young women aged 15–24 years, underscoring the disproportionate vulnerability of this population group. Adolescents also experience significant HIV-related mortality; in the same year, approximately 1,215 AIDS-related deaths were reported among adolescents aged 10–19 years, highlighting the continuing burden of the epidemic among young populations (UNAIDS, 2023).

Teenage pregnancy represents another critical dimension of the Triple Threat and is strongly associated with increased vulnerability to HIV infection. Early pregnancy often results from unprotected sexual activity, limited access to contraceptive services, and unequal power dynamics within sexual relationships (Maughan-Brown et al., 2025). Data from the Kenya Demographic and Health Survey (KDHS) 2022 indicate that 47% of women aged 20–24 years reported having experienced pregnancy during adolescence, with the proportion rising to as high as 76% in counties with HIV incidence exceeding 0.3% (KNBS, 2022). Furthermore, evidence from the same survey highlights a compelling association between educational attainment and teenage pregnancy, with four in ten women aged 15–19 years with no formal education reporting that they had ever been pregnant.

Sexual and gender-based violence further compounds these vulnerabilities. SGBV encompasses harmful acts perpetrated against individuals without their consent and is frequently driven by unequal gender norms, social power imbalances, and structural inequalities. Experiences of sexual or physical violence significantly increase the likelihood of HIV exposure through forced or coerced sexual encounters, reduced ability to negotiate safe sexual practices, and heightened psychosocial vulnerability (NSDCC, 2024). According to the KDHS 2022, approximately 17% of adolescent girls and young women reported experiencing sexual or physical violence within the previous 12 months (KNBS, 2022). National trends also reveal a worrying increase in reported cases of violence against children and adolescents. Between 2016 and 2023, reported cases of sexual and gender-based violence involving children and adolescents aged 10–17 years accounted for approximately 42% of all reported cases, representing more than 87,500 incidents nationally. In addition, a 2019 national survey found that 46% of women and 52% of men aged 18–24 years reported experiencing at least one form of violence during childhood, underscoring the widespread nature of violence affecting young populations (Maughan-Brown et al., 2025).

The co-occurrence of HIV infection, adolescent pregnancy, and sexual and gender-based violence is shaped by a complex interplay of structural, biomedical, socio-behavioural, and psychological determinants (NSDCC, 2024). Structural factors such as poverty, limited educational attainment, and child marriage increase adolescents' vulnerability by influencing sexual behaviour patterns including condomless sex, age-disparate relationships, multiple sexual partnerships and transactional sex. These risk behaviours, in turn, increase the likelihood of both HIV exposure and unintended pregnancies. Additionally, harmful gender norms and gender-inequitable attitudes contribute to power imbalances within relationships that limit adolescent girls' ability to negotiate safe sexual practices. Family and social environments also play a critical role; insufficient parental support, weak parent–child relationships, and limited monitoring have been associated with increased vulnerability to risky behaviours among adolescents (MOH-Kenya, 2024).

Addressing the Triple Threat requires multisectoral, integrated interventions targeting structural, behavioural, and biomedical determinants. These "development accelerators", such as promoting gender-equitable norms, strengthening parental support, and addressing household vulnerabilities; can simultaneously improve multiple outcomes and maximize impact amid declining funding for adolescent health and HIV programs (Mchenga et al., 2024).

At the county level, the Triple Threat reflects broader national patterns but is shaped by local demographic and social contexts. In Machakos County, 52% of the total population is aged 24 years and below, highlighting a significant adolescent and youth demographic (KNBS, 2019). Within this youthful population, the county continues to face challenges related to the Triple Threat of HIV vulnerability, teenage pregnancy, and gender-based violence, particularly among adolescent girls and young women. Adolescents aged 15–19 years constitute a notable proportion of maternal health service users, underscoring persistent concerns around early pregnancy and the need for strengthened adolescent sexual and reproductive health interventions (KHIS, 2022).

This paper therefore sought to provide an overview of HIV infection, gender-based violence and teenage pregnancy among adolescents and young people in Machakos County, drawing on national evidence and county programmatic data to highlight key vulnerabilities and opportunities for integrated adolescent health interventions.

METHODS

Study Design

This study employed a descriptive cross-sectional design to provide an overview of the co-occurrence of HIV infection, gender-based violence (GBV), and teenage pregnancy among adolescents and young people (AYPs) in Machakos County, Kenya.

Study Setting

The study was conducted in Machakos County, located in the former Eastern Province of Kenya. The county shares administrative boundaries with Nairobi County, Kiambu County, Murang'a County, Embu County, Kitui County, Makueni County, and Kajiado County. Its proximity to the capital and surrounding counties makes it an important corridor for population movement, economic activity, and access to health services within the region.

Based on data from the Kenya National Bureau of Statistics through the 2019 Kenya Population and Housing Census, Machakos County had an estimated population of 1,421,932 people. The county has a population density of approximately 177 persons per square kilometre and an average household size of 3.5 persons. Administratively, Machakos County is divided into nine sub-counties with varying settlement patterns and socio-economic characteristics. Machakos and Mavoko sub-counties are largely urban. Mavoko serves as a major industrial zone with several manufacturing industries and factories. Matungulu, Kangundo, and Kathiani sub-counties are mainly peri-urban, with communities engaged in both agricultural and non-agricultural economic activities. In contrast, Kalama, Mwala, Masinga, and Yatta sub-counties are predominantly rural, characterized by dispersed settlements and economies that rely largely on agriculture and small-scale trade.

The population structure of the county is largely youthful. Approximately 39.2% of residents are below 15 years of age, while 55.8% fall within the economically active age group of 15 to 64 years. Individuals aged 64 years and above account for about 5% of the population. The total fertility rate in the county is estimated at 3.4 children per woman, which is slightly lower than the national average. Educational attainment within the county shows moderate variation. About 58% of residents have completed primary school education, while approximately 27% have attained secondary education or higher. Health services in Machakos County are provided through a network of public and private health facilities.

The diversity in settlement patterns, socio economic conditions, and access to health services across the county provides an appropriate context for examining the co-occurrence of HIV infection, gender-based violence, and teenage pregnancy among adolescents and young people.

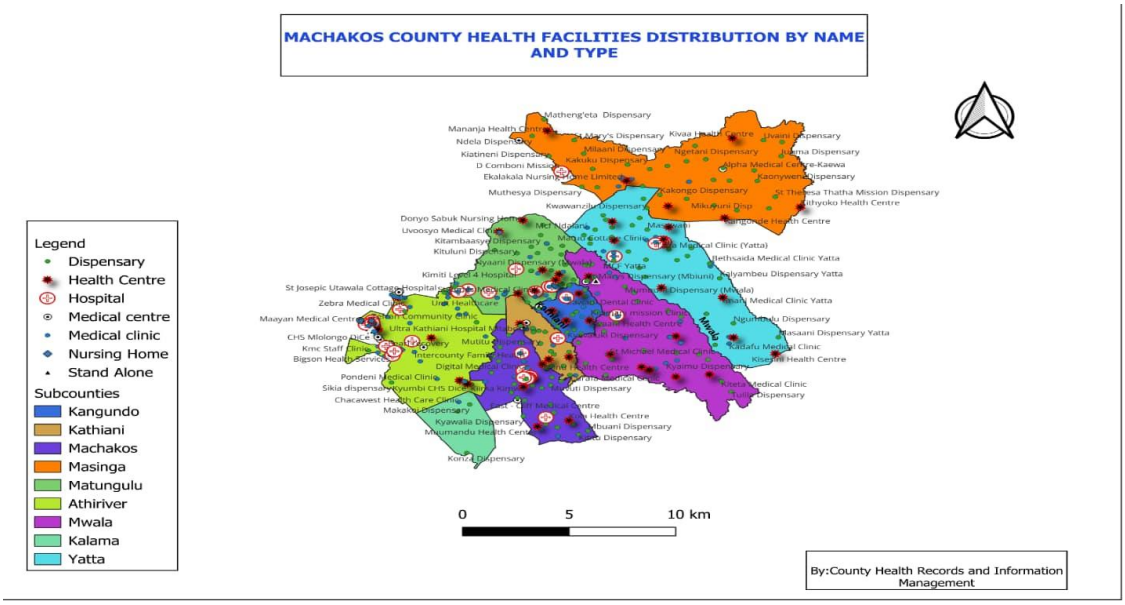


Figure 1: Map of Machakos County showing the 9 sub-counties

Study Population

The study focused on adolescents and young people aged 10–24 years, with particular attention to adolescent girls and young women (AGYW) who experience a disproportionate burden of HIV infection, GBV, and teenage pregnancy.

Inclusion Criteria

Records were included if they met the following criteria:

- individuals aged 10 to 24 years
- individuals with documented HIV testing results, gender-based violence reports, or pregnancy-related service records
- records captured within the defined study period.

Exclusion Criteria

Records were excluded if they contained:

- missing age information
- incomplete or inconsistent outcome data.

Data Sources

Data was obtained from routine health service databases and facility registers from 2021 to 2025 within Machakos County. The main data sources included:

- County Health Information System reports
- Routine health facility data on adolescent reproductive health services
- HIV program data for adolescents and young people
- Gender-based violence reporting systems

- National policy and strategic documents related to adolescent health

These datasets provided indicators related to HIV infection trends, adolescent pregnancy rates, and reported cases of gender-based violence among adolescents and young people.

Data Management

Extracted data were compiled into Microsoft Excel and cleaned before analysis. Data cleaning procedures included removal of duplicate records, verification of variable ranges, and management of missing values. Categorical variables were coded before analysis.

Study Variables

HIV infection: defined as a documented positive HIV test result recorded in facility registers or HIV program databases.

Gender based violence: defined as any documented report of physical, sexual, or emotional violence recorded in gender-based violence registers.

Teenage pregnancy: defined as a pregnancy recorded among females aged 10 to 19 years in antenatal care registers.

DATA ANALYSIS

Data was analyzed using descriptive analysis to examine trends and patterns in HIV infection, teenage pregnancy, and gender-based violence among adolescents and young people. Indicators were summarized using proportions and trends and presented in tables and graphs.

ETHICAL CONSIDERATIONS

Ethical approval for the study was obtained from the Institutional Research and Ethics Committee of Machakos County. Administrative permission will also be obtained from the Kenya Ministry of Health and the Machakos County Department of Health. The study relied on de identified routine program data, and no personal identifiers were included in the dataset. Data confidentiality and secure storage procedures were maintained throughout the study process.

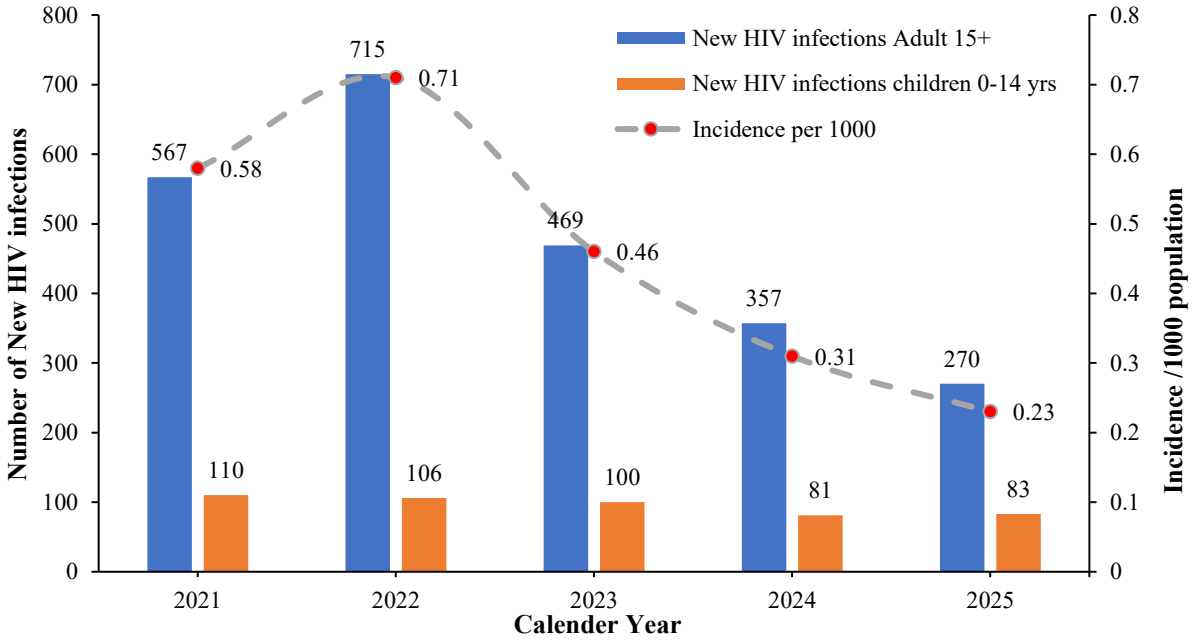
RESULTS

In 2025, a total of 353 new HIV infections were reported across all age groups. Of these infections 83 infections occurred among children aged 0 to 14 years, 270 infections occurred among adults aged 15 years and above. Within the adolescent and young adult population, 1,800 adolescents aged 10 to 19 years were living with HIV and 34 new infections occurred within this age group (Table 1).

Table 1: HIV burden among adolescents and young people

Age group	People living with HIV	New infections
0-14 years	1,383	83
10-19 years	1,800	34
15-24 years	2,725	97
All ages	35035	353

Trend of New HIV Infections



The incidence rate of HIV peaked at 0.71 per 1,000 population in 2022 before beginning a sustained decline to 0.23 per 1,000 population in 2025 (Figure 2).

Figure 2: The annual trend in new HIV infections together with the estimated HIV incidence per 1,000 population in Machakos County between 2021 and 2025.

Contribution of Adolescents and Young People to New HIV Infections, 2021–2025

The proportion of total infections contributed by adolescents and young people stood between 35-37% across the study period (Figure 3).

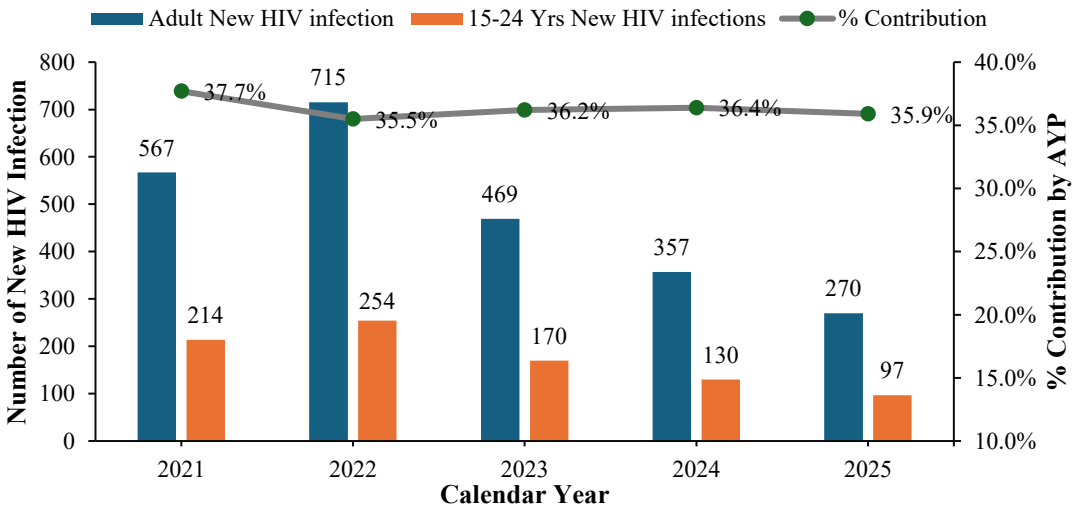


Figure 3: Contribution of Adolescents and Young People to New HIV Infections in Machakos County, 2021–2025

Overall Viral Load Cascade in Machakos County, Dec 2025

Figure 4 presents viral load testing coverage and viral suppression among eligible individuals, showing that 49% (12,945/26,678) of those eligible received viral load testing, of whom 96% (12,411/12,945) achieved viral suppression.

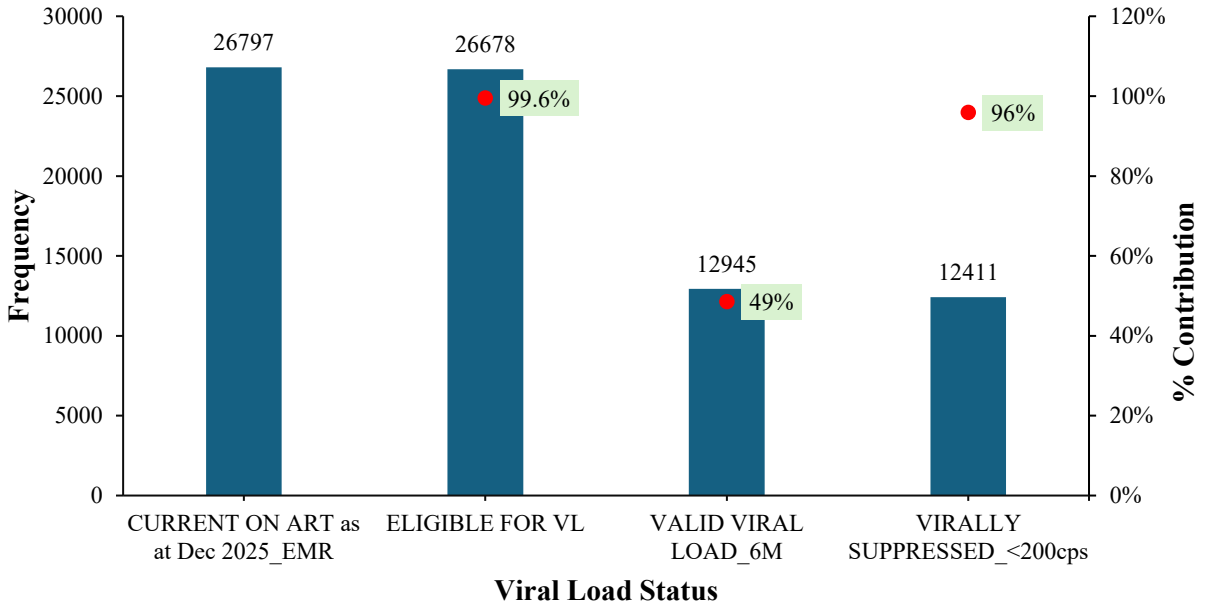


Figure 4: The viral load cascade in Machakos County for all ages, Dec 2025

Viral Load Cascade in Machakos County for the 10-24 years age group, Dec 2025

Within the AYP cohort, 26% of (638/2411) of those eligible received viral load testing, out of which 91% (579/638) achieved viral suppression (Figure 5).

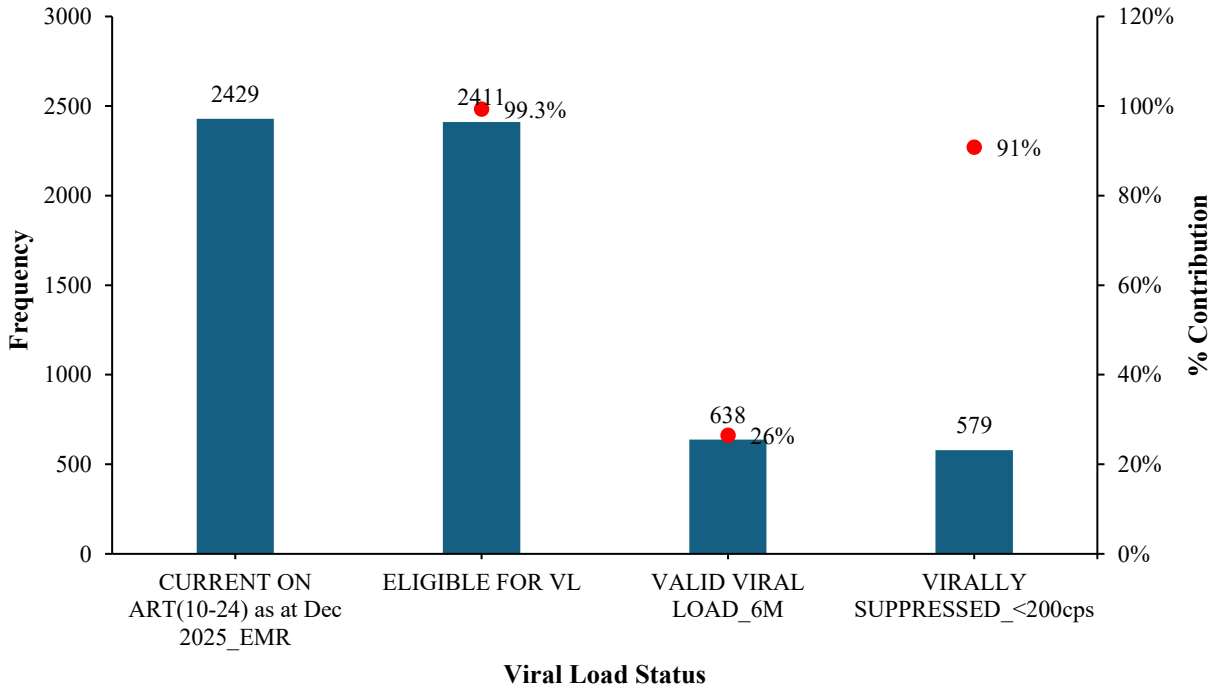


Figure 5: The viral load cascade in Machakos County for 10–24-year group, Dec 2025

Adolescent and Young Person (AYP) Antenatal Care (ANC) Enrollment and Pregnancy Rates by Sub-County (2025)

Out of 59,444 total ANC enrollments, 30,435 (approximately 51%) are from the AYP demographic (ages 10–24). The average teenage pregnancy rate (ages 10–19) stands at 15%. Kalama (23%) and Masinga (21%) show the highest rates of teenage pregnancy relative to their total ANC volume, whereas Athi River (10%) and Machakos (11%) report the lowest relative teenage pregnancy rates (Table 2).

Table 2: Adolescent and Young Person (AYP) Antenatal Care (ANC) Enrollment and Pregnancy Rates by Sub-County (2025)

Sub County	10-14 Yrs	15-19 Yrs	20-24 Yrs	Total ANC	Teenage Preg (%)	AYP Preg (%)
Machakos	116	4540	11565	31456	15%	52
Athi river	42	871	3555	8823	10%	51
Kalama	2	206	357	888	23%	64
Kangundo	4	277	472	1787	16%	42
Kathiani	8	359	691	2037	18%	52
Machakos	21	497	1902	4781	11%	51
Masinga	14	631	1168	3020	21%	60
Mwala	4	543	1107	3014	18%	55
Yatta	5	551	927	3638	15%	41
Total	216	8475	21744	59444	15%	51

Gender-based Violence

The total number of survivors who sought GBV services was 572. Peak survivor volume was seen in January (69), followed by March (68). The highest rate of timely presentation was observed in June, when 23 out of 55 survivors (42%) arrived within 72 hours. Conversely, the timeliness rate dropped to its lowest in October (8.5%, 3/35) (Figure 6).

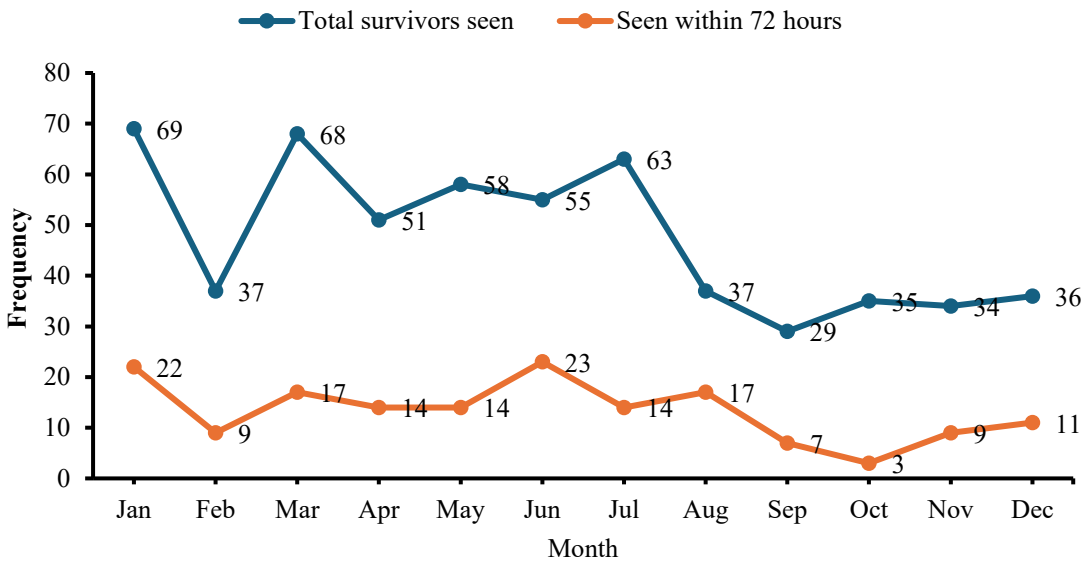


Figure 6: Trend of GBV survivor visits and timeliness in Machakos County, 2025

Figure 7 shows the distribution of GBV by sub-county in 2025. The highest percentage contribution came from Yatta (37%) whereas the lowest percentage contribution came from Machakos (1%) and Kangundo (1%)

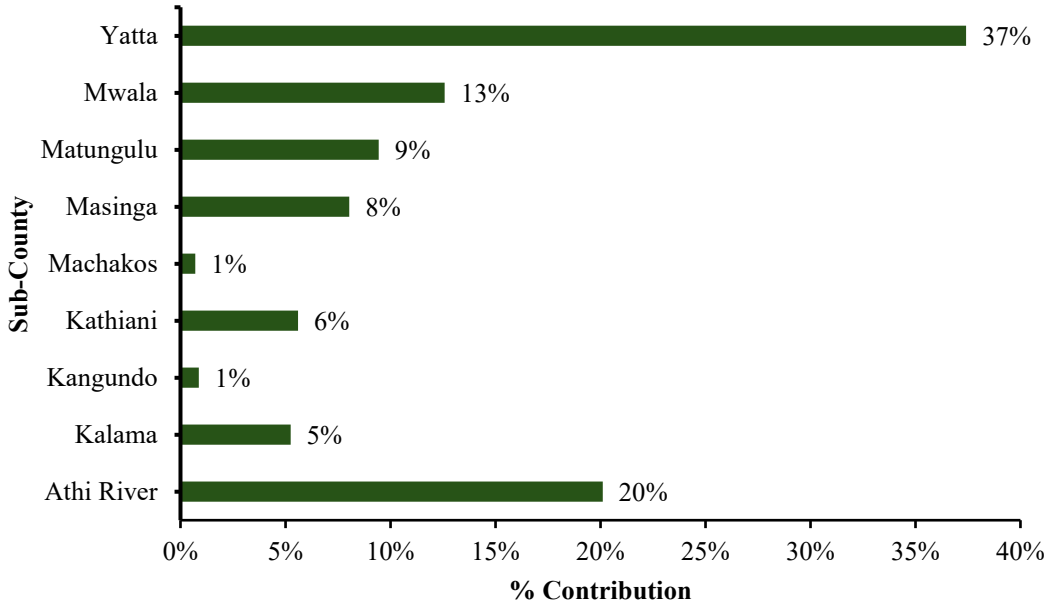


Figure 7: Distribution of GBV survivors by sub-county, 2025

GBV Service Delivery Indicators

Out of the 572 GBV survivors seen, 160 (28%) of them presented within the 72-hour clinical window across the year. About 62 individuals (11%) successfully completed a Post-Exposure Prophylaxis (PEP) regimen, and 54 (9%) received Emergency Contraceptive Pills (ECP) and Intimate Partner Violence (IPV) case identification stood at 44 (8%) (Table 3).

Table 3: Quarterly Distribution of Sexual and Gender-Based Violence (SGBV) Clinical Services

Service	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Total	% Total Survivors seen (N=572)
PEP Completed	14	20	17	11	**62**	**11%**
ECP Received	9	19	18	8	**54**	**9%**
IPV Clients	9	20	4	11	**44**	**8%**
Within 72 Hrs	48	51	38	23	**160**	**28%**

DISCUSSION

These findings from Machakos County highlight important trends across HIV transmission, treatment outcomes, reproductive health, and gender-based violence (GBV), particularly among adolescents and young people (AYP). The data demonstrate progress in HIV prevention and treatment outcomes but also reveal persistent vulnerabilities among young populations and gaps in service utilization that continue to sustain transmission and adverse reproductive health outcomes. Similar patterns have been observed across sub-Saharan Africa, where significant progress in HIV control has occurred alongside persistent disparities among adolescents and young people (Brown et al., 2018; Naidoo et al., 2022).

Analysis of HIV incidence trends shows a notable decline in new infections over the five-year period. New HIV infections among adults initially increased from 567 cases in 2021 to a peak of 715 in 2022, followed by a sustained reduction to 469 in 2023, 357 in 2024, and 270 in 2025. This represents an approximate 62% decline from the 2022 peak. Correspondingly, HIV incidence decreased from 0.71 per 1,000 population in 2022 to 0.23 per 1,000 by 2025, indicating a reduction in the overall force of infection. These improvements likely reflect strengthened HIV prevention interventions, including expanded HIV testing services, improved linkage to care, increased antiretroviral therapy (ART) coverage, and higher levels of viral suppression among people living with HIV (PLHIV), all of which contribute to reduced community transmission. Evidence from population-based HIV impact assessments across several African countries similarly demonstrates that expanding ART coverage and viral suppression substantially reduces HIV incidence at the population level (Brown et al., 2018).

A similar pattern of decline is observed among adolescents and young people aged 15–24 years. New infections in this age group increased slightly from 214 cases in 2021 to 254 in 2022 before declining steadily to 170 in 2023, 130 in 2024, and 97 in 2025. Despite this reduction in absolute numbers, adolescents and young people consistently accounted for more than one-third of new adult infections, contributing between 35% and 38% of all adult cases annually. The persistence of this proportion indicates that although overall transmission is declining, adolescents and young people remain disproportionately affected and continue to play a significant role in the epidemic. Similar epidemiological patterns have been documented across sub-Saharan Africa, where adolescent girls and young women experience significantly higher HIV prevalence and incidence compared with their male counterparts (Brown et al., 2018; Naidoo et al., 2022). Structural and behavioral factors such as early sexual debut, inconsistent condom use, gender inequalities, limited access to youth-friendly health services, and socioeconomic vulnerabilities likely contribute to the sustained risk in this population. Previous studies also highlight age-disparate relationships, multiple sexual partnerships, and gender-based power imbalances as major drivers of HIV vulnerability among adolescents in the region (Naidoo et al., 2022).

The presence of HIV infections among children aged 0–14 years further underscores ongoing challenges in prevention of mother-to-child transmission (PMTCT). Although pediatric infections show a gradual decline overall, the slower pace of reduction and slight fluctuations across the period suggest persistent gaps in PMTCT services. Factors such as delayed antenatal care attendance, missed maternal HIV testing opportunities, and suboptimal adherence to maternal ART may contribute to continued vertical transmission. Studies in sub-Saharan Africa indicate that incomplete PMTCT coverage and delayed maternal treatment initiation remain key contributors to pediatric HIV infections despite substantial programmatic expansion (Naidoo et al., 2022). Strengthening early maternal testing, treatment adherence, and early infant diagnosis remains essential to achieving elimination of vertical transmission.

Assessment of the HIV treatment cascade reveals strong performance in the early stages of diagnosis and treatment. Approximately 96% of diagnosed individuals are receiving ART, indicating strong linkage to treatment and effective treatment scale-up within the county. These achievements are critical for improving individual health outcomes and reducing onward transmission. Evidence from multiple African settings demonstrates that high ART coverage combined with sustained adherence significantly improves viral suppression and reduces HIV-related morbidity and mortality (Mwaura, 2025).

However, a notable gap exists in viral load monitoring coverage, with only 49% of individuals on ART receiving viral load testing. Viral load monitoring is a key component of HIV treatment programs because it enables assessment of treatment effectiveness and early identification of treatment failure. The relatively low testing coverage may reflect operational challenges such as limited laboratory capacity, supply chain constraints for testing commodities, or inefficiencies in sample transport systems. Despite these challenges, viral suppression among those tested remains high at approximately 96%, suggesting strong adherence to treatment and effective clinical management among individuals successfully monitored. Previous studies similarly demonstrate that once patients are successfully initiated on ART and retained in care, viral suppression rates can exceed 80%–90%, highlighting the importance of adherence support and effective treatment programs (Brown et al., 2018; Mwaura, 2025).

Beyond HIV outcomes, the findings also highlight significant reproductive health challenges among adolescents and young people. Adolescents and young people aged 10–24 years account for a substantial proportion of

antenatal care (ANC) enrollments, representing approximately 51% of all ANC visits. This indicates a high burden of pregnancy within this age group. Teenage pregnancy remains a major concern in the county, averaging approximately 15% overall, with considerable variation across sub-counties. Similar trends have been documented across southern and eastern Africa, where high adolescent fertility rates remain closely linked to socioeconomic vulnerabilities, limited contraceptive access, and gaps in comprehensive sexuality education (Dzavakwa et al., 2025).

Higher rates observed in rural areas such as Kalama and Masinga may reflect socioeconomic vulnerabilities, limited access to reproductive health services, and cultural norms that promote early childbearing. In contrast, relatively lower rates in more urbanized areas such as Athi River and Machakos may be associated with improved access to health services, increased educational opportunities, and greater exposure to reproductive health information. These geographic disparities highlight the need for targeted and context-specific interventions to address the drivers of adolescent pregnancy and improve access to youth-friendly reproductive health services. Evidence suggests that strengthening adolescent-focused sexual and reproductive health services can significantly reduce both unintended pregnancy and HIV risk among young populations (Naidoo et al., 2022).

Gender-based violence further compounds reproductive health vulnerabilities in the county. Among the 572 GBV survivors who accessed services, only 28% presented within the critical 72-hour window required for optimal clinical management following sexual violence. Consequently, uptake of key post-assault interventions remained low, with only 11% completing post-exposure prophylaxis (PEP) and 9% receiving emergency contraceptive pills (ECP). These findings suggest that although GBV services are available, multiple barriers limit timely access. Factors such as stigma, fear of retaliation, lack of awareness of available services, delayed disclosure, and logistical challenges in accessing health facilities likely contribute to delayed care seeking. These barriers are widely documented in studies examining GBV service utilization in low- and middle-income settings, where sociocultural norms and structural barriers often delay or prevent survivors from accessing timely clinical services.

Additionally, the relatively low identification of intimate partner violence cases (approximately 8%) suggests significant underreporting. Cultural norms, fear of social repercussions, and limited screening for violence within health facilities may result in missed opportunities for early identification and intervention. Strengthening routine screening for GBV within health services, enhancing community awareness, and improving referral pathways will be critical to addressing these gaps.

The geographic distribution of GBV and reproductive health indicators further suggests that differences in reported cases across sub-counties may reflect variations in reporting systems and service accessibility rather than true differences in burden. Sub-counties reporting higher numbers of GBV cases, such as Yatta, may benefit from stronger surveillance, reporting structures, and service availability. Conversely, areas reporting fewer cases may experience underreporting due to limited awareness, weaker reporting mechanisms, or reduced access to services. These findings highlight the importance of strengthening community-based surveillance systems and ensuring equitable service coverage across all sub-counties.

This study was not without limitations. The study primarily relies on aggregated population-level data, which limits the ability to examine individual-level risk factors associated with HIV infection, adolescent pregnancy, and GBV. As a result, causal relationships between the observed outcomes and underlying behavioral or socioeconomic determinants could not be directly established. However, the use of multi-year population-level data provides important insights into epidemiological trends and program performance at the county level. These findings are useful for informing public health planning and resource allocation while highlighting areas where further individual-level research may be required. Another important limitation is the potential underreporting of sensitive outcomes such as gender-based violence and intimate partner violence. Social stigma, fear of retaliation, cultural norms, and limited awareness of available services may prevent survivors from reporting incidents or seeking care. Consequently, the reported GBV cases may underestimate the true burden of violence within the county. Despite this limitation, the study incorporated data from formal GBV service points and analyzed patterns across multiple sub-counties and months. This approach allows for identification of relative trends and service utilization patterns even in the presence of underreporting, thereby providing valuable programmatic insights for strengthening GBV response systems.

CONCLUSION

The findings indicate that Machakos County has made meaningful progress in reducing HIV transmission and expanding treatment coverage. However, adolescents and young people remain a key population disproportionately affected by HIV, early pregnancy, and GBV. Addressing these interconnected challenges will require integrated and targeted interventions, including strengthening youth-friendly health services, expanding comprehensive sexuality education, improving PMTCT coverage, enhancing GBV prevention and response systems, and strengthening surveillance and reporting mechanisms. Such efforts are essential not only for improving health outcomes among these vulnerable populations but also for sustaining progress toward long-term HIV epidemic control and broader sexual and reproductive health goals in the county.

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