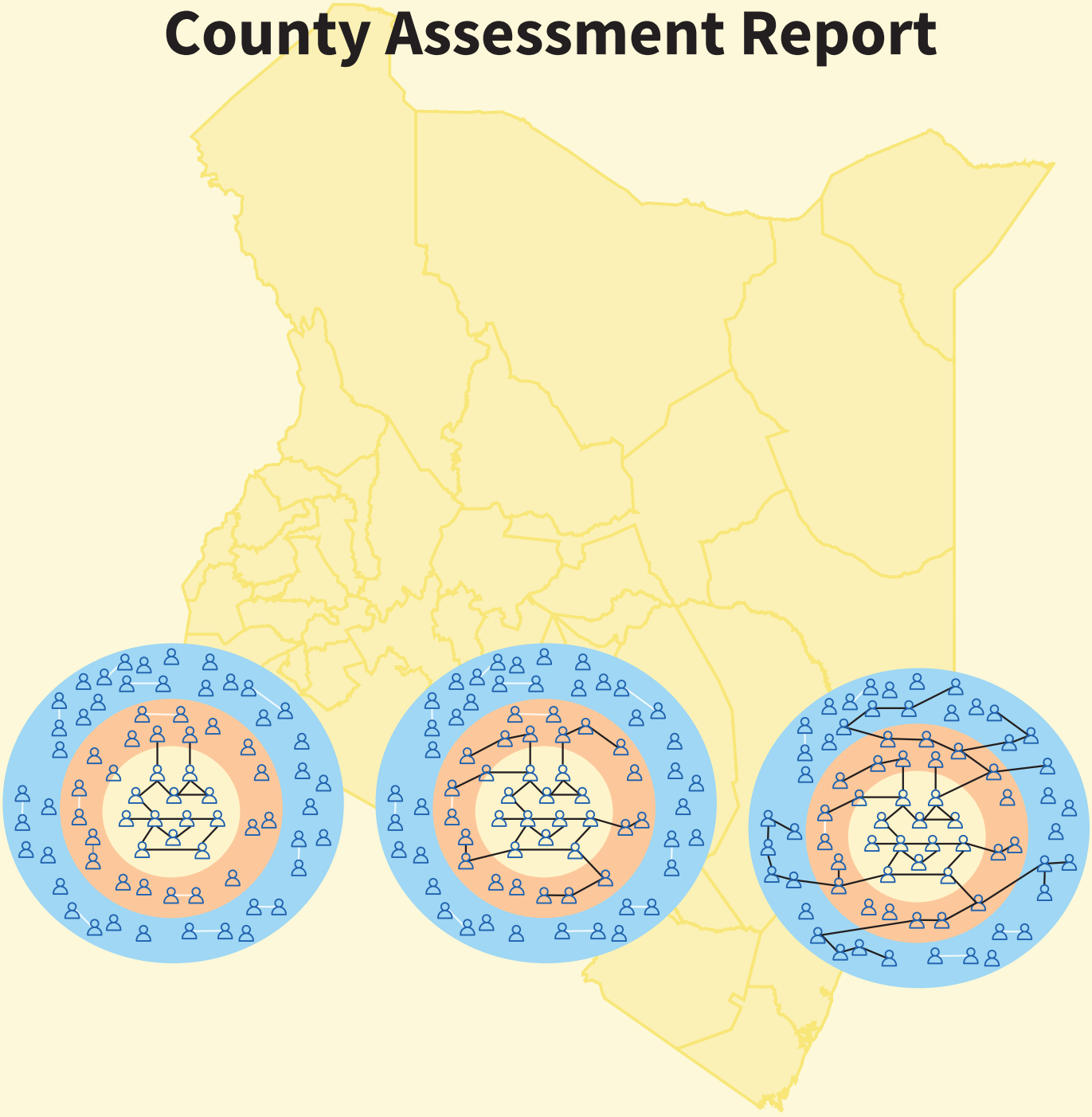
REPUBLIC OF KENYA

MINISTRY OF HEALTH

KENYA HIV EPIDEMIC APPRAISAL
County Assessment Report



NATIONAL SYNDEMIC DISEASES CONTROL COUNCIL

PHDA
Partners for Health and Development in Africa

University of Manitoba

Kenya HIV Epidemic Appraisal: County Assessment Report

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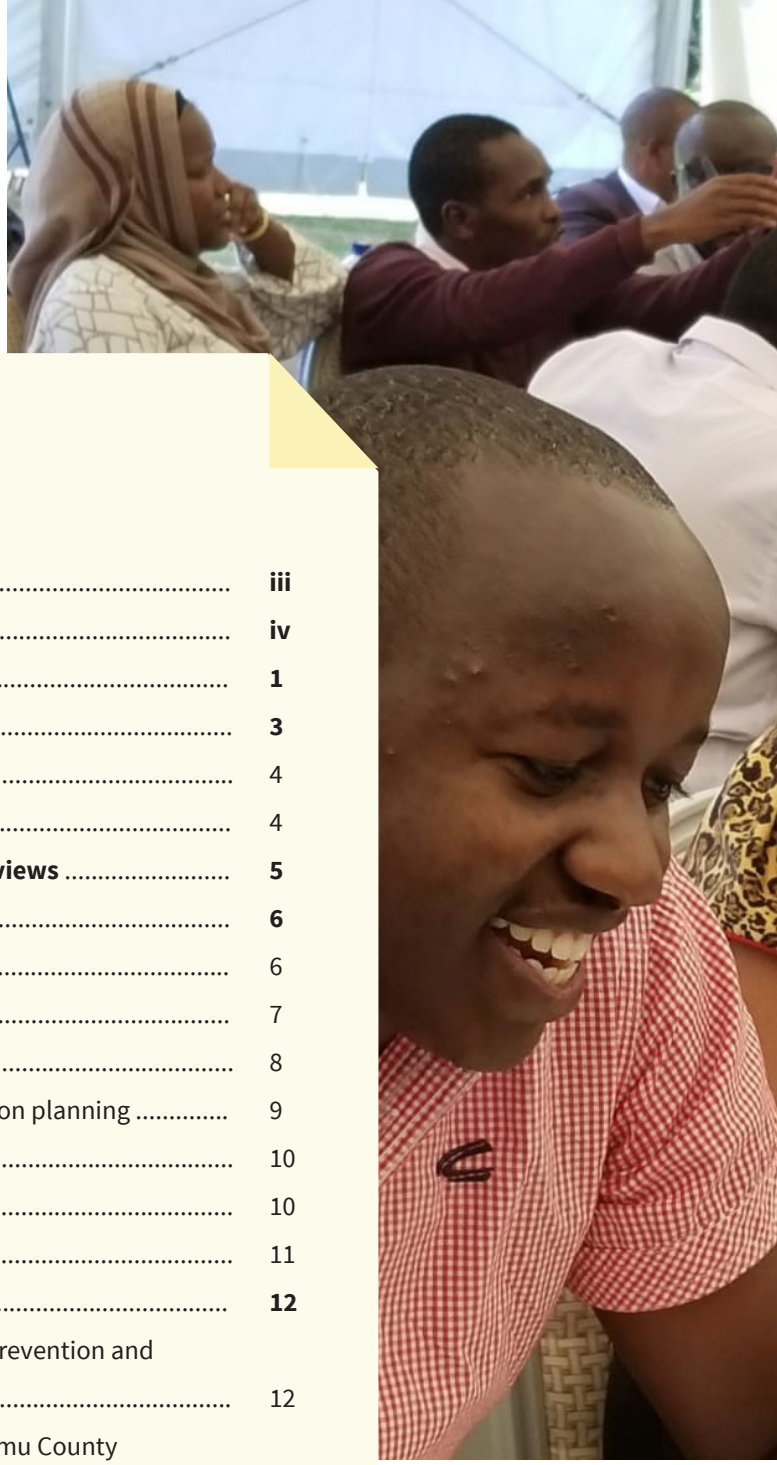

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Acknowledgments

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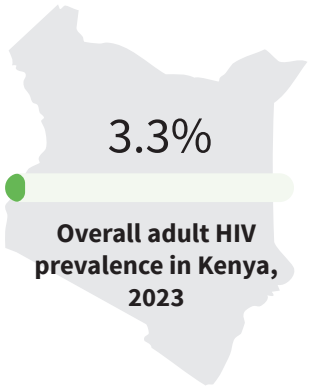
Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
AMPATH	Academic Model Providing Access to Healthcare
ANC	Antenatal Care
ART	Antiretroviral Therapy
AYP	Adolescents and Young People
BCC	Behaviour Change Communication
CASCO	County AIDS and STI Coordinator
CEC	County Executive Committee
CHMT	County Health Management Team
CHP	Community Health Promoter
CHRIO	County Health Records and Information Officer
CHV	Community Health Volunteer
CIDP	County Integrated Development Plan
EMR	Electronic Medical Records
HAART	Highly Active Antiretroviral Therapy
HFG	Healthcare For Generations
HIV	Human Immunodeficiency Virus
HWWK	HOPE worldwide Kenya
IPR	Incidence-Prevalence Ratio
IRDO	Impact Research and Development Organization
KHIS	Kenya Health Information System
MCH	Maternal and Child Health
MOH	Ministry of Health
NASCOP	National AIDS and STI Control Programme
NSDCC	National Syndemic Diseases Control Council
PLHIV	People Living with Human Immunodeficiency Virus
PMTCT	Prevention of Mother-To-Child Transmission
PrEP	Pre-Exposure Prophylaxis
SCASCO	Sub-County AIDS and STI Coordinator
SCHMT	Sub-County Health Management Team
SCHRIO	Sub-County Health Records and Information Officer
STI	Sexually Transmitted Infection
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTJ	USAID Tujenge Jamii

Introduction



Overall adult HIV prevalence in Kenya, 2023

Kenya has one of the most mature and diverse HIV epidemics in Africa, with significant variations in HIV prevalence, incidence, and transmission dynamics across its 47 counties. In 2023, Kenya ranked 12th globally in HIV prevalence,[1] with an overall adult prevalence of 3.3%.[2] While this marks improvement from earlier decades, the epidemic remains deeply entrenched in particular regions and among key and priority populations.[3]

Kenya's HIV response is shaped by its devolved governance structure, whereby health services are managed at both national and county levels. As such, recognising the heterogeneity of the HIV epidemic across counties, during 2021–2022 the National Syndemic Diseases Control Council (NSDCC) and the National AIDS and STI Control Programme (NASCOP) conducted a sub-national HIV epidemic appraisal to inform national HIV prevention strategy. The appraisal was framed around three questions:

1. Which geographies should Kenya prioritise for HIV prevention to achieve the country's goal of new acquisitions reduction by 75%?
2. Which populations should Kenya prioritise in these geographies?
3. What programmes and services should be strengthened and/or scaled up in these geographies and populations?[4]

To answer these questions, the appraisal analysed multiple existing data sets, such as

- HIV prevalence and incidence to identify high-burden counties for geographic prioritisation,
- population size and HIV prevalence to define epidemic typology and prioritise populations for preventive programmes, and
- routine programme monitoring data to assess programme coverage.[5]

With support from the HIV Prevention Technical Support Unit implemented by the University of Manitoba and Partners for Health and Development in Africa, in 2022 the NSDCC conducted a national training of trainers to enhance the capacity of the national trainers on epidemic appraisal.[6] This was followed in October and November 2023 by training of trainers in regional county clusters, wherein two trainers of trainers were trained for each county. During these trainings, participants developed county-specific epidemic appraisal reports and prepared action plans for cascading training to conduct epidemic appraisals at the sub-county level.

[1] Statista. 2025. Ranking of countries with the highest prevalence of HIV in 2000 and 2023. https://www.statista.com/statistics/270209/countries-with-the-highest-global-hiv-prevalence/ Accessed: 27 February 2025.
[2] UNAIDS. Kenya 2023 Country factsheet. HIV and AIDS Estimates. https://www.unaids.org/en/regionscountries/countries/kenya. Accessed: 27 February 2025.
[3] WHO https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-hiv-among-adults-aged-15-to-49-(-)
[4] Ramesh BM et al. 2024. A sub-national HIV epidemic appraisal in Kenya: a new approach for identifying priority geographies, populations and programmes for optimizing coverage for HIV prevention. Journal of the International AIDS Society. 27(S2):e26245. doi: 10.1002/jia2.26245
[5] Ramesh BM et al. 2024. A sub-national HIV epidemic appraisal in Kenya: a new approach for identifying priority geographies, populations and programmes for optimizing coverage for HIV prevention. Journal of the International AIDS Society. 27(S2):e26245. doi: 10.1002/jia2.26245
[6] Ramesh BM et al. 2024. A sub-national HIV epidemic appraisal in Kenya: a new approach for identifying priority geographies, populations and programmes for optimizing coverage for HIV prevention. Journal of the International AIDS Society. 27(S2):e26245. doi: 10.1002/jia2.26245

Methods of the Assessment

The Epidemic Appraisal Implementation Assessment comprised two methods: an online survey to assess the appraisal's implementation in all 47 counties and in-depth interviews to examine the implementation in five counties in greater detail.

Online Survey

During November and December 2024, NSDCC conducted a survey of all 47 counties through an online platform. Responses were recorded in real-time through an online form and analysed using Excel. The questions explored several aspects of the HIV epidemic appraisal process, including

- whether counties cascaded training or mentoring on conducting the HIV epidemic appraisal;
- the composition of teams trained at various levels (e.g., county, sub-county, and implementing partners);
- action plans;
- use of the appraisal beyond action plans;
- challenges encountered during the appraisal's implementation, including gaps in training, resource shortages, and logistical issues;
- strategies employed by counties to address these challenges;
- lessons learned and best practices; and
- future directions and recommendations.

In-Depth Interviews

To gain greater understanding of how the HIV epidemic appraisal was implemented across counties, a qualitative assessment was conducted, focusing on five selected counties. These counties were chosen strategically, based on their implementation status: Nakuru, Kisumu, and Busia, which had implemented the appraisal process, and Trans-Nzoia and Kwale, which had not.

An interview guide designed to expand on the questions from the online survey was developed to facilitate in-depth interviews. The participants were primarily County AIDS and STI Coordinators (CASCOs) and County Health Records and Information Officers (CHRIOs), who had been trained at the national level as trainers of trainers and were expected to cascade the training to their respective counties. Two participants were selected per county, making a total of 10 potential participants. However, only eight interviews were conducted, because Kisumu and Kwale each had only one participant available for the interviews.

The interviews were conducted via Zoom, averaging one hour for counties implementing the appraisal process and approximately 40 minutes for those that had not implemented it. The sessions were transcribed and analysed narratively to capture each county's unique experiences and challenges.

Presented as case studies, the findings from this qualitative assessment provide detailed insight into the implementation process and outcomes for each of the five counties. The case studies highlight successful strategies and barriers, providing valuable lessons for scaling up the HIV epidemic appraisal.

Findings of the Online Survey and In-Depth Interviews

Online Survey Findings

32/47 counties (68%)
responded to the online survey. Table 1 lists the counties that responded to the survey.

Table 1: Counties that responded to the online survey, November & December 2024

No.	County	No.	County	No.	County	No.	County
1	Baringo	9	Nairobi	17	Kilifi	25	Kericho
2	Uasin Gishu	10	Kiambu	18	Lamu	26	Kwale
3	Meru	11	Narok	19	Trans-Nzoia	27	Murang'a
4	Nakuru	12	Busia	20	Taita Taveta	28	Elgeyo Marakwet
5	Kisii	13	Mombasa	21	Tana River	29	Nyandarua
6	Homa Bay	14	Migori	22	Bomet	30	Bungoma
7	Kakamega	15	Nandi	23	Garissa	31	Kirinyaga
8	Kisumu	16	Kitui	24	Turkana	32	Nyeri

Cascading of the training

When asked whether counties had cascaded training, sensitisation, or on-the-job mentorship regarding the HIV epidemic appraisal at both county and sub-county levels, the survey revealed notable disparity in implementation. More than half of the responding counties (56%, 18 of 32) had begun implementation of the appraisal process, indicating early progress in some regions. Conversely, 44% (14/32) had not initiated, highlighting significant challenges in operationalising this critical initiative.

The primary barriers cited by counties lagging behind were inadequate financial resources, logistical support, and capacity-building efforts, such as training and sensitisation for county staff. While some counties had taken the preliminary step of introducing the HIV epidemic appraisal process to key stakeholders—such as the County Health Management Teams (CHMT) and Sub-County Health Management Teams (SCHMT), administrative chiefs and other stakeholders—this engagement often stopped short of comprehensive follow-through, leaving staff without the necessary skills and knowledge to conduct the appraisal.

Table 2: Counties that had and had not begun cascading the HIV epidemic appraisal process

Yes, 56.3%

No.	County	No.	County
1	Bomet	10	Taita Taveta
2	Busia	11	Tana River
3	Homa Bay	12	Murang'a
4	Kericho	13	Bungoma
5	Kilifi	14	Kitui
6	Kisii	15	Nyeri
7	Kisumu	16	Elgeyo Marakwet
8	Nakuru	17	Kirinyaga
9	Narok	18	Nandi

No, 43.7%

No.	County	No.	County
1	Baringo	10	Nairobi
2	Garissa	11	Trans-Nzoia
3	Kakamega	12	Turkana
4	Kiambu	13	Uasin Gishu
5	Kwale	14	Nyandarua
6	Lamu		
7	Meru		
8	Migori		
9	Mombasa		

Table 2 categorises counties based on whether they had begun cascading the appraisal process. Counties such as Bomet, Kisumu, and Taita Taveta are among the 18 that reported progress in using the appraisal findings, reflecting local efforts to address the HIV epidemic through structured appraisals. On the other hand, larger counties like Nairobi and Kiambu are conspicuously absent from the "Yes" category, raising concerns about resource allocation and prioritisation, even in areas with higher budgets and better infrastructure.

Teams trained

Training was done at the national and regional levels (county clusters). The team that was trained was expected to sensitise the counties on the epidemic appraisal. Therefore, 526 individuals were sensitised.

A total of 562 individuals across various cadres have been trained in the HIV epidemic appraisal process, reflecting engagement at different administrative and operational levels. This group includes 36 members of CHMTs from the following counties: Nakuru (15), Kisii (5), Kericho (6), Homa Bay (3), Murang'a (3), Elgeyo Marakwet (number not specified), Bungoma (2), and Kitui (2).

Additionally, 130 SCHMT members participated in the training, representing Nakuru (22), Kisii (32), Homa Bay (3), Kisumu (14), Bomet (24), Kericho (6), Narok (3), Murang'a (24), and Elgeyo Marakwet (number not specified), along with two from Kitui. Furthermore, approximately 40 CHMT/SCHMT members were trained from Nyeri County.

Additionally, one Chief Officer and one County Executive Committee member (CEC) from Kisii County participated, along with 180 facility team members from various implementing sites (Table 3). The majority of facility members trained were from Nakuru (150), supported by programmes such as USAID Tujenge Jamii (UTJ), HOPE worldwide Kenya (HWWK) , and North Star Alliance. In Kisii, 21 facility members were trained under the Impact Research and Development Organization (IRDO) and LVCT Health. Two trainees from LVCT Health participated from Murang'a County, and two from Bungoma, two from Kirinyaga, and three from Kitui under unspecified implementing partners.

Table 3: Facility team members/implementing partners trained, by county

County	Participants Trained	Implementing Partners
Nakuru	150	UTJ, HWWK, North Star Alliance
Kisii	21	IRDO, LVCT Health
Murang'a	2	LVCT Health
Bungoma	2	Not specified
Kirinyaga	2	Not specified
Kitui	3	Not specified

Through the on-line surveys, it was reported that 23 Sub-County Health Records and Information Officers (SCHRIOs) were trained on the HIV epidemic appraisal system. The participants include two from Tana River, 10 from Bungoma, six from Nandi, and five from Kirinyaga. In addition, the in-depth interviews revealed that seven SCHRIOs from Kisumu were trained on the appraisal system.

The on-line surveys found that at least 19 Sub-County AIDS and STI Coordinators (SCASCOs) were trained: three from Tana River County, 10 from Bungoma County, six from Nandi County, and an unspecified number from Kirinyaga County. In addition, the in-depth interviews revealed that seven SCASCOs from Kisumu County received training.

Furthermore, 11 Sub-County AIDS Coordinators have been trained: six from Nandi County and five from Kirinyaga County.

In Kilifi County, 10 sub-county managers received on-the-job mentorship. Taita Taveta County trained 90 participants in partial data analysis and statistical testing. However, the training emphasised the need for further training to deepen their understanding of statistical concepts and other components of the appraisal process. In Tana River County, five health facility in-charges and 10 additional county staff (cadre unspecified) were trained.

County action plans

When asked about implementing the action plans developed during training, 53% of the counties (17/32) reported partial or complete implementation, whereas 47% (15/32) had not yet implemented their plans due to various challenges and differing readiness levels.

Most counties' action plans have focused on a combination of health system strengthening, targeted interventions, and capacity building.

Adolescents and young people have emerged as a critical demographic, with counties like Nakuru and Kisii tailoring acceleration plans and community outreach programmes to address their unique health needs. Kisii County has incorporated youth-focused initiatives through its Daraja Mbili Vision programme, while Busia has acknowledged gaps in adolescent support due to resource constraints. Murang'a County has enhanced outreach services in the Kangema and Mathioya Sub-Counties while reinforcing the Adolescents and Young People Technical Working Group. Integration of services and outreach programmes for adolescents and young people is ongoing in Kitui County, alongside advocacy efforts for adolescents and young people in Nyeri.

Efforts to improve Prevention of Mother-to-Child Transmission (PMTCT) outcomes are evident in many counties. Nakuru, for example, has leveraged a Rapid Results Initiative alongside monthly review meetings to accelerate PMTCT efforts. Kericho has gone a step further by establishing task forces in all its sub-counties to reduce vertical transmission rates to below 5%. Similarly, Kiambu has integrated PMTCT into maternal and child health services to prevent missed opportunities for early intervention, particularly among adolescent girls and young women. Kitui County has strengthened the mapping of pregnant and breastfeeding mothers through the use of Community Health Promoters (CHPs).

Meanwhile, Bungoma County has made significant strides by **increasing HIV screening and testing**, ensuring better health outcomes for the community.

Data-driven decision-making and digital solutions were also reported as priorities for several counties. Kisii leads with the near completion of a cloud-based Electronic Medical Records (EMR) system, while Migori has strengthened its health interventions through routine data quality audits. In Nakuru, ongoing data reviews and audits guide programmatic decisions, emphasising evidence-based approaches to HIV programming. To enhance the effectiveness of HIV/AIDS service delivery within Kitui County, it was imperative to assign the MOH 731 dataset specifically to the facilities that provide these critical services to enable precise tracking and management of relevant data, ultimately facilitating improved resource allocation and elevating the quality of patient care.

Sensitisation and training initiatives are also a common focus. Counties such as Garissa and Narok have conducted sensitisation sessions for CHMTs and sub-county teams, equipping them with skills for better decision-making. Kiambu has prioritised nurse training to integrate HIV prevention into maternal care, while Kisii has trained teams in key population reporting tools, ensuring accurate and comprehensive data collection.

Targeted interventions for key populations have been implemented in various counties. Kisii and Mombasa have mapped HIV hotspots and integrated services for key populations into sub-county hospitals. Kericho and Migori have employed mobile testing and outreach efforts to enhance service delivery for these groups. Meanwhile, Garissa has begun planning further training for sub-county programme staff to strengthen key population-focused interventions.

Planning and resource allocation remain pivotal to implementation efforts. Nakuru has ensured continuous domestic funding for HIV activities, while Bomet has integrated the epidemic appraisal related activities into its annual development and work plans. In contrast, Kilifi and Kwale, despite making some progress with planning, have yet to cascade their efforts to sub-county levels due to limited resources and support.

Utilisation of HIV epidemic appraisal beyond action planning

Counties have leveraged the HIV epidemic appraisal in various ways beyond action planning, demonstrating its utility in addressing local needs and improving service delivery. A significant focus has been on amending work plans to enhance youth-focused HIV services, prioritising the uptake of pre-exposure prophylaxis (PrEP) among key and vulnerable populations, and collaborating with higher education institutions for sensitisation and outreach efforts.

Several counties have integrated the appraisal findings into mid-term reviews of their County AIDS Integrated Plans, leading to strategic shifts, such as refocusing training for key population programmes and increasing partnerships with organisations supporting HIV prevention, care, and treatment. Some counties also reported engaging their County Assemblies to advocate higher budget allocations for HIV interventions in high-incidence areas.

Efforts to strengthen data systems have included cleaning the Kenya Health Information System (KHIS) to improve reporting on HIV testing, mapping private facilities offering antenatal and HIV services, and addressing missed prevention opportunities in maternal and child health (MCH). Some counties have prioritised EMR adoption, point-of-care testing, and regular data quality assessments. These efforts have informed targeted public health actions.

Youth-friendly services and high-yield testing strategies have been integrated into healthcare settings to increase HIV testing coverage and reduce new infections. The epidemic appraisal has been instrumental in identifying sub-counties with high infection rates, such as Nyatike, Awendo, and Rongo. Such identification has made it possible to prioritise targeted interventions and classify sub-counties based on their epidemic characteristics. For example, in Turkana Central, the appraisal guided the allocation of Global Fund resources to address high infection and mortality rates.

Some counties are also using appraisal insights to inform resource allocation and set service delivery targets. In Taita Taveta, for instance, Wundanyi Sub-County—despite being the least populated—recorded a higher percentage of pregnant women living with HIV than Voi, Taveta, and Mwatate, highlighting the need for tailored approaches. Similarly, Garissa County used the appraisal to direct resources toward high-burden sub-counties.

The HIV epidemic appraisal has emerged as a critical tool for counties to make informed decisions about HIV prevention and treatment strategies. Of the counties surveyed, 87.5% (28/32) reported that the appraisal significantly guided their actions, particularly in addressing PMTCT. Counties prioritised integrating PMTCT services into routine healthcare, ensuring that all pregnant women attending antenatal care (ANC) are tested for HIV and minimising missed diagnoses.

Mapping programmes involving CHPs identified at-risk mothers. At the same time, data-driven work plans targeting high transmission rates were implemented, supported by task forces overseeing key indicators like ANC testing and antiretroviral therapy (ART) adherence.

Efforts extended to targeted testing and specialised support for vulnerable populations, with sub-counties like Awendo and Rongo expanding services in historically underserved areas. Healthcare worker training equipped staff to address the needs of adolescents, key population members, and fisherfolk, while tailored identification strategies in high-incidence regions increased case detection. Counties also integrated HIV services into MCH programmes and collaborated with schools and higher education institutions to engage adolescents and young people through peer education and acceleration plans.

Innovative approaches, such as sports-based interventions and mobile health teams, further extended outreach. In Taita Taveta, roving HIV testing services counsellors and strategically placed Mentor Mothers improved service delivery in high-volume facilities, increasing HIV-positive infant identification. Resource allocation efforts included redistributing HIV commodities to underserved areas and mapping priority regions for targeted interventions. Partner-supported technical assistance bolstered these initiatives by providing mentorship, planning support, and resource mobilisation.

> The appraisal has enabled counties to address service gaps and develop targeted, data-informed strategies, though gaps in its uptake and implementation in some counties highlight the need for continued capacity building and resource investment.

Challenges hindering implementation

Counties reported facing a range of challenges in implementing the HIV epidemic appraisal, significantly hindering its effectiveness. Funding and resource constraints are among the most critical issues, with many counties lacking sufficient budgets to support sensitisation, training, and logistical requirements. This financial gap has led to a heavy reliance on implementing partners, whose support is often delayed or incomplete, leaving crucial activities underfunded.

Data and technology gaps further exacerbate these problems, as counties without integrated EMR systems struggle to validate datasets and use the appraisal tool effectively. Moreover, some counties report that the estimates generated by the appraisal tool are unreliable, undermining its utility for planning and decision-making.

Stigma and community-related barriers continue to hinder HIV response efforts, particularly by delaying diagnoses among men and adolescents. Migratory key populations, such as fisherfolk, pose additional challenges, as they are difficult to track and retain in care, limiting continuity in treatment and prevention programmes. Structural and political challenges compound these issues, with limited political support for key and vulnerable population programmes stalling necessary interventions. Logistical obstacles, such as erratic supplies of essential commodities like condoms and viral load testing reagents, disrupt service delivery and further stretch already inadequate resources. Finally, insufficient staffing levels intensify the workload on healthcare providers, reducing their capacity to integrate and deliver HIV services effectively across the county and sub-county levels.

Strategies to overcome challenges

To address persistent challenges in implementing the HIV epidemic appraisal, counties have adopted a multifaceted approach. Efforts to strengthen political and financial support are ongoing, with counties lobbying for increased domestic funding to reduce dependency on external partners. Regular County HIV Technical Working Group meetings are used to advocate for enhanced resource allocation.

Capacity-building is a priority, with plans for quarterly training sessions aimed at equipping county and sub-county health teams with the expertise needed to effectively implement the epidemic appraisal process. Continuous mentorship and skill-building initiatives are also being pursued to improve the use of data in HIV programming.

For key and vulnerable populations, targeted interventions such as Rapid Results Initiative are underway to boost PrEP uptake among adolescents and young people and key populations. Counties are mapping and validating hotspots to ensure that HIV prevention strategies are precisely targeted.

Additionally, partnerships with implementing partners have enabled joint planning and resource-sharing. By aligning HIV-related activities with their annual work plans and annual development plans, counties aim to streamline implementation and ensure sustainable progress.

Lessons learned and best practices

Counties have drawn valuable lessons and identified best practices from the implementation of the HIV epidemic appraisal. A central insight is the importance of data-driven decision-making, which has enabled counties to prioritise interventions, allocate resources strategically, and focus efforts on high-burden areas. Equally critical are community-centric approaches, where active engagement of community members, political leaders, and youth in HIV prevention activities has fostered a sense of ownership and long-term sustainability.

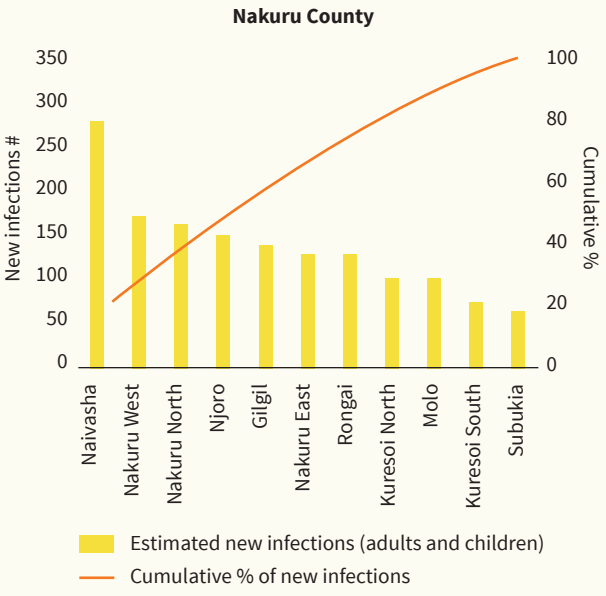
Integrating HIV services with broader health programmes has further reduced stigma while improving access to care. Lastly, the importance of stakeholder collaboration cannot be overstated. Ongoing engagement between county teams, national authorities, and implementing partners has enhanced the understanding of service gaps, promoted accountability, and ensured a coordinated response to the epidemic. Together, these lessons provide a robust framework for strengthening HIV programming at all levels.

Case Study 1:
Nakuru County's Milestone in HIV Prevention and Care through Epidemic Appraisal

Abstract

Nakuru County, a significant hub in Kenya's Rift Valley, faced persistent challenges in its HIV response due to diverse socio-economic dynamics and high-risk populations. The HIV epidemic appraisal's findings enabled health workers to more precisely define, locate, quantify, and address such challenges. By leveraging data-driven insights, Nakuru targeted high-burden areas like Naivasha and Nakuru West, resulting in notable progress in reducing new infections and improving PMTCT outcomes. However, resource constraints, data gaps, and mobility of key populations remain hurdles. This case study highlights the key findings, including enhanced data literacy, community engagement, and strengthened partnerships, while proposing actionable next steps to achieve epidemic control by 2030.

Fig 1: Sub-county-wise new HIV infections and cumulative percentage of new infections, Nakuru County, 2021



Background on Nakuru County

Nakuru County, located in Kenya's Rift Valley region, is one of the most populous counties, with a population of approximately 2.4 million people. The county spans urban, peri-urban, and rural areas, offering diverse economic opportunities. Nakuru's strategic location as a transit hub, its bustling agricultural sector, and its vibrant urban centres contribute to its socio-economic significance. However, these same factors present unique challenges for public health, particularly in the fight against HIV.

Implementation process of the HIV epidemic appraisal

The HIV epidemic appraisal training marked a paradigm shift in Nakuru's HIV programming. The implementation process unfolded through distinct phases, each designed to cascade knowledge and foster localised interventions.

- **Engagement of leadership:** Trainers conducted targeted sensitisation sessions with senior county leadership, including the County Executive Committee for Health, County Health Directors, and members of the County Health Management Team.

> We tasked every sub-county programme officer to pick three areas they felt could change the picture of the HIV epidemic in their sub-county. These could include AYP, PMTCT, or key populations. Quarterly reviews were then conducted to monitor these action plans.

- **Sub-county sensitisations:** Sub-county health teams, including Health Records and Information Officers, STI Coordinators, and Reproductive Health Officers, were sensitised to epidemic typologies specific to their areas.

- **Development of localised action plans:** Each sub-county identified three priority areas tailored to their unique epidemic typology.
- **Data review and adaptation:** Quarterly data review meetings served as occasions for sub-county teams to present progress, analyse data trends, and adapt interventions based on emerging insights.

Expanded training and partnerships

Nakuru County's training initiatives included 15 CHMTs, 22 SCHMTs, and 150 facility team members. This capacity-building effort involved four implementing partners: USAID Tujenge Jamii, HOPE worldwide Kenya, USAID for Better Health, and North Star Alliance. These efforts enhanced the analytical skills of health officers, fostering deeper understanding of data trends.

> During the sensitisation of the CHMT, we involved our partners. Our main partner in the HIV programme in Nakuru is USAID Tujenge Jamii. We also had other partners like Onyx, HOPE worldwide Kenya, and HFG. These partners supported the implementation of the epidemic appraisal at both the sub-county and county levels.

Targeted interventions

- **PMTCT efforts:** Supported by a Rapid Results Initiative, Nakuru has intensified efforts to prevent mother-to-child transmission of HIV.
- **Key populations:** Additional partners were allocated to high-incidence sub-counties, such as Naivasha and Gilgil, to support HIV prevention, care, and treatment for key populations. Regular screening, demand creation for PrEP, and intensified syphilis prevention and treatment are integral to these efforts.

Table 1: Outcomes pre- and post-HIV epidemic appraisal

Before intervention	After intervention
Geographic targeting	
Limited focus on high-burden sub-counties	Naivasha and Nakuru West prioritised; targeted PrEP and key populations interventions expanded
Data literacy	
Minimal engagement with KHIS data; limited analytical capacity	Enhanced analytical skills among health officers; deeper understanding of trends
Community engagement	
Low uptake of community-based services	Increased participation through moonlight services and youth-friendly clinics
Epidemic control	
High new infection rates in Naivasha; persistent PMTCT challenges	Reduction in new infections in Naivasha; improved PMTCT outcomes in Molo

Challenges

- **Resource constraints**: Limited funding restricted the scope of training and support supervision.
- **Data gaps:** Reliance on KHIS data, without full capacity to independently extract and interpret it, limited effectiveness.
- **Commodity shortages:** Erratic supply of HIV test kits and other essential commodities disrupted service delivery.
- **Key population mobility:** High mobility of key populations complicated tracking and continuity of care.

Lessons learned

- **Importance of localised interventions:** Tailored approaches demonstrated greater impact, such as prioritising PMTCT in Molo and key populations in Naivasha.
- **Data ownership and capacity-building:** Training health workers to independently analyse and interpret data fosters ownership.
- **Value of partnerships:** Strong collaborations with partners enabled resource mobilisation and innovative service delivery models.
- **Flexibility and adaptability:** Adapting the appraisal process to resource realities highlighted the importance of iterative learning.

Recommendations for Strengthening Nakuru County Utilisation of the Epidemic Appraisal Tool

- Formalise the quarterly HIV epidemic appraisal review sessions within county health performance meetings to ensure alignment between epidemic trends and county-level health priorities. These sessions should involve the CHMTs, the County Multisectoral Coordinating Committee, and implementing partners to promote shared accountability.
- Expand and decentralise the epidemic appraisal training to reach facility-level data clerks, nurses, and community health promoters. This will support a bottom-up approach to data generation and interpretation, enhancing ownership and fidelity in routine health programming.
- Integrate HIV appraisal insights into the County Integrated Development Plan to facilitate earmarking funds for specific programmes such as PMTCT, adolescents and key populations. This would reduce the over-reliance on development partners, particularly for services targeting vulnerable, marginalised and mobile populations.
- Develop spatial dashboards using sub-county-level epidemic trends to inform the deployment of outreach and mobile health services, targeting underserved areas with persistent high new infections.

Conclusion

The HIV epidemic appraisal has transformed Nakuru County's HIV response by promoting data-driven, localised interventions. Looking forward, Nakuru County envisions building a sustainable HIV response framework by

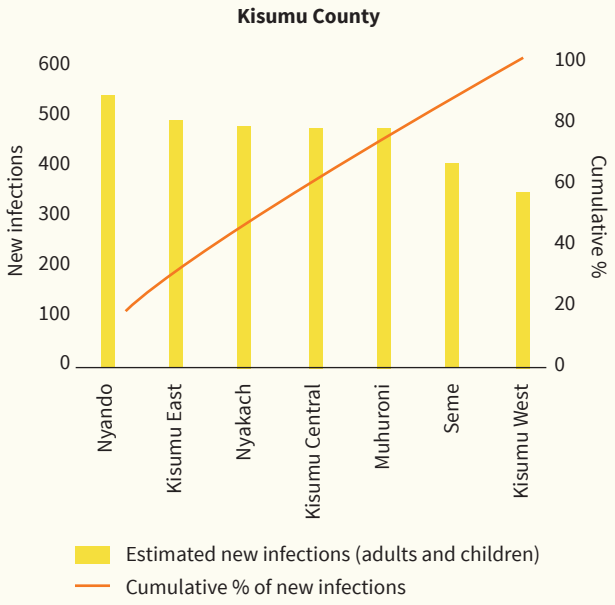
- enhancing training opportunities for health officers to deepen data analysis skills,
- expanding partnerships to address resource constraints and support innovative solutions, and
- strengthening community-based interventions to improve service delivery for key populations and adolescents.

Case Study 2:
Transforming HIV Response in Kisumu County through Epidemic Appraisal

Abstract

Kisumu County, situated in Kenya's Nyanza region, has faced ongoing challenges in managing its HIV epidemic due to the high disease burden and varied socio-economic dynamics. In 2024, the county had the highest number of men living with HIV in the country. The county also contributed a significant number of new HIV infections in Kenya. Despite having a generalised epidemic, implementing the HIV epidemic appraisal is reported to have provided a structured and data-driven framework for identifying high-priority populations and geographies, leading to targeted public health interventions. Despite technical challenges and resource limitations, the county has made significant progress in cascading epidemic appraisal findings to all seven sub-counties, engaging key stakeholders, and refining its public health strategies. This case study highlights Kisumu's implementation process, key outcomes, and lessons learned while providing recommendations for scaling and sustaining these efforts.

Fig 1: Sub-county-wise new HIV infections and cumulative percentage of new infections, Kisumu County, 2021



Background on Kisumu County

Kisumu County, with a population of over 1.1 million, is an urban-rural blend characterised by economic activities such as fishing, trade, and subsistence farming. This socio-economic diversity presents unique challenges for public health interventions. The county has a generalised epidemic and is home to high HIV prevalence rates, particularly among key populations such as female sex workers and men who have sex with men, as well as adolescent girls and young women.

Implementation process of the HIV epidemic appraisal

The HIV epidemic appraisal process in Kisumu County began with the training of two trainers who then offered targeted training for county health officers and other stakeholders. This included seven SCASCOs and seven SCHRIOs, who were tasked with disseminating appraisal findings and coordinating public health responses.

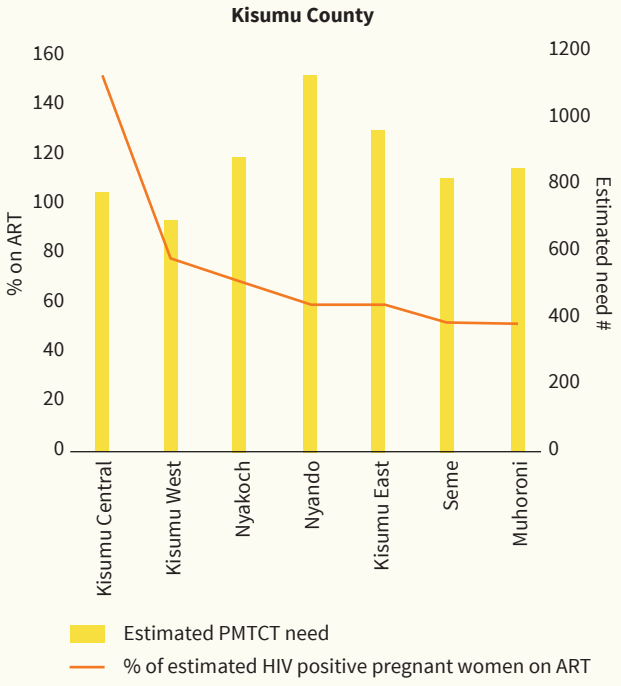
- **Sensitisation activities**
  - Sensitisation sessions were conducted at both county and sub-county levels, involving members of the County Health Management Team, implementing partners, and CHPs.
  - Leveraging existing meetings, such as review forums with implementing partners, allowed for resource-efficient dissemination of epidemic appraisal findings.
- **Localised action plans**
  - Each sub-county identified specific priority areas based on their unique epidemic typologies. For example, Kisumu Central focused on key populations like female sex workers and men who have sex with men, while Nyando targeted interventions for adolescent girls and young women due to high new infection rates.
- **Data quality improvement**
  - Routine data quality audits were integrated into the appraisal process. Partners supported facility-level audits to ensure

alignment between recorded data and system outputs, addressing gaps in data accuracy and timeliness.

- Emphasis was placed on using clean and reliable data to guide interventions, particularly in estimating key population sizes and understanding sub-county-specific challenges.

- **Integration with community health**
  CHPs, equipped with digital tools, mapped pregnant women within their households to enhance PMTCT outcomes. This community-level approach provided timely data for targeted maternal and child health interventions.

Fig 2: Sub-county-wise estimated PMTCT need and percentage of HIV positive pregnant women on ART, Kisumu County, 2021 (Ramesh et al. 2024)



Key outcomes

The implementation of the HIV epidemic appraisal in Kisumu County has yielded several notable outcomes:

- **Geographic and population targeting**
  - High-burden sub-counties such as Nyando and Nyakach were prioritised, resulting in tailored interventions for populations with high new infection rates.
  - Kisumu Central's focus on key populations improved access to HIV prevention and care services for female sex workers and men who have sex with men.

- **Improved data literacy and use**
  - Training sessions enhanced the analytical capacity of health officers, enabling them to make data-driven decisions. Health Records and Information Officers have become key players in translating data insights into actionable public health strategies.

> Data-driven decision-making is very key. Many things that we didn't know before the appraisal became clear—like higher incidences in rural sub-counties compared to urban ones.

- **Community-based interventions**
  - Expanded use of Community Health Volunteers (CHVs) to identify and follow up with high-risk groups, including pregnant women and adolescent girls and young women, strengthened PMTCT and adolescent health services.

- **Enhanced partnerships**
  - Collaborations with implementing partners supported key activities, such as data quality audits and HIV prevention outreach for adolescent girls and young women. These partnerships also provided financial and technical support to fill resource gaps.

Challenges

Kisumu County faced several challenges during the implementation of the HIV epidemic appraisal:

- **Resource constraints**
  - Limited funding hindered the ability to conduct comprehensive sub-county training sessions and follow-up activities.
  - Insufficient staffing, particularly data officers, restricted the frequency and depth of data audits.

- **Technical gaps**
  - The complexity of statistical analysis highlighted the need for ongoing capacity-building in data analysis.

- **Data issues**
  - Historical data inconsistencies required substantial effort to clean and align

with current records, delaying some interventions.

Lessons learned

Fig 3: Lessons learned

- **Data-driven decision-making:** Using the epidemic appraisal tool to identify priority areas and populations has been instrumental in focusing resources where they are needed most.
- **Community engagement:** Empowering CHVs to collect and act on data at the household level has strengthened the integration of community health services with broader public health initiatives.
- **Partnerships and resource leveraging:** Collaborations with partners have mitigated resource constraints and enhanced service delivery efficiency.
- **Localised interventions:** Recognising and addressing the unique needs of urban and rural sub-counties has improved the relevance and impact of interventions.

Recommendations for Strengthening Kisumu County Utilisation of the Epidemic Appraisal Tool

- Formalise the role of sub-county focal persons on HIV appraisal and make them responsible for collecting feedback from frontline service providers, coordinating peer learning sessions, and monitoring appraisal indicators on a quarterly basis.
- Institutionalise the processes for data quality audits (DQA) to be conducted jointly with CHMT, SCHMT, and implementing partners, to build confidence in and the utility of the appraisal-generated insights.
- Deepen the role of CHPs in mapping and tracking high-risk populations by equipping them with community-led monitoring tools. These should include visual aids, simplified appraisal indicators, and protocols for community referrals.
- Align epidemic appraisal targets with performance contracts for health officers and sub-county programme leads. This alignment will incentivise routine data use and embed epidemic appraisal-informed decisions into everyday health system operations.

Conclusion

The HIV Epidemic Appraisal approach has been a transformative tool for Kisumu County, enabling data-driven, localised responses to its HIV epidemic. Moving forward, Kisumu aims to

- enhance technical training for health officers, particularly in data analysis;
- expand community-based interventions, with a focus on adolescent girls and young women and PMTCT;
- strengthen partnerships to mobilise resources and sustain key activities; and
- institutionalise routine data quality audits to ensure accurate and actionable insights.

Case Study 3:
Busia County's Success in Localised HIV Interventions through Epidemic Appraisal

Abstract

Busia County, located in Western Kenya, is a border region with significant public health challenges, including an HIV burden that surpasses the national average. The county is among the top five counties with the highest HIV prevalence, standing at 5.0%—higher than the national prevalence of 3.3% in 2023—and significantly higher HIV prevalence among the key populations despite the county having a mixed epidemic typology. The implementation of the HIV epidemic appraisal, therefore, has been pivotal in identifying high-burden areas and tailoring interventions. Despite progress, gaps remain in addressing the needs of adolescents and young people, resource availability, and community engagement. This case study highlights Busia County's achievements, challenges, and lessons learned, and proposes actionable strategies to achieve epidemic control.

Background on Busia County

Busia County, which borders Uganda, has high HIV prevalence due to factors such as cross-border interactions, mobile populations, and socio-economic disparities. The county encompasses both rural and urban populations and comprises eight sub-counties: Bunyala, Budalangi, Butula, Nambale, Matayos, Teso North, Teso South, and Funyula. Each sub-county has a distinct demographic and socio-economic profile, presenting unique challenges and opportunities for HIV prevention and care. Two individuals were trained as trainers on epidemic appraisal. Following their training, they developed a work plan focusing on various activities to implement the epidemic appraisal at both county and sub-county levels.

Fig 1 : HIV situation in Busia County, 2023

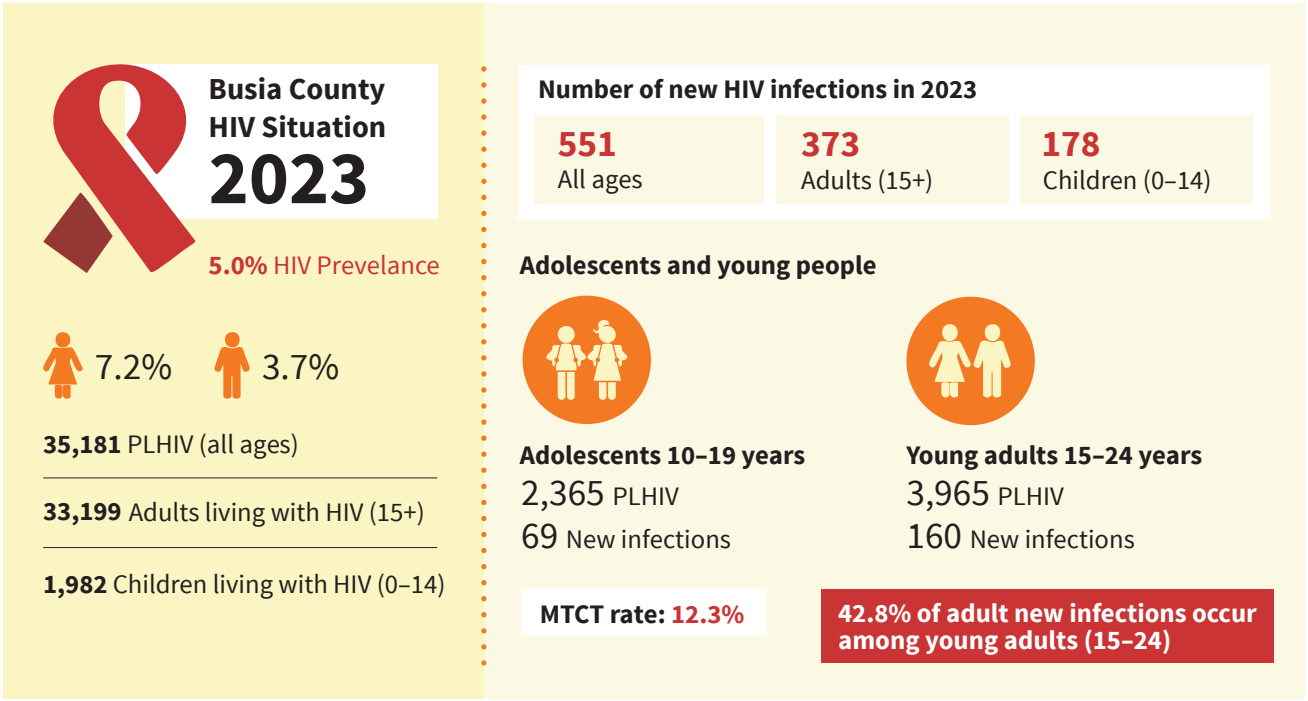
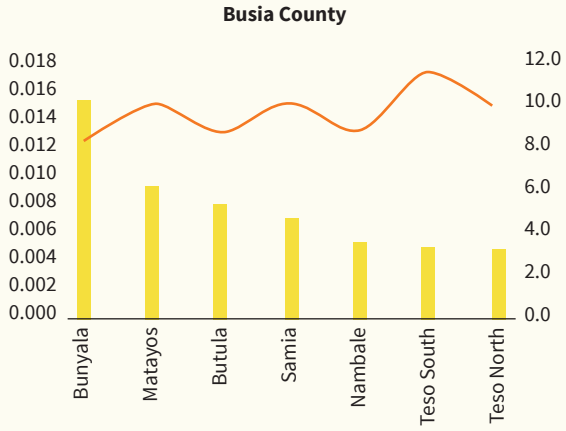


Fig 2: Sub-county-wise HIV prevalence in the general population (2022) and incidence-prevalence ratio, Busia County



Implementation process of the HIV epidemic appraisal

- **Dissemination and cascading training**
  Training dissemination was conducted at the county level, involving representatives from all eight sub-counties. It involved Ministry of Health officials, Sub-County AIDS and STI Coordinators, Sub-County Health Records and Information Officers, and Reproductive Health Coordinators. Due to resource constraints, not all sub-counties managed to cascade training further to facilities. Despite this, sensitised teams developed sub-county-specific action plans informed by epidemic typology.

Key outcomes included

- enhanced understanding of epidemic typologies and
- skills in analysing and interpreting HIV data for informed decision-making.

> We involved all sub-county teams and shared the findings during dissemination meetings. However, budget constraints meant that not all action points could be implemented.

Localised interventions

Key activities implemented included

- Rapid Results Initiative on HIV testing in Samia Sub-County, addressing low identification rates;
- PMTCT enhancement efforts, including engagement with community health promoters to encourage ANC attendance; and
- formation of a WhatsApp group for real-time data monitoring, allowing timely identification and resolution of data discrepancies.

Fig 3: Extract from Epidemic Appraisal Busia County Work Plan, Nov. 2023

Sub-County	Activities	Timelines
County	CHMT Dissemination Meeting	23/11/2023
	County Dissemination Meetings	24/11/2023
Teso South, Bunyala, Teso North, Nambale, Samia, and Butula due to low PMTCT testing, with Butula, Samia, and Matayos Sub-Counties with low PMTCT HAART coverage (less than 90%)	Biannual mapping of pregnant women for services especially	1/1/2023, June 2024
	Capacity building of healthcare workers on PMTCT	Feb 23
	Targeted PMTCT support supervision	Quarterly
	Quarterly PMTCT data review meeting	Quarterly
Teso South Sub-County because of having the highest IPR of 0.016 and Nambale Sub-County is because of the least new HIV infections averted	Integrated outreaches for awareness creation on the importance of early ANC visit, BCC, PrEP etc. to help improve PMTCT coverage especially in Matayos and Teso South that also has the highest IPR	Quarterly

Key achievements

- **Data-driven decision-making:** The use of HIV data informed tailored interventions, such as intensified testing in Samia and targeted PMTCT support.
- **Improved data quality:** Monthly data reviews and audits helped address errors and discrepancies, ensuring better reporting and tracking.

> Our data audits have shown progress in reducing discrepancies. This has given us confidence in the reliability of our reporting systems.

- **Community engagement:** Community health promoters played a critical role in increasing awareness of ANC and PMTCT services.

Challenges

- **Resource constraints**
  - Limited funding restricted training dissemination to all facilities.
  - Some planned activities, such as regular community outreaches, were not implemented.
- **Community reach**
  - Efforts to address adolescent and young people's needs were insufficient due to a lack of targeted resources.
  - Limited engagement of grassroots communities in HIV prevention discussions.
- **Partner dependence:** Over-reliance on donor funding hindered the sustainability of interventions.
- **Limited awareness:** HIV-related issues like the triple threat (HIV, teenage pregnancies, and gender-based violence) were poorly understood at the grassroots level.

Lessons learned

- **Importance of localised interventions:** Tailored approaches addressing sub-county-specific challenges, such as high incidence in Samia, yielded notable improvements.
- **Community ownership:** Empowering communities to take charge of their health can enhance the sustainability of interventions.
- **Collaborative approaches:** Partnerships with organisations like UNICEF and NSDCC were essential for mobilising resources and expertise.
- **Need for consistent support:** Regular follow-up from national-level stakeholders can enhance accountability and reinforce county-level efforts.

> If we empower local leaders and communities, they will own the solutions and sustain them even after external support ends.

Recommendations for Strengthening Busia County Utilisation of the Epidemic Appraisal Tool

- Establish an epidemic appraisal technical working group nested within the CHMT, drawing membership from SCHRIOs, SCASCOs, and data clerks. This group should meet quarterly to coordinate data synthesis, facilitate feedback loops, and flag early warning indicators.
- Use appraisal findings to convene structured community dialogue forums across all eight sub-counties. These forums should involve adolescents and young people and key populations in the design and translation of epidemic appraisal epidemiological insights into actionable community-level strategies.
- Implement youth-centric HIV prevention strategies informed by epidemic appraisal data, especially in areas with high new infections, by developing locally relevant campaigns that integrate school-based interventions, vocational training, and peer mentorship for adolescents and young people.
- Champion and lobby for a ring-fenced budget allocation for HIV programming within the county budgetary allocation from the national Government to provide continuity during donor funding transition.

Conclusion & next steps

The HIV epidemic appraisal has been instrumental in identifying gaps and opportunities in Busia County's HIV response. Moving forward, Busia County aims to do the following:

- **Expand community engagement:** Conduct localised community forums to address the needs of adolescents and young people and empower grassroots stakeholders.
- **Enhance monitoring mechanisms:** Strengthen monitoring and evaluation systems to track progress and document lessons learned.
- **Advocate for resources:** Increase budgetary allocation for HIV programming within county planning cycles.
- **Annual appraisals:** Institutionalise yearly epidemic appraisals to guide programme adaptations and ensure alignment with emerging data.

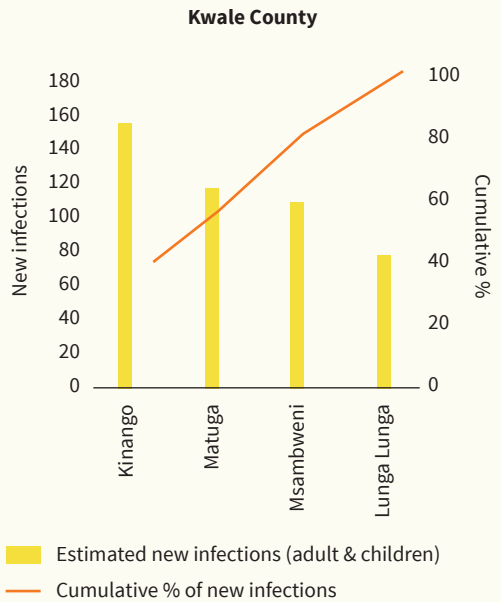
Our next steps include integrating epidemic appraisals into our county health strategy and ensuring that each sub-county has the tools and support to implement interventions effectively.

Case Study 4:
Kwale County's Struggles With Implementation

Abstract

Kwale County, located in Kenya's coastal region, faces persistent challenges in its HIV response despite its efforts to reduce transmission and improve outcomes. While the HIV prevalence of 3.1% is slightly below the national average, key populations and high-risk areas continue to face gaps in intervention coverage. The national-level HIV epidemic appraisal training provided an opportunity for targeted and data-driven responses. However, despite the training of two trainers of trainers, Kwale County has been unable to implement the appraisal process fully. This case study examines the implementation barriers, highlights opportunities for improvement, and outlines recommendations for enhancing the county's HIV response.

Fig 1: Sub-county-wise new HIV infections and cumulative percentage of new infections, Kwale County, 2021



Background on Kwale County

Kwale County is predominantly rural, with its economy anchored in agriculture, fishing, tourism, and mining. Poverty levels remain high, contributing to health disparities and limited access to healthcare services. The county has a population of approximately 866,820, with an almost equal gender split (49% male, 51% female). HIV prevalence in Kwale stands at 3.1%, just below the national average of 3.7%. While this figure may suggest a moderate burden, it masks significant challenges within certain high-risk sub-populations and geographic areas. HIV programming in Kwale has focused on awareness, testing, treatment, and prevention, yet it has not achieved the 95-95-95 targets.

Additionally, while national and regional programmes provide some support, county-specific initiatives often struggle due to funding gaps and insufficient technical expertise. The introduction of the HIV epidemic appraisal tool was intended to address these gaps by providing a data-driven framework to align resources with areas of greatest need. However, Kwale County's implementation has been hampered by structural and financial barriers, highlighting the need for more robust systems and stronger stakeholder collaboration.

Challenges

Kwale County's participation in the HIV epidemic appraisal training at the national level aimed to empower local stakeholders. However, significant challenges emerged during the attempted rollout:

> It is an amazing concept and one that we need to use, but we were stuck due to resources and technical challenges.

- **Limited training impact**
  Trainers of trainers did not adequately prepare and build confidence in the trainees to independently cascade training, citing the highly technical nature of the appraisal tools and insufficient contextualisation of the content during national-level workshops.

> Honestly, I didn't feel like I was trained to a level where I could translate the epidemic appraisal concepts effectively to a class.

- **Resource constraints**
  No budget line exists within the county health plan to support implementation of the epidemic appraisal. This absence of fiscal commitment has left trained personnel demotivated, with some sticking to their ordinary non-data-driven planning processes.
- **Partner misalignment**
  The coordination between the CHMTs and implementing partners has been sporadic, and since partners were not involved in early sensitisation sessions, this led to a mismatch in priority areas and reporting timelines.
- **Insufficient technical support after the training**
  Post-training technical support from NSDCC was inadequate and delayed. This created a capacity vacuum that undermined the trainers' ability to convert theoretical knowledge into practical county-level programming.

Innovative approaches and outcomes

Despite these challenges, Kwale County made some progress by utilising components of the appraisal approach:

- **Key population mapping**
  The Kenya Red Cross supported mapping efforts for female sex workers, men who have sex with men, and people who inject drugs. This exercise enhanced target-setting for HIV interventions.
- **Data utilisation**
  The county leveraged data from the KHIS and the national Key Populations Indicators datasets to prioritise geographies and populations for programming.

Recommendations

Participants in Kwale County feel the county can address its implementation barriers by taking the following steps:

- **Refresher training**
  Conduct virtual or in-person refresher courses with NSDCC or technical partners like the University of Manitoba to improve trainers' preparedness.
- **Stakeholder engagement**
  Engage implementing partners early to ensure alignment with county priorities and facilitate resource mobilisation.
- **Resource mobilisation**
  Strengthen domestic resource mobilisation by advocating for programme-based budgets to reduce reliance on external funding.
- **Performance review**
  Organise regular performance review meetings with stakeholders to maintain accountability and adapt plans as needed.
- **Technical assistance**
  Extend mentorship programmes to sub-county levels to enhance data literacy and empower local teams to implement the appraisal process effectively.

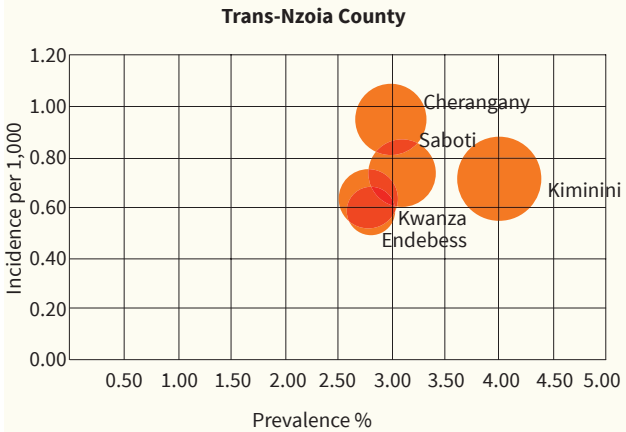
Case Study 5:
Financial Barriers Impeding Implementation of the HIV Epidemic Appraisal in Trans-Nzoia County

Abstract

Trans-Nzoia County, located in Kenya's Rift Valley region, faces significant challenges in implementing the HIV epidemic appraisal. Despite two trainers of trainers attending a national-level training, the county has not cascaded the training to its county and sub-counties teams due to financial constraints, limited technical capacity, and dependency on external partners. The county has a mixed HIV epidemic typology and HIV prevalence of 3.4%. Key populations such as female sex workers, men who have sex with men, and people who inject drugs contribute to the epidemic's burden.

The appraisal offers a strategic framework for identifying high-priority geographies and populations, addressing gaps in key programmes like Prevention of Mother-to-Child Transmission, and improving data quality. However, its potential remains unrealised due to structural and resource barriers. This case study highlights the challenges, lessons learned, and actionable recommendations to operationalise the appraisal and improve HIV prevention in Trans-Nzoia County.

Fig 1 : Sub-county-wise HIV prevalence according to HIV incidence (Bubble size reflects number of people living with HIV), Trans-Nzoia County



Background on Trans-Nzoia County

Trans-Nzoia County, located in Kenya's Rift Valley region, is a peri-urban area with a population of approximately 1.06 million people. Its mixed HIV epidemic typology is characterised by prevalence of 3.4%, closely aligning with the national average of 3.7%. The county's HIV burden is compounded by key populations, all of whom contribute to high rates of HIV transmission. The HIV epidemic appraisal tool, designed to identify priority geographic areas and populations, was introduced to provide actionable data for resource allocation and targeted interventions.

Two trainers of trainers from Trans-Nzoia County participated in a national-level training programme to cascade the knowledge to their colleagues at both county and sub-county levels. However, this effort has faced significant challenges, and the appraisal tool remains largely unimplemented in the county. This case study examines the barriers to implementation, lessons learned, and recommendations for moving forward.

Challenges

- **Inadequate financial support**
  Despite enthusiasm following national training, cascading could not proceed due to a lack of operational funds for venues, materials, and other costs. This represents a missed opportunity in a county with rising HIV prevalence in key sub-populations.

> The training was very informative and resourceful. We had plans to cascade it, but financial support was not forthcoming.

- **Limited technical capacity**
  With only two individuals (CASCO and CHRIO) trained, the county lacks critical mass in technical personnel who understand the epidemic appraisal tool, limiting the cascading

of knowledge and continuity during staff transitions.

- **Dependency on external partners** Implementing partners were slow to align with the appraisal framework, focusing instead on traditional reporting systems, which created confusion and reduced uptake of appraisal outputs.

> We depend 100% on partners for HIV programming, which makes it hard to mobilise for other activities, like epidemic appraisal.

- **Coordination gaps** There is no formal feedback mechanism linking county leadership and field implementers. As a result, the epidemic appraisal remains a reference document rather than a guiding tool for intervention planning.
- **Leadership turnover** Leadership transitions, including changes in the CEC and Director of Health, disrupted institutional memory and delayed implementation of key action points that had been agreed upon during training.
- **Competing priorities** HIV programming is not prioritised in the county's budget. This lack of domestic funding makes the county overly dependent on external support, undermining its ability to address the epidemic independently.

Enhancing data-driven HIV programming

The HIV epidemic appraisal, when implemented effectively, can serve as a cornerstone for data-driven HIV programming in Trans-Nzoia County. The appraisal's capabilities include

- identifying high-priority geographies and populations,
- highlighting missed opportunities in key interventions such as PMTCT and ART retention, and
- improving data quality by reconciling discrepancies between electronic medical records and source patient cards.

For instance, the appraisal revealed high dropout rates among HIV-positive pregnant women and children not receiving preventive ART. Key populations such as men who have sex with men also exhibited significant gaps in care. Accurate data can guide interventions to address these issues effectively.

Lessons learned

- **The importance of timely action** Delays in cascading the training have resulted in knowledge attrition and diminished momentum.
- **Structured feedback mechanisms** Structured feedback sessions involving all stakeholders are critical for creating buy-in and ensuring accountability. The absence of such mechanisms in Trans-Nzoia hindered progress.
- **Capacity-building for sustainability** Empowering local teams to generate and analyse HIV estimates independently can enhance programme sustainability.

Recommendations

- **Resource mobilisation**
  - Engage implementing partners to provide funding for cascading the appraisal training.
  - Advocate for budgetary allocations at the county level to reduce reliance on external support.
- **Strengthen capacity building**

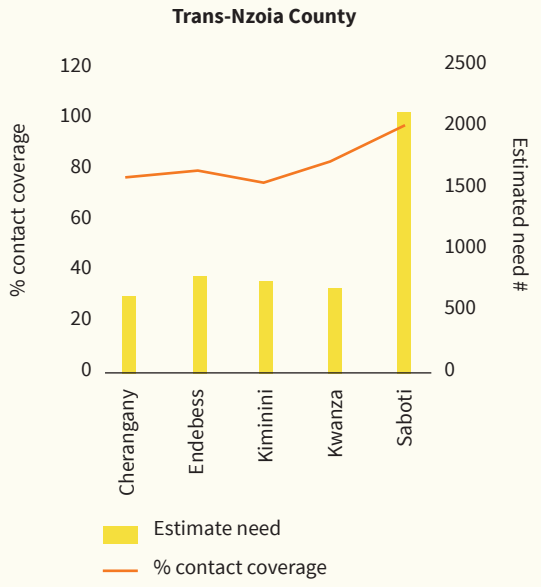
> If service providers understand the appraisal process, we can generate accurate data and better target interventions.

  - Conduct refresher courses for trainers of trainers and train additional personnel at the sub-county level.
  - Organise technical workshops to demystify HIV estimates for service providers.
- **Enhance coordination and advocacy**
  - Establish structured feedback forums to align stakeholders and foster collaboration.
  - Sensitise county executives and directors to prioritise HIV programming.
- **Leverage existing platforms**
  - Use routine data review meetings for sensitisation on the appraisal tool.
  - Incorporate appraisal-related activities

into ongoing programmes supported by partners.

- **Prioritise key sub-counties and populations**
  - Based on epidemic data, prioritise Kiminini, Cherangany, and Kwanza sub-counties, which have high disease burdens and low programme coverage.
  - Address gaps in PMTCT and key population programmes in Cherangany and Endebess.

Fig 2: Sub-county-wise Key Populations Programme coverage and estimated key population members living with HIV, Trans-Nzoia County



Conclusion

Trans-Nzoia County's experience underscores the critical role of financial and technical support, structured coordination, and capacity building in implementing the HIV epidemic appraisal tool. While the tool remains underutilised, its potential to enhance data-driven HIV programming is widely recognised. By addressing resource gaps and fostering stakeholder collaboration, the county can unlock the epidemic appraisal's transformative potential to target resources and interventions better, ultimately improving HIV outcomes across the region.

Conclusion

The Potential of HIV Epidemic Appraisal in Kenya's HIV Response

From the survey and the five county case studies, we see that the HIV epidemic appraisal has demonstrated the potential of data-driven decision-making for accelerating progress in HIV prevention. Across the diverse socio-economic and geographic landscape of the country, this approach has empowered counties to prioritise high-burden populations and regions, align interventions with local needs, and address persistent challenges more effectively. This assessment reveals the appraisal's profound successes and the urgent work still needed to realise its full promise.

Nakuru, Kisumu, and Busia Counties have demonstrated what can be achieved when evidence informs action. In Nakuru, targeted efforts in Naivasha and Nakuru West reduced new infections and improved the PMTCT outcomes. Kisumu's focus on female sex workers, men who have sex with men, and adolescent girls has transformed access to prevention and care, while Busia leveraged data insights to enhance testing and community health promotion.

These successes underline the appraisal's potential to guide HIV programming through geographic precision and demographic specificity. By equipping local teams with actionable insights, the appraisal has demonstrated that even limited resources can achieve significant impact when strategically deployed.

However, the journey has not been without its hurdles. Kwale and Trans-Nzoia Counties have struggled to translate appraisal knowledge into action, hindered by financial constraints, limited technical capacity, and dependency on donor funding. The gap between knowledge and implementation is most glaring in resource-poor regions, where ambitious plans often falter against structural and financial realities.

The uneven dissemination of appraisal training has left some counties unable to cascade skills effectively to grassroots teams. Without refresher training and continuous mentorship, the momentum for implementation wanes.

Key Takeaways

County-Level

Cross-Cutting Best Practices

- Institutionalise appraisal reviews within the routine planning architecture of counties, ensuring results feed directly into annual operational plans, CIDPs, and health sector working groups.
- Engage communities as partners, rather than as passive beneficiaries, by strengthening the use of CHPs, youth champions, and peer educators to generate qualitative insights that contextualise appraisal findings and drive community ownership.
- Develop shared digital tools (e.g., dashboards, mobile data trackers) co-maintained by CHMTs and partners, integrating appraisal insights into quarterly and annual reviews.

Cross-Cutting Challenges Requiring Intervention

- Lack of county-level budgetary allocation has led to implementation gaps and reduced momentum. Even counties with political will are unable to operationalise plans. Hence, the HIV response must advocate for dedicated budgets for conducting epidemic appraisals on a regular basis and using the findings to improve programming. Exploring purposeful and innovative financing mechanisms like ring-fencing resources for this activity and exploring public-private partnerships will be important.
- There are deep knowledge gaps among sub-county teams, many of whom did not participate in training or were not involved in follow-up activities. Hence, training for county health teams should be expanded and complemented by refresher courses and mentorship, to enhance local capacity to analyse and act on data.
- Inadequate digital infrastructure and fragmented data systems make it difficult to consolidate and visualise appraisal findings at the county and sub-county levels. Hence, greater investment in digital health infrastructure, such as electronic medical records, is needed to improve data accuracy and accessibility. In particular, data systems for the Adolescents and Young People Programme need to improve so that comprehensive and standard data are available for guidance and assessment.

National-Level

- **Best Practices for Supporting County-to-County Learning**
  - Institutionalise mentorship arrangements whereby high-performing counties (e.g., Nakuru, Kisumu) coach lagging counties through structured exchange programmes.
  - Develop an online knowledge hub with open access to data visualisation templates, training materials, and translated case studies.
- **National-Level Challenges Requiring Intervention**
  - Budgetary uncertainty at the national level may hamper the rollout of mentorship, training, and refresher sessions for counties. Hence, the budget at the national level must be made clear.
  - There is currently no formal mechanism for coordinating partner priorities with NSDCC's epidemic appraisal strategy. This leads to duplication, inertia, and underuse of tools. Hence, a formal mechanism must be established for coordinating partner priorities with NSDCC's epidemic appraisal strategy.
  - National mentorship teams have not conducted regular county-level follow-up visits, leaving trainers without support and compromising adherence to methodology. Hence, national mentorship teams need to conduct regular county-level follow-up visits.

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