

HIV Pre-exposure prophylaxis data quality audit and system evaluation in Homabay town sub-county-Kenya, 2021- June 2023

Poster number

Brian O. Sigu^{1,2}, Gabriel Tembule³, Fred Omino⁴, Nicholus Kimuyu¹, Abdiaziz Mohamed^{1,2}, Carey Abuya¹, Maurice Owiny¹, Fred Odhiambo¹, Dickens O. Onyango⁵

¹Field Epidemiology and Laboratory Training Program, Ministry of Health, Nairobi, Kenya, ²Garissa County Department of Health, Garissa, Kenya, ³LVCT-Homabay, Kenya, ⁴Homabay County Department of Health, Homabay, Kenya, ⁵Kisumu County Department of Health, Kisumu, Kenya

The evaluation of PrEP data across five facilities highlighted predominantly female as early users, poor data documentation, reporting discrepancies, and declining client retention over time

Background

- HIV/AIDS remains a major concern in Sub-Saharan Africa and among the leading cause of death in Kenya despite interventions (KHSSP 2013-2017)
- In 2021, HIV prevalence in Homabay County (19.6%) was nearly five times the national average (4.3%) (NASCO, 2022)
- Accurate data is key in intervention effectiveness, especially in high-burden regions like Homabay County
- Pre-exposure prophylaxis (PrEP) is highly effective, reducing HIV infection risk by over 90% when used consistently
- Since the roll-out of PrEP in Homabay County, programmatic data quality has not been assessed
- We sought to audit the quality of PrEP data, assess the system, and examine uptake and retention among users

Methods

- Data quality audit conducted on PrEP clients records in the electronic medical record (EMR) register from January 2021 to June 2023 in public facilities in Homabay town sub-county
- System attributes assessed: completeness, accuracy, and timeliness
- Routine data quality audit (RDQA) tool evaluated data quality and system performance
- Descriptive statistics was used to summarize client data and PrEP continuation
- Bivariate analysis: PrEP initiation age as the outcome of interest and prevalence odds ratio (POR) was used as a measure of association

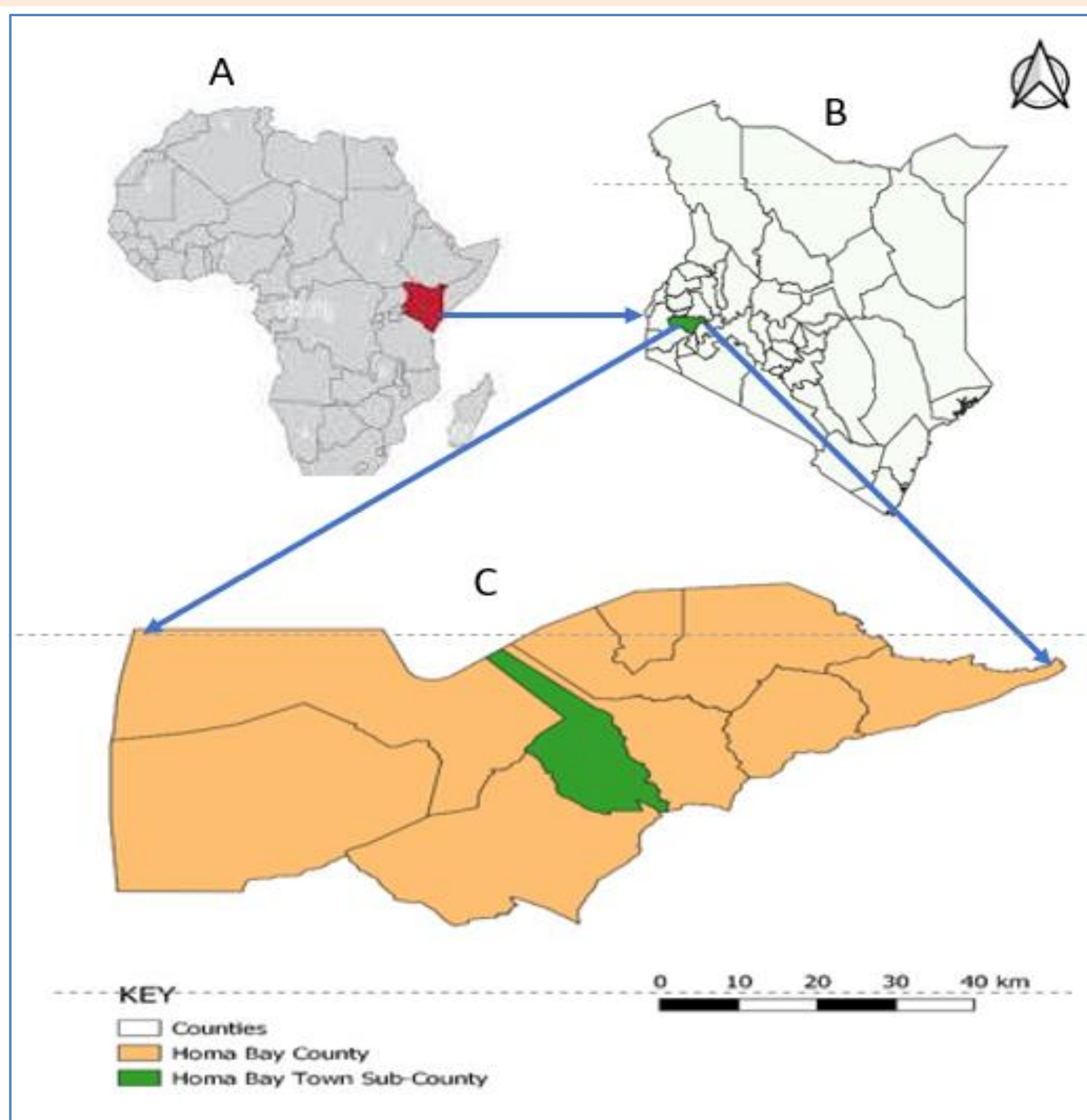


Fig 1 Evaluation location: A - Africa, B - Kenya, and C - Homabay County

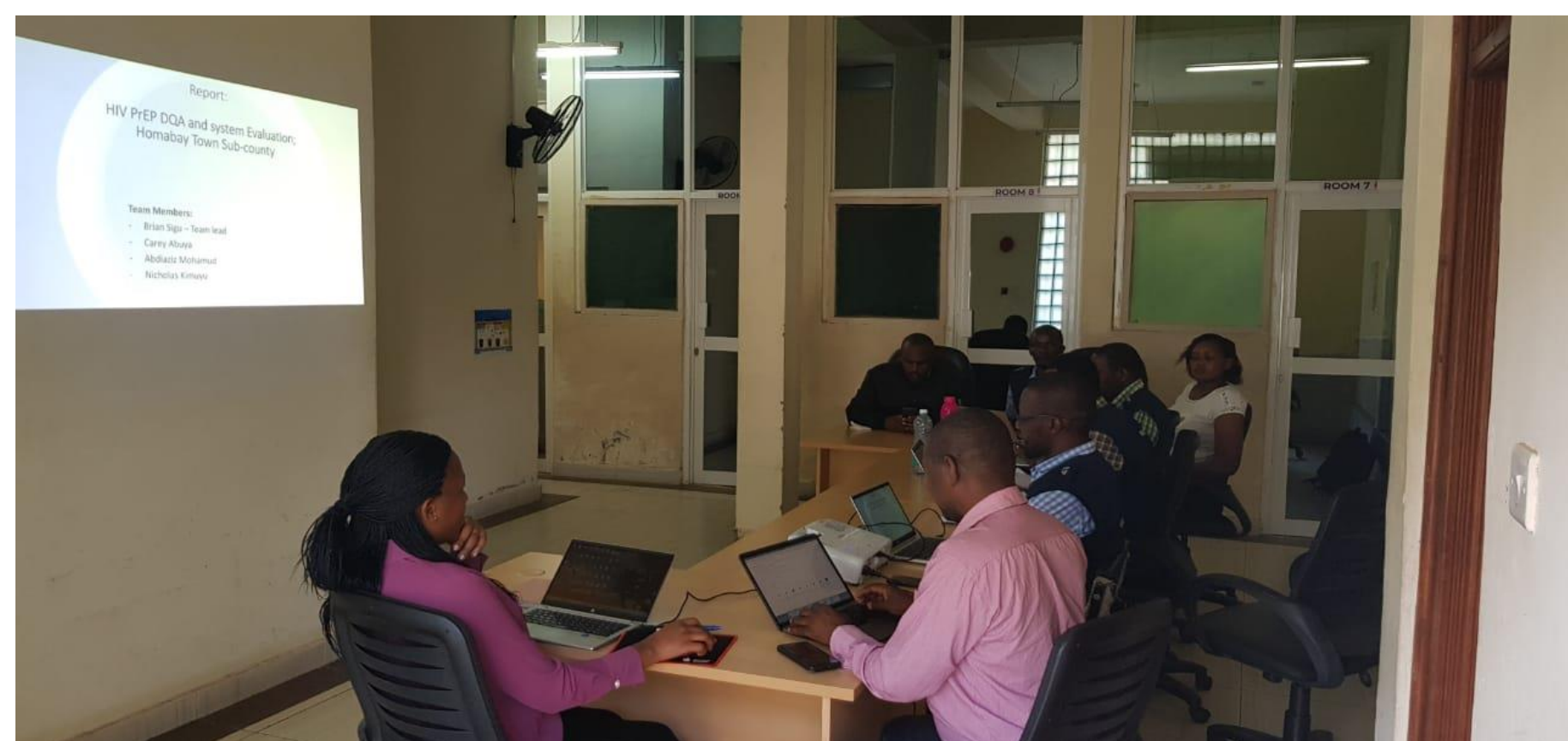


Fig 2 Assessors and County staffs involved in the PrEP data quality audit

Results continued

Table 2 Data Completeness for PrEP Users from the EMR data source in Homabay Sub-County (January 2021 - June 2023)

	HBCRH (n=223)	Makongeni (n=296)	Marindi (n=123)	Miniambo (n=165)	Nyalkinyi (=64)	Average
Sex	100 %	100 %	100 %	100 %	100 %	100%
Age	100 %	100 %	100 %	100 %	100 %	100%
Population type	90.6 %	94.1 %	98.4 %	100 %	99.1 %	96.4%
Assessed	100 %	100 %	100 %	100 %	100 %	100%
Eligible	100 %	100 %	100 %	100 %	100 %	100%
Prep initiation date	100 %	100 %	100 %	100 %	100 %	100%
Reason for Prep eligibility	92.4 %	76.5 %	75.6 %	35.2 %	68.8 %	69.7%
HTS done	91.5 %	94.5 %	98.4 %	100 %	100 %	96.9%
STI screened	100%	100 %	100 %	100 %	100 %	100%
Adherence	13.5 %	58.3 %	22.8 %	15.8 %	18.8 %	25.8%
Received adherence counselling	99.5 %	98.8 %	96.7 %	100 %	87.5 %	96.5%
PrEP status	100%	100%	100%	100%	100%	100%
Discontinuation reason	14.8 %	0 %	0 %	0.6 %	%	3%
Average	84.8%	86.3%	84%	80.9%	82.6%	83.7%

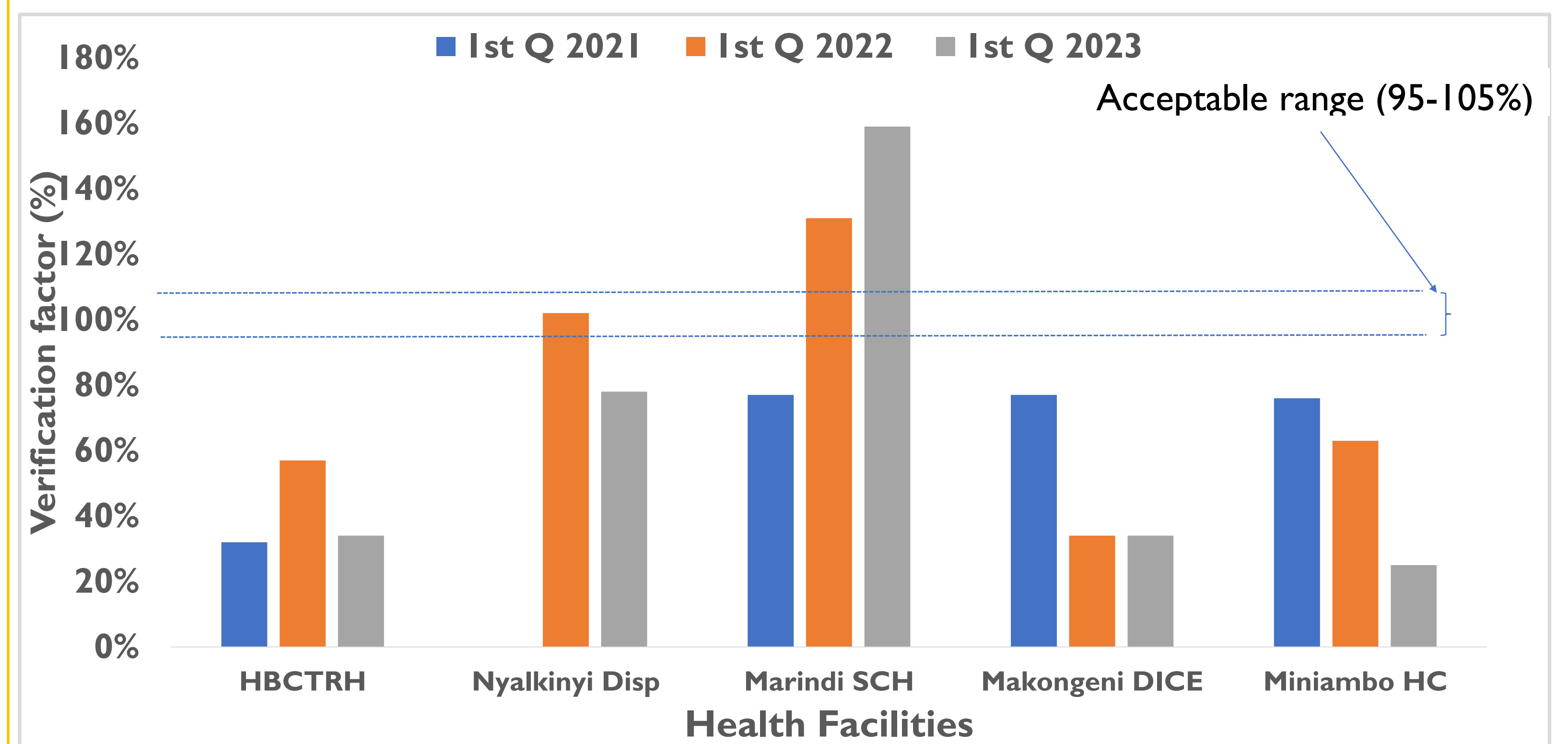


Fig 3 HIV PrEP Data Verification Factor in Homabay Town Sub-County (2021-2022)

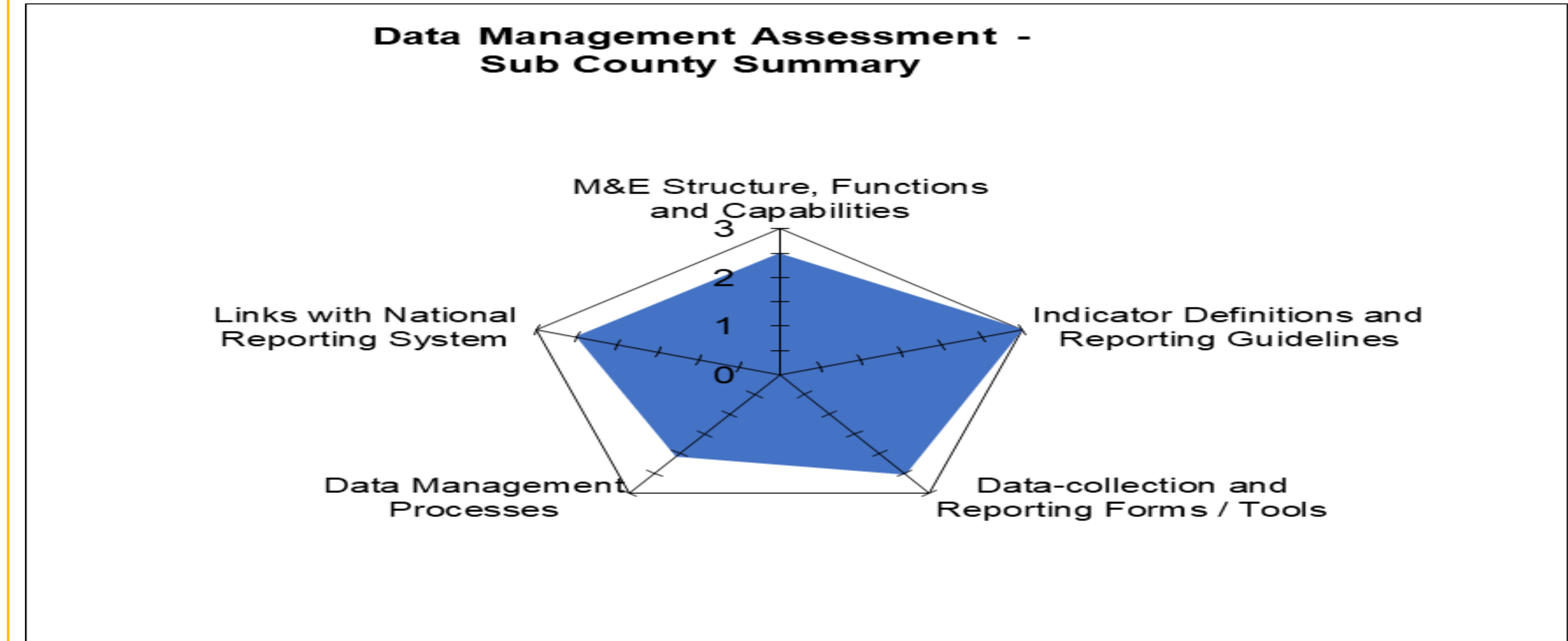


Fig 4 HIV PrEP System Data Management Assessment in Homabay Town Sub-County (2021-2022)

Results

- Record reviewed: 1,058 from five facilities; the median PrEP user age of 28 years (IQR 24-34), and 712 (67%) were female
- The General Population was the primary user group, except at Makongeni DICE, where the Key Population predominated (Table 1)
- Females (POR: 3.9 95% CI: 1.8-8.2) and Priority Populations (POR: 10 95% CI: 4-25) were significantly more likely to start PrEP before age 20
- Data completeness averaged 87.3%, with adherence at 12% and discontinuation reasons at 3% (Table 2)
- The data verification factor was 52.4% in 2021 and 77.4% in 2022, both below the target, while System performance averaged 2.50 (Fig 3), with the Data Management Process as the weakest area (Fig 4)
- PrEP continuation gradually declined after initial initiation (Fig 5)

Table 1 Demographic Characteristics of PrEP Users in Five Facilities in Homabay Town Sub-County (January 2021 - June 2023)

Variables		Female	Male	Total n (%)
Age (n=1058)	15 - 20 yrs	60	8	68 (6%)
	21 - 30 yrs	416	185	601 (57%)
	31 - 40 yrs	175	87	262 (25%)
	41 - 50 yrs	40	36	76 (7%)
	51 - 60 yrs	20	15	35 (3%)
	Over 60 yrs	1	15	16 (2%)
Population type (n=988)	General Population	433	191	624 (63%)
	Key Population	197	129	326 (33%)
	Priority Population	12	26	38 (4%)

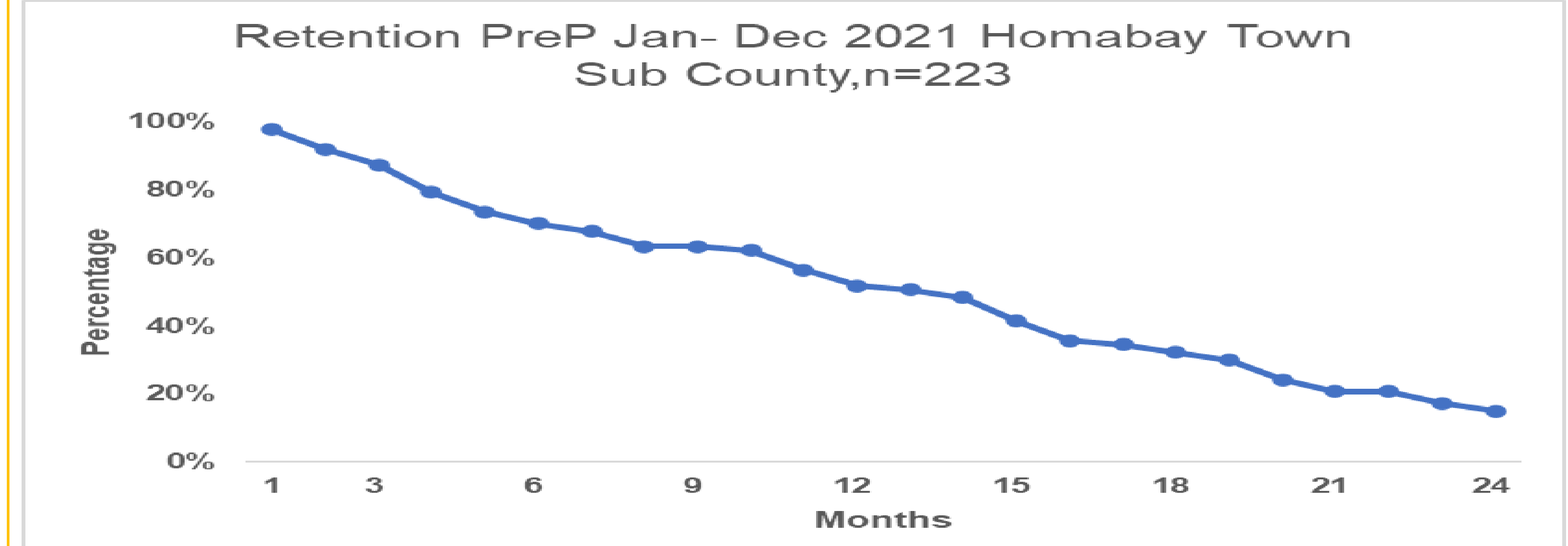


Fig 5 HIV PrEP Retention Rate after Initiation in Homabay Town Sub-County (2021-2022)

Conclusions

- PrEP usage is predominant among younger individuals and females, with the General Population primarily using public facility outlets and the Key Population favouring DICE outlets
- Data quality was suboptimal across facilities, with discrepancies in reporting tools and declining retention rates over time
- These findings emphasize the need for targeted actions to boost adherence, data accuracy, system efficiency, enhancing program effectiveness and health outcomes

Reference

- Kenya National AIDS and STI Control Programme (NASCO). (2021). Kenya HIV County Profiles 2021
- Kenya Ministry of Health. (2023). Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2017: Mid-Term Review

Acknowledgements

- Kenya Field Epidemiology and Laboratory Training Program (FELTP-K)
- Ministry of Health, National AIDS and STI Control Programme
- Homabay County Department of Health

Author Contact Information

Email: bryoscii@gmail.com
Tel: +254710290832

