

Use of recent HIV surveillance data to respond to ongoing HIV transmission in Malawi

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Recent HIV surveillance, hotspot detection, and response may provide opportunities to identify and address gaps in HIV services and socio-behavioral barriers for sustaining gains in HIV epidemic control.

Background

- Recent HIV infection surveillance helps determine whether newly diagnosed people living with HIV (PLHIV) were likely recently infected (<12 months) to identify potential geographic areas or subpopulations experiencing ongoing HIV transmission.
- We describe the process and outcomes of the identification, investigation, and response to HIV transmission in Malawi.

Methods

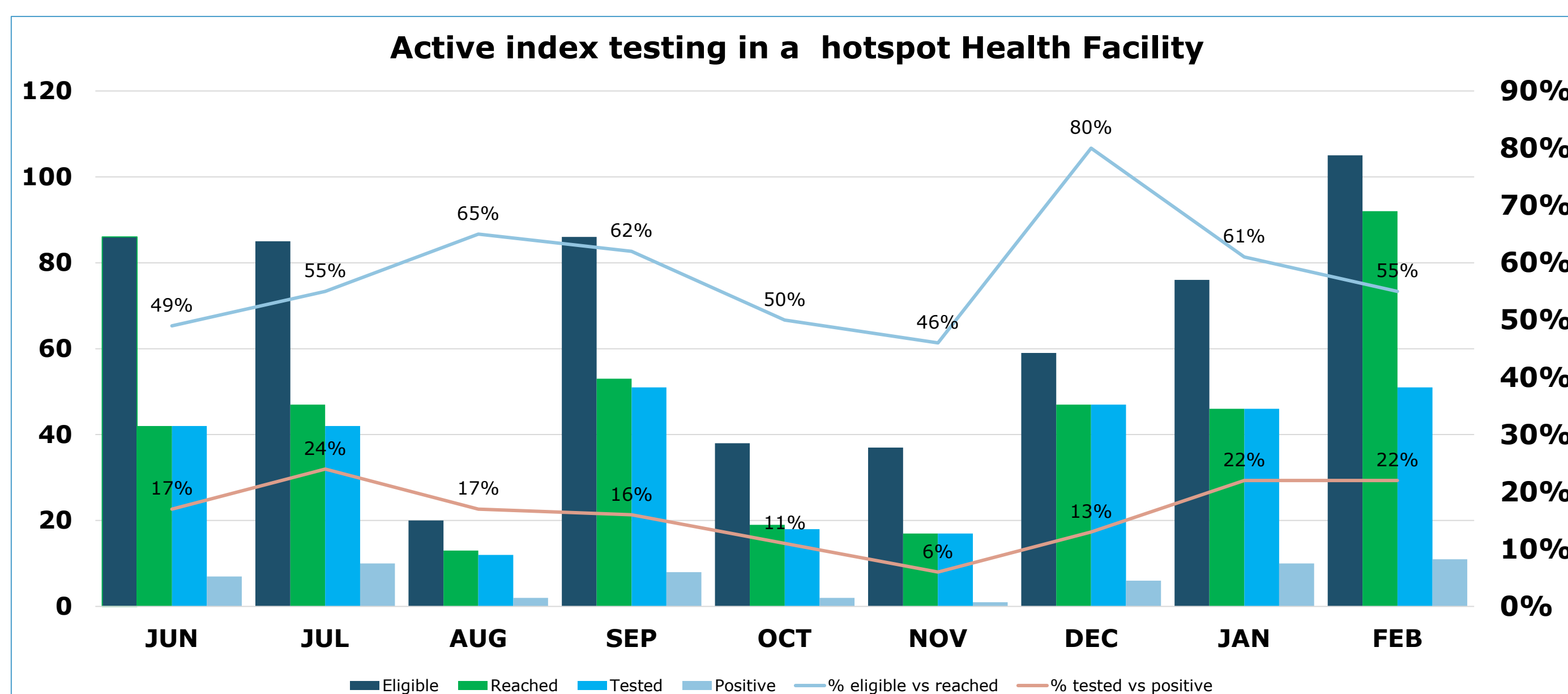
- Newly diagnosed PLHIV in 251 health facilities underwent a rapid test for recent infection (RTRI) and viral load for all those RTRI-recent to complete a recent infection testing algorithm (RITA).
- Facilities with potential ongoing HIV transmission were identified based on: meeting or exceeding numeric thresholds of RITA-recent infections by facility category, significant increases in RITA-recent infections compared to the prior 3 months, and/or a Poisson-based spatiotemporal statistic with SaTScan.
- Facilities that met at least two of these thresholds were investigated. Interviews were conducted during hotspot investigations with health workers and community stakeholders to identify possible drivers of ongoing HIV transmission.
- Interventions were tailored to address HIV service gaps and potential contributors to HIV transmission.

Responding to and following up HIV service delivery gaps identified during an investigation

Issue/Gap	Actual activities	Status
- No PrEP Services offered at health facility	- Engagement of key stakeholders to prioritise training & roll out of PrEP to the site	- I-TECH facilitated opening of the clinic through continuous communication with stakeholders to ensure feasibility of the plan
- Lack of knowledge on PrEP	- Integrating PrEP messages during health talks and drama	- PrEP Services have started - PrEP Messages have started being disseminated - Clients have been enrolled on PrEP



← A community awareness campaign to share HIV prevention information and services available



Findings

- Out of the 251 facilities implementing recent infection surveillance, 15 (6.0%) met one of three hotspot definitions; nine that met 2+ thresholds were subsequently investigated.
- Service delivery gaps included low active index testing and low uptake of pre-exposure prophylaxis, self-test kits, and condom.
- Potential barriers to HIV testing and prevention services identified by respondents included stigma faced by key populations seeking care.
- Risky behavior occurring in bars and "shebeens" (illegal drinking establishments), at parties, and during other cultural practices were also mentioned as possible contributors to transmission.
- Since May 2022, interventions have been implemented to improve HIV testing and prevention, including the integration of targeted condom distribution with scaled-up index testing, and engagements with community and bar/shebeen owners to support moonlight testing and HIV services.

Conclusions

- Tailored interventions may further reduce HIV incidence by identifying and targeting geographic areas and subpopulations experiencing ongoing transmission - the right intervention to the right community at the right time.
- Recent HIV surveillance, hot spot detection, and response may provide opportunities to identify and address gaps in HIV services and socio-behavioral barriers for sustaining gains in HIV epidemic control.