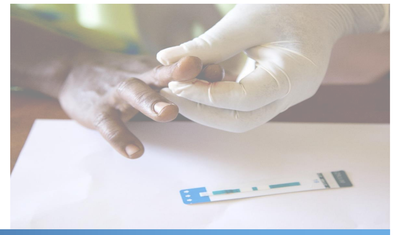
HIV RECENT INFECTION SURVEILLANCE ADDS 17 MINUTES TO HIV TESTING SERVICES PER HIV-POSITIVE PATIENT

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BACKGROUND

- Cost and implementation complexity are the primary concerns of using Asanté rapid recency assays in routine HIV testing services to scale and sustain HIV-1 recent infection surveillance.
- This is particularly challenging in high-burden settings where the workload of healthcare workers is already high.
- HIV-1 recent infection surveillance has been established and scaled up in Rwanda since 2018 and since 2019 in Eswatini.
- We aimed to 1) quantify the additional time spent on facility-based and laboratory-based HIV-1 recent infection surveillance by healthcare workers per every new HIV-positive patient, and 2) identify opportunities to improve the efficiency of recent infection surveillance in these two countries



METHODS

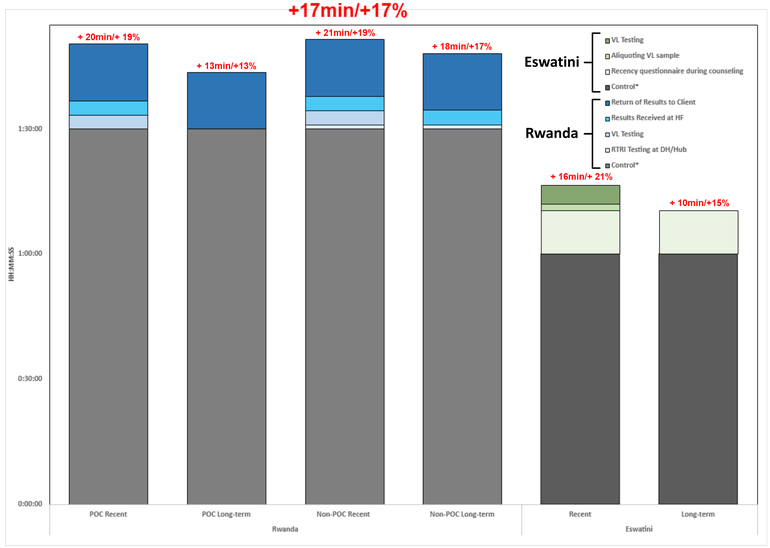
- Trained data collectors implemented a time-motion methodology to observe the workflows of healthcare workers using a convenience sample of newly diagnosed HIV-positive patients at health facilities and laboratories over a 3-month period
- Models of Implementation:
  - In Rwanda, recent infection surveillance is implemented as part of HIV case surveillance. Newly diagnosed, consenting patients complete a case report form and an additional blood draw for Asanté rapid recency assay at a facility or laboratory. Results are returned to patients after viral load testing of recent samples, as per national guidelines.
  - In Eswatini, recency is implemented using an opt-out approach during HIV pre-test counseling in routine HIV testing services. Asanté rapid recency assay is run in parallel with the confirmatory HIV diagnostic test & a short recency-specific questionnaire is completed at the facility level. Recent samples are sent to laboratories for viral load testing, and results are not returned to patients.
- Data collectors electronically recorded the time spent on HIV-1 recent infection surveillance-specific activities that were not conducted in parallel with routine HIV testing activities using tablets.
- Time spent on routine HIV testing in Eswatini and case surveillance in Rwanda among patients not undergoing rapid recency assays served as control observations
- Data were summarized and stratified by country, rapid recency assay results, and implementation model.

HIV-1 recent infection surveillance adds an average of **17 minutes** to healthcare worker duties per newly diagnosed HIV-positive patient in Eswatini and Rwanda

RESULTS

- Data were collected from 84 and 76 new HIV-positive patients in Rwanda (10 recent, 70 long-term, and 4 control cases) and Eswatini (5 recent, 68 long-term, and 3 control cases), respectively.
- Overall, HIV-1 recent infection surveillance added an average of 17 minutes or 17% additional time to healthcare worker duties per newly diagnosed HIV-positive patient.
- In Rwanda, HIV-1 recent infection surveillance implemented as part of case surveillance adds an average of 13 minutes (long-term cases) to 20 minutes (recent cases) at facilities, and 18 minutes (long-term cases) to 21 minutes (recent cases) at laboratories (Figure 1).
- In Eswatini, HIV-1 recent infection surveillance implemented using an opt-out approach in HIV testing services adds an average of 10 minutes (long-term cases) to 16 minutes (recent cases) (Figure 1)
- Returning recency results to clients in Rwanda added up to 16 minutes (Figure 1).
- A recency-specific questionnaire administered in Eswatini added 10 minutes (Figure 1).
- The Asanté rapid recency assays added no time in Eswatini and less than 1 minute in Rwanda (Figure 1).

Figure 1. Average Added Time of HIV-1 Recent Infection Surveillance per HIV-positive Patient in Rwanda and Eswatini, 2023–2024



CONCLUSIONS

- Asanté rapid recency assays for surveillance are well integrated into routine workflow of HIV testing services.
- <7% of all persons newly testing HIV-positive are RTRI recent and undergo additional viral load activities required for recent cases
- Fully integrating recent infection surveillance into HIV case surveillance and removing recency-specific questionnaires may further reduce added time
- Approaches to further streamline and improve workflow efficiency for recency surveillance can be explored

ADDITIONAL KEY INFORMATION

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