Case-Based Surveillance, Covering the last mile in HIV Epidemic control

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BACKGROUND / INTRODUCTION

- Rwanda has recorded significant achievements in the fight against and control of HIV/AIDS with prevalence and incidence at 3% and 0.08% respectively (RPHIA data).
- Rwanda adopted CBS (active case finding and longitudinal follow-up) and Recency testing as strategies to boost the National HIV program in the right direction towards attaining the 95-95-95 targets.
- Since 2018 ICAP has been supporting MOH/RBC in the initiation, piloting, and scale-up of CBS and Recency Testing services.
- Today, all health facilities 578 implement CBS and recency testing in 2 models (POC and Non-POC)

METHODS

CBS consists of two main components:

- **Active Case Finding:** Informing key testing strategies, including the characterization of index contacts to identify transmission networks through Partner Notification services such as:
  - Sexual partners
  - Family testing
  - Social network
- **Longitudinal follow:** Routine surveillance provides data for better monitoring and understanding of individual patient outcomes such as retention on ART, VLS, Regimen changes, and other clinical outcome.
- Recency testing is integrated into CBS and is offered to newly HIV-diagnosed clients above 15 years with results returned to them.
- Analysis of risk behaviors associated with recent infection, identification of areas of high transmission for program response.

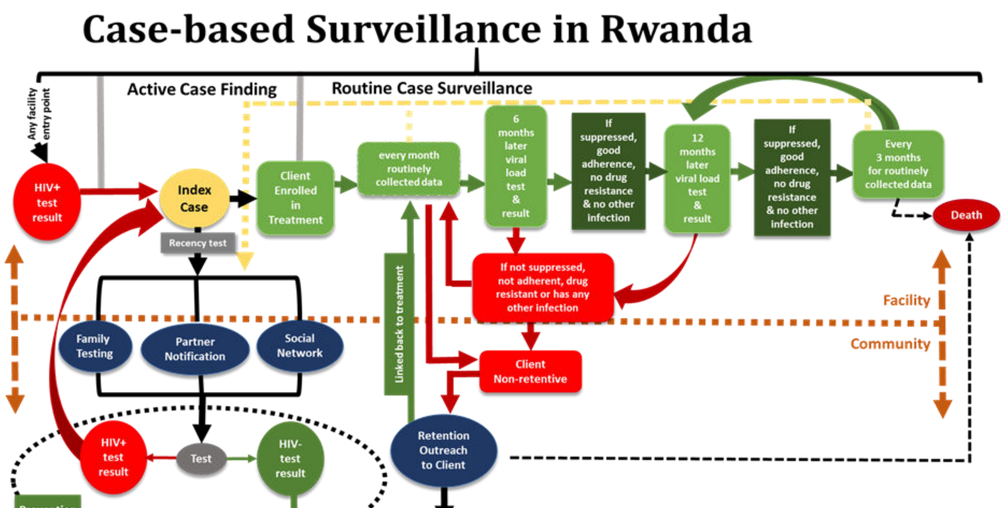

Figure 1: Rwanda CBS Design

RESULTS

- As of today, 192,626 Clients (93% of all PLHIV) have been enrolled into CBS.
- Compared to other testing modalities, Index testing produced a high positivity yield of 4.2% with variations among contact types: social network (10.8%), sexual partners (5.2%), and family testing (1.2%).

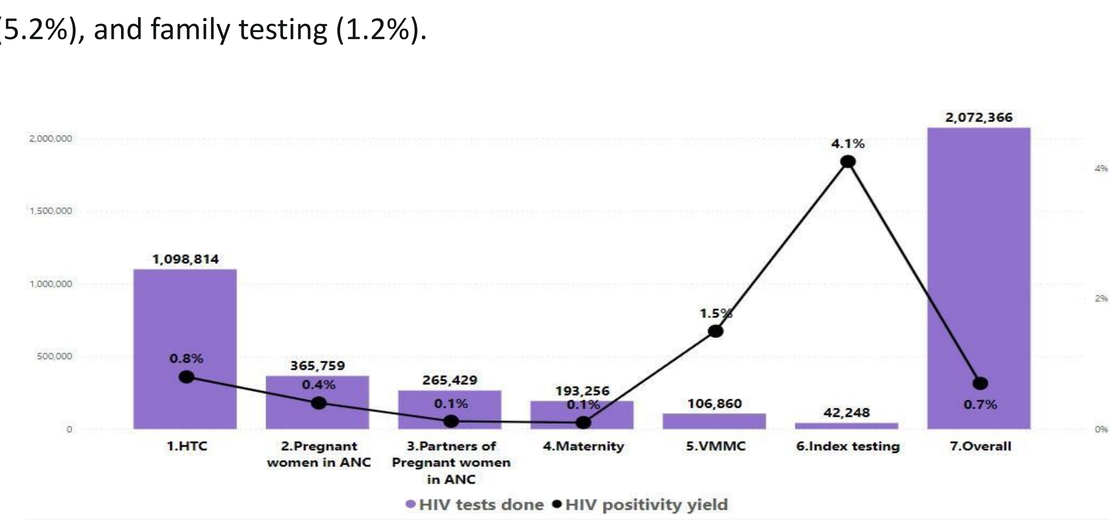

Figure 2: HIV testing and positivity yield different entry points (July 2022-June 2023).

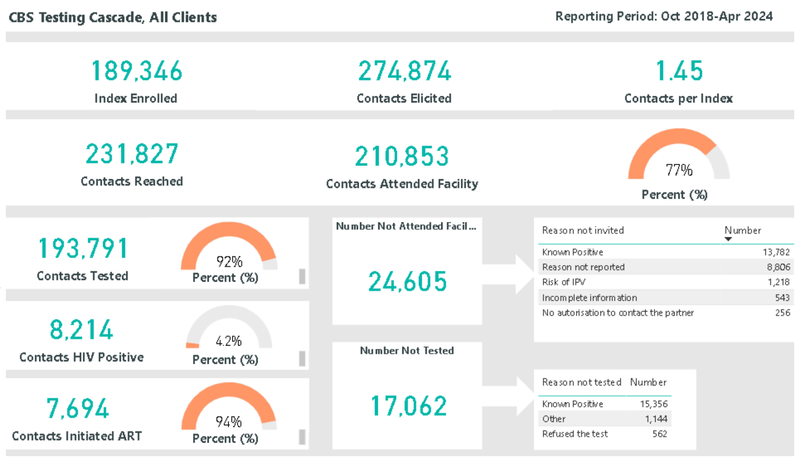

Figure 3: CBS Testing Cascade (October 2018-April 2024)

RESULTS CONT.

- Data analysis, use, and response
  - ✓ CBS and recency testing data is analyzed and visualized through Power BI.
  - ✓ CBS and recency testing data is shared and presented to healthcare Providers and Health facility leaders through monthly HIV Sub-district coordination meetings.
- Since 2020, a total of 55 potential transmission hotspots were detected as per the Rwanda cluster definition (≥2 RITA Recent cases by facility and by month) across 55 sites, which initiated public health response activities for program improvement.

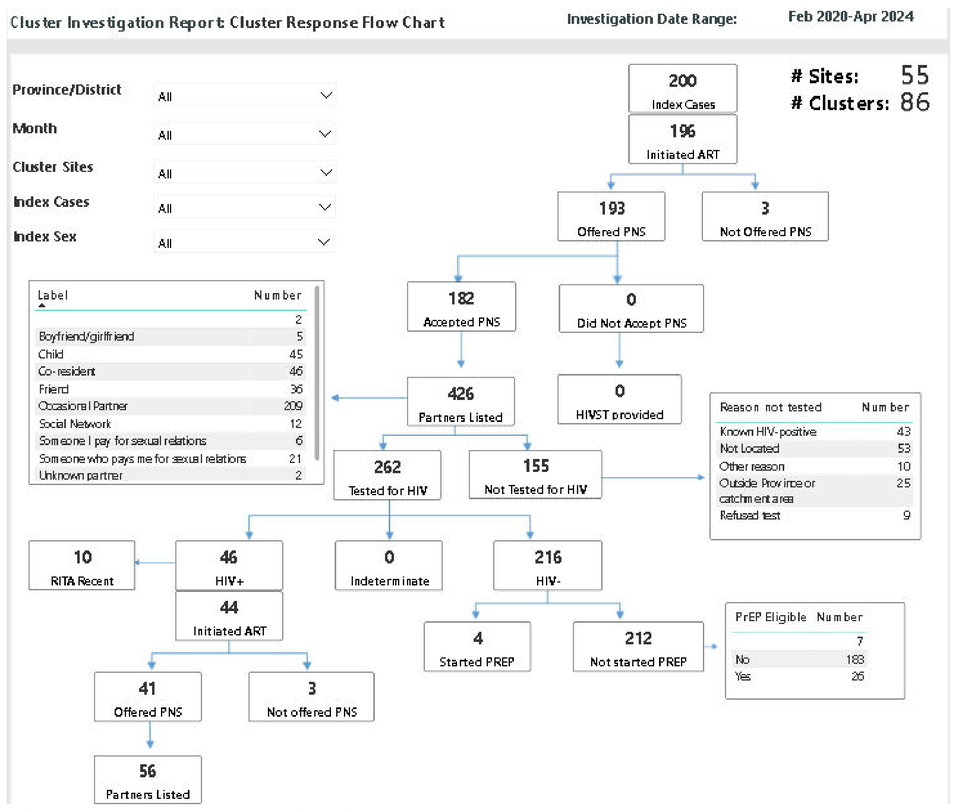

Figure 4: Cluster Investigation Flow Chart

- Using Recency surveillance data, MOH/RBC conducted:
  - ✓ HIV awareness campaigns conducted in specific areas and for populations at high risk of HIV recent infections
  - ✓ Scale-up of PrEP services to health facilities with a higher-than-expected number of recent infections

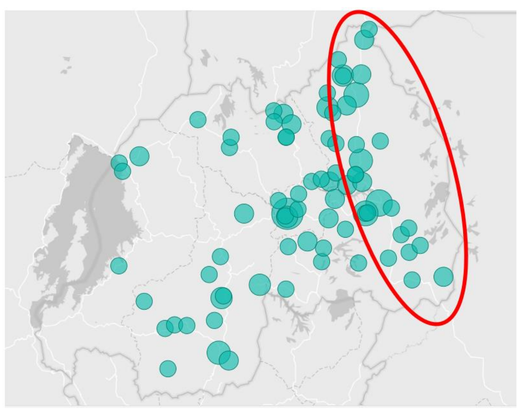

Figure 5: Recent infection distribution by Province

Image 1: HIV awareness campaign in Nyagatare District (Eastern Province)

DISCUSSION / LESSONS LEARNED

- HIV recency evaluation study conducted in 2021 indicated that Recency yield is higher among index clients with a recent infection compared to index with long-term infection.
- The study also highlighted that experience of IPV does not increase after return of recency test results to index clients
- CBS data has shown that active case finding a higher positivity yield compared to traditional testing strategies such as VCT, ANC, VMMC, etc.

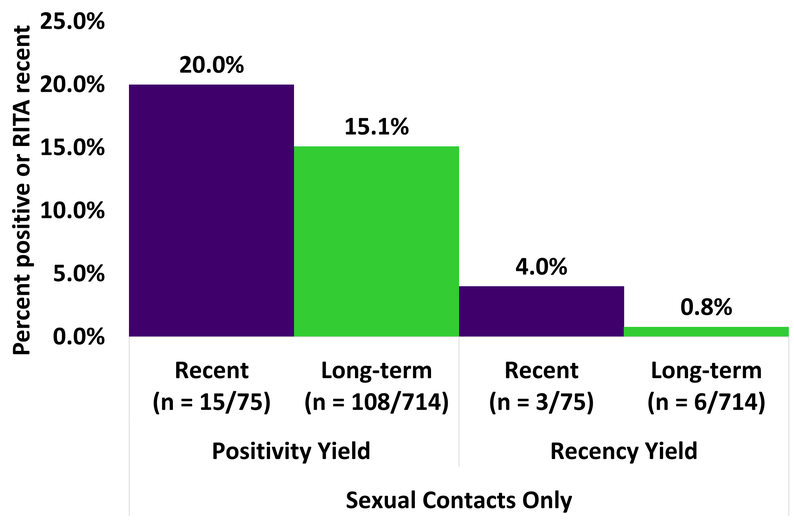

Figure 6: HIV Positivity Yield and Recency Yield among Sexual Contacts of Index Study

Recommendations:

- Complete, quality, and timely CBS data require enhanced monitoring and health care providers' capacity building.
- Integrate tools and reporting systems for better data interoperability

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