The Uganda HIVDR Database: A data information exchange platform to improve HIV drug resistance (HIVDR) monitoring

EPE337

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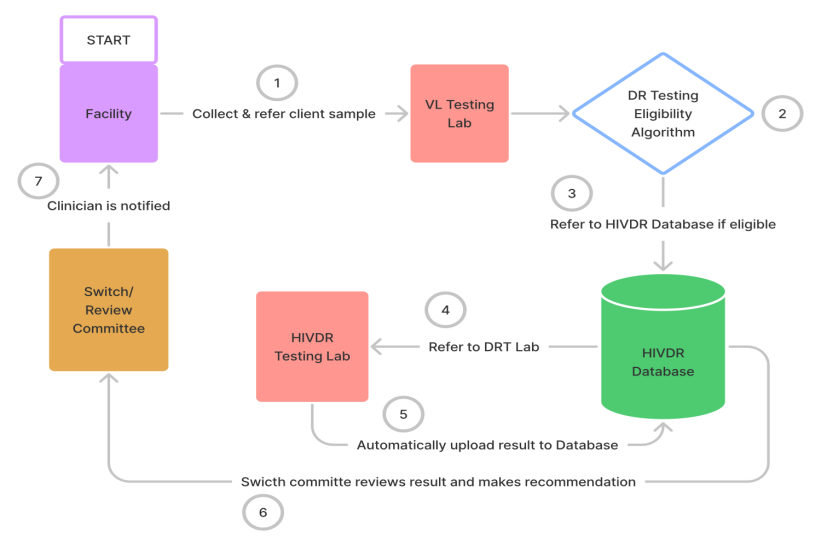
Background

The Uganda HIVDR Database was commissioned by the Ministry of Health as part of a national HIVDR improvement program in 2018 and was deployed in May 2021. Before the Database, turnaround time was as high as 8 months, and it was hard to identify where the delay was.

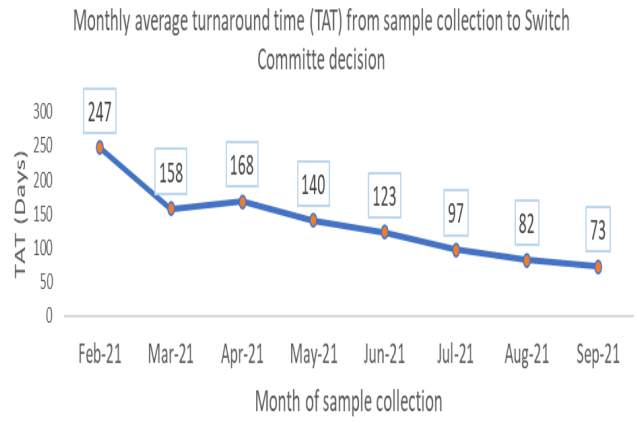
Description



- The Database is PEPFAR funded
- Developed by the Ministry of Health in 2021 with support from CHAI to expedite HIVDR monitoring.
- In Uganda, HIVDR testing is performed after a repeat viral load (VL) > 1000 copies/ml following intensified adherence counselling.
- Each VL result goes through an HIVDR testing eligibility algorithm and profiles of eligible samples are exchanged with the HIVDR Database that also pushes them to the HIVDR testing laboratories' systems.
- After testing, laboratories automatically push the results back to the Database.
- Through the Database interface, clinicians can access the results in real-time, add client medical and social histories, discuss results, make ART recommendations, and monitor clients started on new regimens.
- Each stage is timestamped, and clinicians are notified through email.

Lessons Learned

The HIVDR Database handled **3,575 sample profiles** collected between February and September 2021 and **303 results discussions** were conducted via the Database interface. Real-time data exchange with the laboratories and clinician notifications at each stage have facilitated **a reduction in results handling latencies by an average of 174 days** from 247 days. Timestamping every stage allows for targeted quality improvement interventions at inefficient stages. In addition, the Database provides **better client data security** and **privacy** through **data encryption.**



Conclusions/next steps

The HIVDR database has facilitated the use of data exchange to improve turnaround time for HIVDR results. However, **continuous quality improvement** is needed to further reduce the turnaround time to expedite timely switch decisions and patient management.