Leveraging Data Dashboards for Optimal HIV Care Management and Decision-Making in Burundi

Background

Dr. Willy Mpawenayo's team is tasked with tracking anti-retroviral treatment (ARV) for HIV in Burundi, but having access to real-time data from treatment sites has been a challenge. As the Head of the Monitoring and Evaluation Department in Burundi's National AIDS Control and Sexually Transmitted Infections Program, *Programme National de Lutte contre le SIDA et Infections Sexuellement Transmissible et les Hepatites Virales* (PNLS/IST/HV). Dr. Mpawenayo knows that having this information is critical to effectively treat and prevent the disease. While data was being collected and managed at the facility level, there was no global view of coverage across ARV treatment sites which hindered planning.

Burundi uses SIDAInfo, a web-based electronic medical record system implemented by USAID's Country Health Systems and Data Use (CHISU) program, to manage health data related to people living with HIV (PLHIV) in the country's health care facilities. SIDAInfo tracks PLHIV that take ARVs for HIV treatment, enabling timely identification of those that need additional support. This is critical in HIV treatment to suppress viral loads to both prevent the disease from progressing but also to prevent it from spreading. SIDAInfo also allows effective management of ARV stock levels to ensure adequate availability, and streamlines the generation of vital statistics for HIV care. SIDAInfo has a laboratory module (IBIPIMO) that facilitates efficient transfers of viral load and early infant diagnosis results to health facilities via SMS and email. However, each facility tracked results turnaround times manually.

SIDAInfo is used in over 340 health facilities, with the expectation of additional facilities using the system every month. While the system provides valuable facility-level data on ARV refill delays and viral load testing schedules and results, national-level oversight was limited. This hindered the ability to monitor systemic challenges, such as laboratory performance, that were hindering care.

Steps Taken

CHISU collaborated with the Ministry of Health (MOH) to develop the SIDAInfo Dashboard, a comprehensive digital tool to monitor HIV management performance in the country. The dashboard visualizes delays in ARV refills, viral load/EID testing schedules, and laboratory turnaround times for results. Before implementing the dashboard, CHISU worked with MOH and other stakeholders to identify the key indicators that provide a nationwide overview of HIV management and enable identification of challenges. CHISU then introduced the open-source business intelligence (BI) tools Metabase and Looker to analyze and visualize PLHIV and lab data through user-friendly dashboards that are integrated into the SIDAInfo for easy reference. Dashboards are populated with data from the health facilities that have successfully synchronized with the central database, and CHISU trained health facility managers and district data managers to use dashboards for data analysis and decision-making.

Results and Next Steps

The SIDAInfo Dashboards allow a comprehensive analysis of PLHIV data, HIV prevalence, and viral load testing management. It also provides an overview of PLHIV in Burundi, showing data on ARV coverage, unique identifiers, adoption by province, and viral load test management.

With the new SIDAInfo Dashboard, the PNLS/IST/HV and Clinical Mechanism IPs are now able to monitor ARV supply delays and stockouts at treatment sites daily. This real-time data allows them to quickly identify and address issues at underperforming sites.

SIDAInfo Dashboard
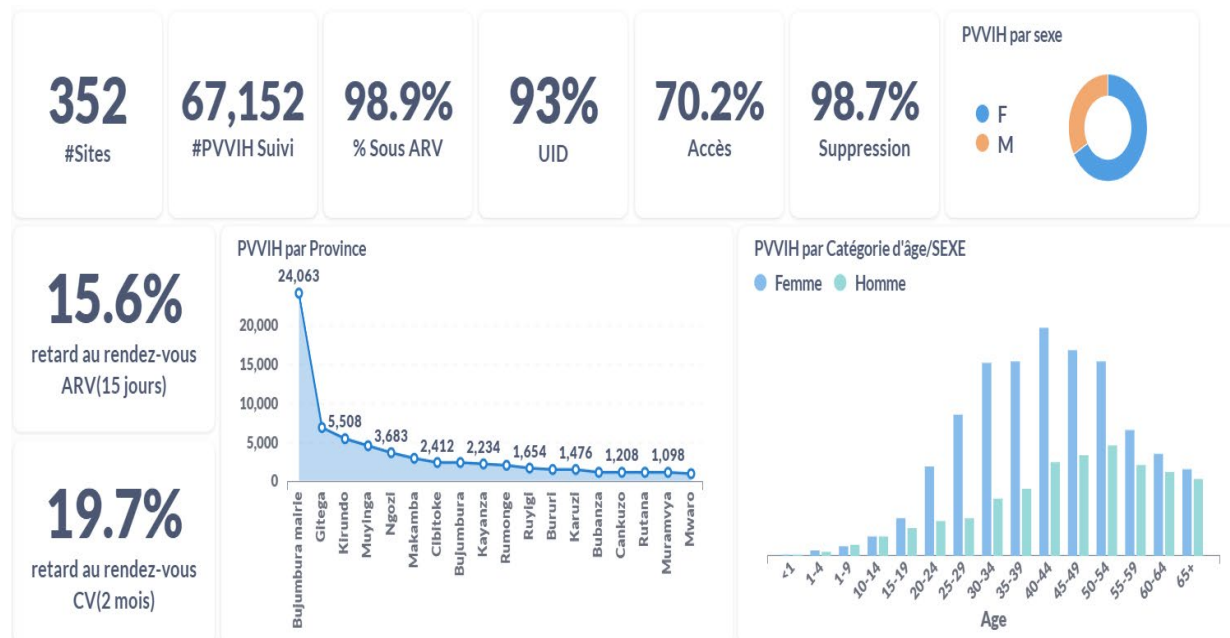
Source: SIDAInfo

"Prior to SIDAInfo, real-time monitoring of treatment site performance was challenging," said Dr. Mpawenayo. "The availability of the dashboard online enables daily tracking of ARV refill delays, viral load/EID testing schedules, and results. This allows us to promptly identify underperforming sites and engage with their managers for corrective action, leading to improved performance."

"The increased oversight from the PNLS through the online dashboard has motivated treatment sites to enhance their performance in PLHIV follow-up." Dr. Mpawenayo said.

The new Dashboard is already helping teams troubleshoot challenges. "With the new SIDAInfo Dashboard, I can see sites that are not synchronizing data with the server," explained Parfait Nibizi, the Database and Informatics Officer at ICAP, a USAID implementing partner in Burundi. "Then I call the regional focal point or the site itself to ask if they have any technical issues. These dashboards are helping us ensure SIDAInfo use continuity."

The SIDAInfo Dashboard also seamlessly integrates with Burundi's national health data platform hosted in DHIS2 as well as the country's laboratory system, enabling efficient data sharing and informed decision-making across Burundi's health system. This is a significant advancement for Burundi, but collaboration among government agencies, NGOs, and private sector stakeholders will be essential for continuity of data dashboards in HIV management and decision-making. CHISU will continue to support the MOH in promoting the widespread use of data dashboards for HIV management and decision-making across all levels of the health system to foster a culture of data use for decision making in Burundi.