METS WATCH
M&E Technical Support Program

The Journey of Viral Load Health Information Exchange in Uganda

In the busy landscape of Uganda's healthcare system, a quiet revolution has been unfolding, transforming the way vital health information is exchanged and processed. This is the Viral Load Health Information Exchange (HIE) initiative, a collaboration between the Ministry of Health (MOH) and key partners like PEPFAR/CDC/USAID.

Imagine a scenario: An HIV client walks into a local health facility, where they undergo a routine Viral Load test. Once the blood sample is drawn, a simple form is filled out, initiating a chain of events that will eventually lead to crucial insights into the client's health. This form, along with the blood sample, embarks on a journey, traveling from the local health facility to the Central Public Health Laboratory (CPHL) in Butabika - Kampala.

In 2018, recognizing the need for more efficient information sharing, MOH, in partnership with PEPFAR/CDC/USAID, embraced the concept of HIE. The goal was clear, to establish a seamless electronic exchange of health data between health centres and CPHL, with Viral Load testing serving as the pioneer

hand in hand with developers at the National Health Laboratories & Diagnostics Services (NHLDS). Together, they set out to integrate the Electronic Medical Records (EMR) system used in ART clinics with the Laboratory Information System (LIS) at NHLDS. This integration, facilitated by the interoperability layer known as the Health Information Mediator (HIM), ensured secure and efficient data exchange.

The impact of this initiative has been profound, over 600 sites across 1300 health centres actively participate in the Viral Load HIE, collectively exchanging data to support thousands of tests annually. On average, 250 exchanges occur each month, reflecting the growing success and adoption of this transformative approach to healthcare information management.

Viral Load HIE initiative is not just about data exchange; it is about empowering healthcare providers with timely, accurate information to better serve their patients. It is about leveraging technology to bridge gaps and streamline processes, ultimately improving health outcomes for communities across Uganda.

The Lab director, Dr. Isaac Sewanyana shows his approval for the VL results on the patient dashboard as Prossy Mbabazi, DHI-MoH, looks on after a successful display. The VL results were pushed by the VL HIE.

use case. This shift promised numerous benefits, chief among them, a reduction in turnaround time for processing results, thereby improving patient care.

Facilitating this transition was the Monitoring and Evaluation Technical Support (METS) program, working

And as we look to the future, it is a testament to what can be achieved through collaboration, innovation, and a shared commitment to advancing healthcare for all.

Kenya Benchmarks UgandaEMR Outpatient Care Integration

In a collaborative effort to enhance electronic medical record (EMR) systems and integrate Outpatient Department (OPD) workflows, METS was invited to share experiences during a workshop held in Mombasa, Kenya in the week of 31st January 2024.

The workshop was aimed at identifying prevalent OPD use cases and define precise requirements for OpenMRS to comprehensively fulfill these needs. Notably, the emphasis was on developing a minimal viable product tailored for larger facilities and the private sector. While OpenMRS boasts comprehensive abilities, the workshop recognized the need to assemble various issues for effective implementation, considering the diverse priorities of country implementers.

Key areas identified for focus included OPD workflow and interaction, billing and health insurance, stock / commodity management, pharmacy and dispensing, laboratory operations, integration and client registry, and reports & dashboards. Special attention was given to OPD workflow cleanup, covering clinical notes, views, medication orders & prescriptions, appointments, queues, and active visits.

Participants discussed immediate actions, including achieving minimal viable products for stock / commodity management, UgandaEMR, billing, clinical notes, KenyaEMR, reports and dashboards, as well as integration and Health Information Exchange (HIE) for UgandaEMR and KenyaEMR. Notably, Global Programs-Kenya announced plans to host teams again

Participants at the Kenya Benchmarks UgandaEMR Outpatient Care Integration

Representatives from esteemed institutions including the University of Nairobi, Makerere University School of Public Health, Global Programs by UCSF in Kenya & Uganda, OpenMRS Inc., Ministry of Health (Kenya), CDC Kenya, Palladium Kenya, Mekom Solutions (OZONE), and facility staff from Mirugi Kariuki Subcounty Hospital came together to exchange insights and strategies. Global programs UCSF and MakSPH are receipents and implementors of the HISTAC grant from cdc which enhances openmrs to better fit country requirements particularly for HIV and AIDS.

in March, with Rwanda expressing eagerness to engage in cross-border initiatives with UgandaEMR/KenyaEMR.

The workshop underscored a commitment to leveraging technology to improve healthcare efficiency and patient outcomes for healthcare systems in Kenya. By collaborating and sharing insights, METS and its partners aim to drive significant advancements in healthcare data management and EMR systems, ultimately enhancing the quality of care provided to communities.

The National Digital Health Plan for the year 2024

Through implementation of the Health Information and Digital Health Strategic Plan 2020/21 - 2024/25, the Ministry of Health (MoH) is committed to utilizing ICT in transforming healthcare delivery in Uganda by enabling information access and supporting healthcare operations, management, and decision-making.

On the 12th - 14th February 2024, the MoH invited partners for a joint planning meeting at Hotel Africana, Kampala whose main objective was orient stakeholders on the progress of implementation of Health Information and Digital Health (HIDH) Strategic Plan 2020/21 - 2024/25 and thereafter review and finalize the 2024

Participants at the Kenya Benchmarks UgandaEMR Outpatient Care Integration

This is achieved through leveraging on the six strategic objectives to support implementation of health programmes nationally and globally. Progress has been made on all objectives but a lot still needs to be

work plan for Health Information and Digital Health activities.

A team from MakSPH/METS contributed to the 2024 HIDH work plan through provision of technical expertise and insights to the discussion and outcomes. The areas of focus included;

SO1: **By 2025, ensure timely availability and access to quality-assured health data,**
SO2: **Ensure effective statistical, analytical and data visualization support for all functions at the national and sub-national levels by 2025**
SO3: **By 2025, the health sector has institutionalized the use of patient-level digital systems at the point of care**
SO4: **By 2025, 60% of both public and private health facilities (All Hospitals, HCIVs, High Volume HCIIIs) have the appropriate infrastructure to implement digital health systems.**
SO5: **By 2025, the health sector in Uganda has a strengthened enabling environment for the implementation of digital health initiatives.**
SO6: **By 2025, the MoH has a functional collaborative mechanism to support health information and digital health implementation, research and innovation..**

Gallery

Group two developing the Community Health Information Systems and Integration Work Plan. A workplan and budget were finalized and shared to all stakeholders for implementation across the health sector in Uganda.

Steering Committee memebers met with Sharon Daves, Ag. Country Director CDC, during their quarterly meeting aimed at strategic implementation of the Program work plan.

METS provided technical support to MoH during the stakeholders' workshop that laid way for development and validation of the EMR Implementation Guidelines in February 2024 at

Participants that attended the Electronic community health information systems workshop where they revised and modified the existing documentation on the user requirements for the electronic medical records system as well as the dashboard UI design in Fort Portal

Group discussions during the Kenya benchmarking workshop for Outpatient Care Integration in UgandaEMR

METS representative, Innocent Musoke (L) gives feedback during a VMMC quality assessement and mentorship and adverse events profiling at Kagando hospital in Kasese District which supported by Uganda Protestant Medical Bureau (UPMB)

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