

Towards a Digital Health Record in Uganda



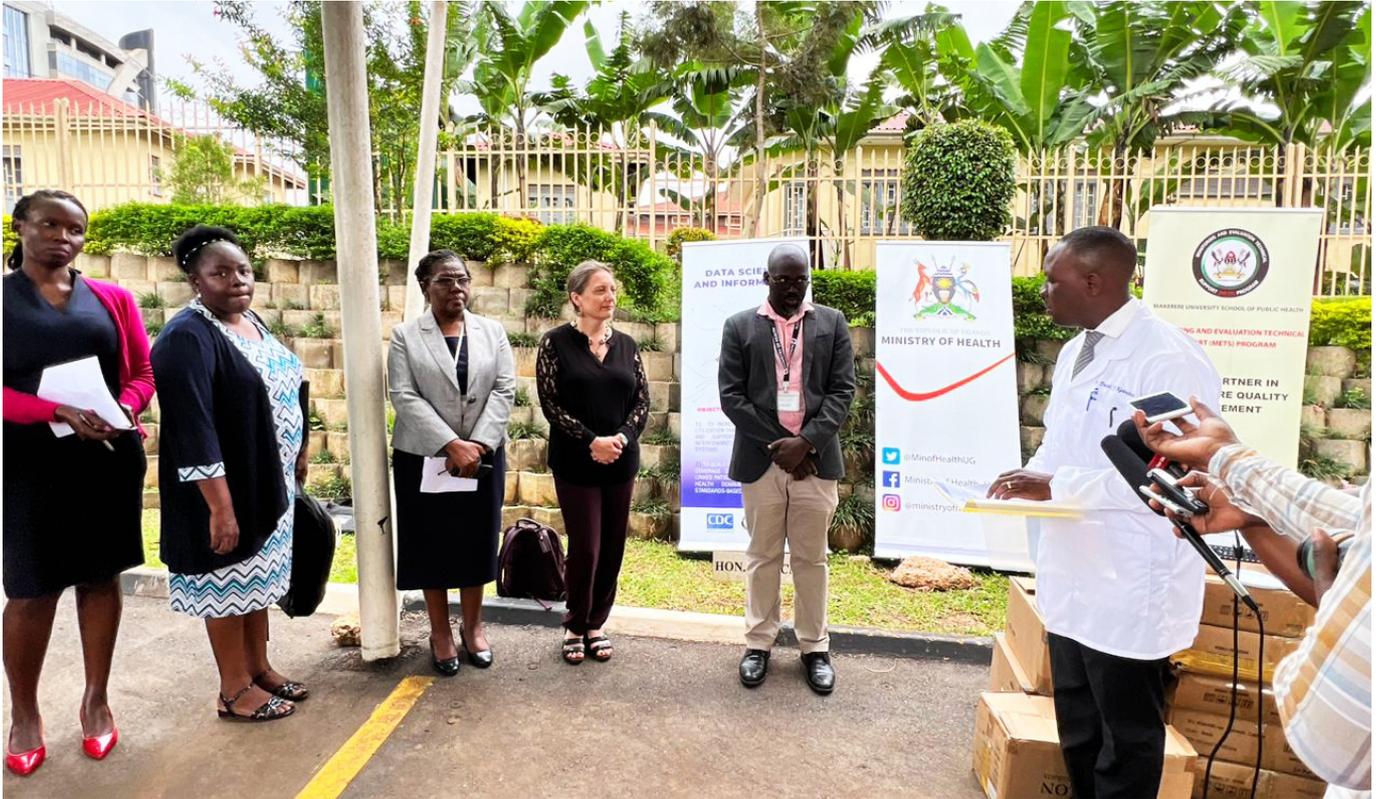
The delegation that attended the handover ceremony held at the Ministry of Health offices in Nakasero

In line with the Ministry of Health Digitalization Strategy, METS supported procurement of a viable standard package of networking equipment for eight (8) of the sixteen (16) Regional Referral Hospitals (RRH). The package of networking equipment is to help functionalize all data

collection points within and across health facilities.

Handing over the equipment to Dr. Daniel Kyabayinze, the Director of Public Health at the Ministry of Health, and representing the Permanent Secretary, Dr. Alice Namale the Director METS pointed

out that the equipment, worth over UGX 640 million, would benefit eight hospitals including Mubende, Masaka, Entebbe, Naguru, Arua, Jinja, Mbarara and Kabale. This equipment includes fiber cables, panels and ports, coolers, internet access points, transceivers, and computers.



Dr. Kyabayinze received the equipment on behalf of the Permanent Secretary, Ministry of Health

Receiving the equipment at MoH headquarters on 3rd April 2023, Dr. Kyabayinze said he was excited to receive equipment to help the ministry capture data especially given the planned move from paper-based records at the health facilities. "This will help align the Ministry of Health's vision to digitize data across its health facilities to improve decision making and improve clients' experiences at health facilities," he said.

Dr. Amy Boore, the Program Manager for Division of Global Health Security CDC noted that the equipment will help with surveillance of trends in emerging diseases will aid linkage of health records for systematic accountability, and reduce forgeries in health data across health facilities hence creating a seamless experience for patients.

It is expected that the digitization of the RRHs will facilitate the movement from paper records to electronic records management systems at all entry points of the Out Patients Department, pharmacy, laboratory, stores, all service



points and administrative units. Paul Mbaka the Assistant Commissioner of Health Services in charge of the Division of Health Information pointed out that the equipment will be functional in facilities with no or limited access to the internet due to their ability to work offline until investments in the national fiber connectivity to support government facilities is implemented by the National Information Technology Authority – Uganda (NITA-U).

Review of Health Management Information System Tools



The Senior Program Officer, SI at MoH-ACP introducing participants to the objectives, methodology, and expected deliverables of the Workshop.

The Ministry of Health AIDS Control Program (ACP) program in collaboration with the Division of Health Information (DHI) and partners at national and subnational levels have been reviewing and updating the Health Management Information System (HMIS) tools for HIV and TB to harmonize reporting and cater for emerging issues. The new additions to HIV care include cervical cancer screening and treatment, COVID-19 vaccination, and Social Networking Strategy (SNS), among others.

With support from CDC/PEPFAR, METS organized several workshops to review and update the HMIS-HIV/TB tools to cater for the additional reporting requirements in the system. A 5-day workshop was held in Hoima March 13 – 17, 2023, aimed at generating printable versions of the tools. The MOH will be pilot testing the tools in sampled districts and health facilities. The feedback from the testing will help improve the program before the tools are rolled out across the country.

The review workshop was attended by technical officers from ACP, NTLF, METS, CHAI, and PEPFAR Implementing partners including data managers and clinicians. By the end of the workshop the following were achieved; a set



The MoH-ACP Representative and Senior Program Officer - HTS, Dr. Christine Katusiime giving opening remarks.

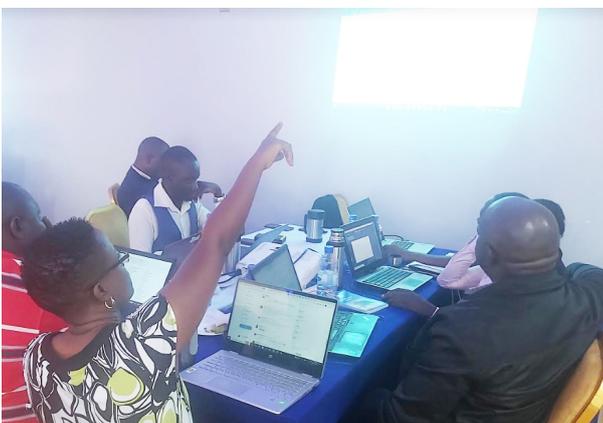
of camera-ready tools ready for pilot testing, an updated list of changes that were made, standard instructions and guides for using the revised tools, printing specifications, a pilot and roll out plan among others.



Herbert Mulira, the SI Technical Advisor at METS and National HMIS Trainer, making opening remarks on behalf of METS during the HMIS HIV Tools review in Hoima City



The HIV Care and Treatment team discussing final edits of the HIV and Care Tools



Dr. Christine Katusiime, the HTS Program Lead at MOH taking her team through the final modifications in the various HTS data tools



Ibrahim Lutalo (2nd L) from METS and VMMC Team Lead making final edits to the prevention tools under their working group

DHIS2 Server Administration Academy

Sharon Abowe is a Health Information Systems Analyst working with the MakSPH-METS Program. She recently traveled to Kigali, Rwanda to attend the DHIS2 Server Administration Academy that was held from 27th to 31st March 2023. Nancy Karunganwa had a chat with her regarding her experience.

Welcome, Sharon! So you attended the DHIS2 Server Administration Academy, can you tell us what the program is all about?

Sharon: Absolutely! Thank you, Nancy. The DHIS2 Academy program aims to strengthen national and regional capacity to successfully set up, design, and maintain systems built in DHIS2 technology. This means that through their courses and intensive in-person training that includes both theoretical and practical sessions, participants become ready to support their organization's data collection, analysis, and reporting needs using DHIS2.

DHIS2 is a software used for data collection, analysis, and reporting in the health sector. The DHIS2 Academy program is a training designed to equip participants with the skills and

knowledge needed to successfully set up, use, design, and maintain DHIS2 systems.

What were some of the topics that were covered during the academy?

Sharon: We were introduced to several different aspects of DHIS2, including the architecture of DHIS2 implementation, SSH tips and tricks, allocation and introduction to working with Linodes, Ansible setup, LXD and containers, backup, upgrades and testing, security, infrastructure, and troubleshooting.

That's a lot of topics to cover! Can you explain some of them in simpler terms?

Sharon: Sure! We learned about the different components that make up a DHIS2 system, like the proxy, tomcat, database, and monitoring. We also learned some helpful tips and tricks for using SSH, which is a secure way to access a server remotely. We were introduced to working with Linodes, which are cloud-based virtual servers. Ansible is a tool that we learned to use for automating server setup and management. LXD and containers are ways to run multiple isolated operating system instances on a single host (physical computer).

Backup was also an important topic, where we learned how to create a plan for backing up data, testing the backups, and restoring data if needed. Upgrades and testing were about keeping the system up-to-date and making sure everything works smoothly. Security was about securing the system and data from unauthorized access (hackers), and infrastructure was about understanding the different hardware and software components that make up a DHIS2 system. Finally, troubleshooting was about learning how to identify and fix issues that may arise in the system.

“ The DHIS2 Academy program is a training designed to equip participants with the skills and knowledge needed to successfully set up, use, design, and maintain DHIS2 systems. ”

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Why is server maintenance so important for DHIS2?

Sharon: For a DHIS2 system to run well, it needs a well-maintained server. This is because the server is responsible for hosting and managing the DHIS2 software, as well as the data collected and analyzed by the system.

Given all that you have learnt, how will this impact your work back here?

Sharon: This knowledge will come in handy while supporting the Ministry of Health in system maintenance and implementation (hosting) after development.

You mentioned that the DHIS2 Server Administration Academy was held in Kigali, Rwanda

this year with 24 countries represented. What was that experience like?

Sharon: It was a great experience. We got to meet and interact with people from 24 countries and learnt from each other's experiences. However, out of the 50 participants, only 5 were female, I believe this is something that needs to be addressed in future trainings. It is important to encourage more women to pursue careers in technology and attend such opportunities.

Some exercises were not just about accuracy but also speed. Unfortunately, this also depended on internet connectivity, which was unstable sometimes.

All participants were divided into

groups of 3, the interesting thing about these groups was the fact that we spoke different languages but still had to work together to accomplish our tasks!

The cultural and language differences were interesting. My funniest language barrier experience was when I asked for a *'boda boda'* to get to a place, and no one had clue what I meant because they call them *'moto'*, French for motorcycle. The language barrier was real! Overall, it was very interesting.

Thank you for sharing your experience with us, Sharon. It sounds like the DHIS2 Academy program was a valuable resource for most the endeavors in improving the health sector that METS is part of.



Gallery



Group photo for the participants of the KP Tracker Regional Trainings for Drop-In Centres (DICs) and Civil Society Organizations (CSOs) that was held in Mbarara from 24-28 April 2023. The main purpose of this activity was to build the capacity of the DIC and CSO staff in data entry, analysis, and reporting of key population data using the KP Combination Prevention Tracker system



Orientation meeting for the coaches for the National Continuity on treatment (CoT) QI collaborative onsite mentorships. These collaborative efforts help to improve continuity on HIV treatment for PLHIV by improving data quality, accounting for those lost and transferred out, preventing interruption in treatment and strengthening the “Bring Back to Care” efforts. METS supports MoH to conduct quarterly coaching to the regions and coordinates the CDC partners to participate in the activities.



METS conducted a Data Quality Assessment for the DREAMS project to validate reported indicators by comparing data in the tracker to that in the registers. Teams also assessed the data quality in terms of consistency and completeness and adherence to layering guidelines.

