



DATA.FI IMPACT STORY

Data.FI works with partners and MOH data managers to improve data quality. Photo by Data.FI

Stakeholders Cooperate to Build Digital Data Skills for HIV Client Tracking

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LILONGWE, Malawi—To achieve HIV epidemic control, countries need to not only identify HIV positive individuals and start them on treatment, but also retain them in treatment over many years. Data on treatment outcomes is therefore essential to all countries battling HIV.

Malawi faced challenges in generating the data needed to track retention of HIV-positive clients in treatment. The country also faced challenges in reporting age- and sex-disaggregated client data to the United States President’s Emergency Plan for HIV/AIDS Relief (PEPFAR), which funds many HIV programs. PEPFAR relies on partners in health facilities and health planning offices to report reliable data about clients who test positive for HIV and their linkage to and retention in antiretroviral therapy (ART)—because when people who test positive are provided treatment and stay on treatment, the rate of HIV transmission in a locale can be managed and decreased.

To address these challenges, the PEPFAR office in Malawi worked with the Ministry of Health (MOH) to scale up two national electronic medical records (EMRs) systems (e-Mastercard and Point of Care [POC]) and address persistent issues with data quality. Yet, even so, barriers persisted in the capacity to generate reliable and accurate data.

Baylor University and Partners in Hope (PIH)—both HIV clinical implementing partners (IPs) for the United States Agency for International Development (USAID) in Malawi—were using the EMRs but were also hand-tallying client data for reporting. Thousands of patient files were being updated manually, requiring many days. This practice overburdened the data entry function, meant that data was not available for monthly and quarterly reporting, and the power of digital EMRs wasn’t being fully used for reporting, programming, and client follow-up. Importantly, because EMRs were not used to track clients who might have defaulted, timely and critical follow-up of the client cohort on ART was hampered.



Scope of work

Data for Implementation (Data.FI), funded by USAID, was asked in 2019 to help IPs scale up use of the EMRs to reduce the data reporting burden for staff and improve data quality. The idea was that if IPs increased use of the EMR system at their sites and could better conduct data cleaning, then the EMR data would be more timely and reliable—and sufficient for robust, routine reporting and programming decisions. For example, using EMRs meant that a report on as many as 2,000 patient records for uptake and retention in ART could be run in seconds, rather than several days.

Over 200 sites are now using the EMRs for reporting on key indicators, rather than reporting manually. Running the reports now takes minutes, not days.

Key to this kind of success was Data.FI's approach of fostering improved collaboration among clinical IPs and the PEPFAR health information system (HIS) partner, Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)/Malawi, funded by the Centers for Disease Control and Prevention (CDC). Data.FI worked with the partners to identify their needs, and together made important improvements in the EMR systems.

As Data.FI's engagement with stakeholders expanded, it became clear that some of the M&E officers at IPs still struggled with analyzing data in the EMRs, especially after EGPAF implemented system updates. Further, many program staff had not yet been trained on data access, analysis, and use—greatly limiting their ability to use the EMRs for improving programs at all levels of the health system. Through continuous engagement, all stakeholders—including the MOH—realized that major data gaps existed and recognized the need for more capacity building. Thanks to this increased collaboration, EGPAF, with Data.FI's support, incorporated feedback from IPs and facilities into critical software improvements for both POC and eMastercard EMRs to improve the data quality, user-friendliness, and accessibility.

One important change was that the e-Mastercard system was adjusted to align more closely with the POC system. This “fix” pleased all stakeholders and was accepted by the MOH and scaled up to 700 e-Mastercard sites. With stakeholders agreed on the way forward, Data.FI began developing in-depth training materials for facilities to cover topics such as data collection, cleaning, analysis, and use for each of the two updated EMR systems.

Adjustments after COVID-19

Unfortunately, just as the training program was gaining momentum, COVID-19 interrupted the work as IPs had to prioritize the rollout of COVID mitigation measures to protect their staffs and patients. The MOH halted its quarterly supervisory facility visits, and IP-led site visits were reduced. Data.FI adjusted, arranging with IPs and EGPAF to provide significant remote, site-level support to ensure sustained data quality in EMR systems. This remote support was especially important because of the system upgrade that occurred just prior to the lockdown.

All stakeholders participated with Data.FI to finalize guidelines and standard operating procedures for data cleaning, analysis, and utilization at facilities. To accommodate the lockdown, Data.FI consulted with district M&E staff, both in-person and remotely, to orient them on the training materials so that they could be responsible for training their facility teams. Following an initial round of trainings, IPs asked Data.FI for additional materials to train program staff on data analysis and use. Also, EGPAF asked Data.FI to orient its district HIS officers on the newly developed capacity-building materials so that these officers could train facility-based system users and HIV program coordinators. With Data.FI's support, EGPAF and the IPs have taken on ownership of capacity-building efforts during the lockdown. Stakeholders report that this approach has worked well, with one PIH team member reporting at a country PEPFAR meeting: "We noted a tremendous improvement in coordination and support with our HIS partner [EGPAF], [and with] Baylor."

Achievements

Data.FI continues to collaborate with EGPAF and clinical IPs to further build the capacity of facility-level staff, with Data.FI joining site visits, when possible. During these visits, Data.FI provides in-depth technical assistance to targeted facilities, leveraging the capacity-building materials developed with the partners, and helps partners build coaching skills. PIH's eHealth manager, for example, noted that, "Each site has some unique challenges, and I am learning a lot on how [Data.FI is] approaching the mentorship to suit the type of learners we are dealing with."

A successful outcome of this approach is that all PEPFAR-supported sites that were visited and trained have begun using the built-in EMR "missed appointments" and "lost to follow-up" (LTFU) reports to coordinate with community health workers for client follow-up. Through these efforts, facilities have increased the number of clients retained in care while improving the data quality of their records.

In the coming year, Data.FI will expand on these successes, building the capacity of both IP and facility-level M&E and program staff, and will conduct training of trainers to institutionalize the capacity-building efforts and reach more districts and facilities.

In less than a year, Malawi has already seen great improvements in data quality and data use for tracking clients and reporting, thanks to the improved EMRs and upgraded staff skills. Moreover, both the clinical IPs and supported facilities are better able to analyze and use data to improve program performance and, ultimately, health outcomes for their clients.

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