Improving Data Quality to Accelerate Ending AIDS in West Africa

#EAWA managers and M&E specialists learning to use E-Tracker (Photo credit: #EAWA Project).

An innovative HIV E-Tracker database is helping strengthen data quality and data use for decision-making in Togo, Burkina Faso, and Benin to accelerate achievements of the Ending AIDS in West Africa (#EAWA) project.

BACKGROUND

The #EAWA project is a cooperative agreement between the United States Agency for International Development West Africa Mission (USAID/WA) and FHI 360. #EAWA was initiated with the goal of accelerating progress across the region toward ending AIDS in West Africa through prevention, care, and treatment, focusing on key populations (KPs) to accelerate the achievement of UNAIDS 95-95-95 targets within all subpopulations, age groups, and geographic settings.

#EAWA operates in five regions in Burkina Faso (Centre, Hauts Bassins, Centre Ouest, Centre Nord, and Boucle du Mouhoun). It supports four regions in Togo (Grand Lomé, Maritime, Plateaux, and Centrale) and four regions/departments in Benin (Atlantique, Couffo, Littoral, and Mono). In Burkina Faso and Togo, the KP program is supported by the Meeting Targets and Maintaining Epidemic Control (EpiC) project, also led by FHI 360.

#EAWA'S CUSTOM E-TRACKER

Launched in December 2019, #EAWA’s HIV E-Tracker (Figure 1) is a centralized, electronic individual-level information system built on the District Health Information Software version 2 (DHIS2). DHIS2 is an open-source platform for collecting, analyzing, visualizing, and sharing data. The data model supports both aggregate and individual-level data, including features for monitoring and following up with individuals over time. The tracking system is web-based, but also offers offline functionality allowing data collection through a tablet without an internet connection. Two programs currently run through the E-Tracker:

1. **HIV prevention and testing**: This program collects information on prevention activities, such as behavior change communication, distribution of condoms and lubricating gels, gender-based violence (GBV), and HIV screening and testing services. It provides the individual-level information necessary to initiate the surveillance of cases.
Monitoring of patients on antiretroviral therapy (ART): This program collects information related to the clinical management of PLHIV, including initiation and follow-up of ART and viral load (VL) monitoring.

**IMPACT OF THE E-TRACKER**

**Improved reporting systems**
The #EAWA E-Tracker has had significant impacts on the national reporting systems of Togo and Burkina Faso. The standardized format has saved time and money through simplifying implementation. It performs several important tasks:

- Enrolls and tracks individuals across the continuum of HIV prevention, testing, care, and treatment
- Improves active case management by scheduling visits and easily tracking upcoming and missed appointments
- Improves the identification of clients eligible for viral load testing and the monitoring of viral coverage and suppression
- Pairs every client to specific providers for services, allowing peer workers to easily manage their cohorts
- Generates reports in real-time to understand performance and target interventions for program improvement
- Enables the collecting and viewing of data both online and offline, using a mobile app or internet browser
- Seamlessly converts individual-level data into aggregate data in PEPFAR's Data for Accountability, Transparency, and Impact Monitoring (DATIM) system, which collects data to analyze program effectiveness and improve overall accountability
- Provides real-time data entry using tablets and improves accuracy and efficiency of MER systems

**Innovations in tracking patients**
The E-Tracker has been vital for reducing and preventing interruption in treatment at each step of the HIV diagnostic and treatment cascade. Interruption in treatment can include newly identified PLHIV who fail to link to or enroll in care and initiate treatment and those on ART who miss appointments and fail to return to care/treatment. The tracker has allowed the program to provide individualized monitoring of patients, through:

1. Pre-appointment notices sent through SMS or other means to remind patients of their ART and VL appointments
2. Generating a list of clients who have missed appointments so that case managers can follow-up with them before interruption in treatment
3. Generating a list of clients who have had interruption in treatment so that case managers can follow-up with them and initiate “back to care” campaigns
4. Tracking VL appointments for sample collection and delivering results, and enhancing adherence counseling for those with unsuppressed VL
Treatment adherence and retention are essential to achieve and maintain viral suppression and ultimately reduce or eliminate HIV transmission. The E-Tracker allows attempts to re-engage any client that has not returned for clinical services or ART drug pickup. The E-Tracker also helps to assess progress toward coverage of ART for all HIV-positive individuals. Its tracking and documentation help to obtain accurate numbers of clients who interrupt treatment, including silent transfers to other clinics, deaths, and those who cannot be located, traced, or returned to care/clinic.

**Increase in treatment uptake**
The E-tracker has been key in the ongoing scale-up and uptake of ART and improvement in retention. In Togo, the #EAWA project’s target for current ART users was 44,912 for February 2022. The project reached 94.0% of that target, recording 42,249 current users. In Burkina Faso, the project surpassed their target of 36,715 PLHIV on ART for the same period, recording 37,447 PLHIV currently on ART. The project has consistently reported an increase in current ART clients each month, with an increase of 5,477 users over a six-month period. (Figures 2, 3).

**Figure 2. Treatment Uptake Trends in Togo, September 2021 to February 2022**

**Figure 3. Treatment Uptake Trends in Burkina Faso, September 2021 to February 2022**
FACTORS IN THE E-TRACKER’S SUCCESS

Focus on data quality, analysis, and use
The #EAWA project focused on improving data quality by using the E-Tracker to study performance gaps at each project site on a weekly and monthly basis. Since FY20, a high frequency reporting (HFR) system has been implemented to closely monitor performance. The E-Tracker also has automated checks, which are confirmed by data quality checks using electronic tools, ensuring high quality data.

The project holds meetings with partner sites to analyze data, share results, and discuss challenges. The project strives for continuous improvement in data use over time through annual refresher workshops for monitoring and evaluation (M&E) officers and data entry clerks of partner sites. To further guarantee the validity of reported results during the COVID-19 pandemic, #EAWA is also planning a comprehensive data quality assessment, including E-Tracker data, after the pandemic.

Continual training
An initial in-person training on the E-Tracker was organized in Togo and Burkina Faso in the first quarter of FY20. Each U.S. President’s Emergency Fund for AIDS Relief (PEPFAR)-supported site received computers and tablets based on the number of M&E officers and data entry clerks devoted to it. A total of 73 desktops, 78 laptops, and 68 tablets were allocated. Participants learned to:

• Master the content of the software and data collection tools implemented in the E-Tracker platform
• Master the extraction and analysis of data and production of reports on performance indicators
• Carry out individualized monitoring of cases throughout the screening and treatment cascade

CHALLENGES AND LIMITATIONS

Required technical resources
Using E-Tracker requires a stable internet connection and a large amount of computing power and data storage, which can become limitations at times. Localization of the DHIS2-based E-Tracker involves adaptation to each country, which requires adequate resources for translation of the user interface elements, messages, layout, date and time formats, and metadata content contained in the database. The user interface and metadata are managed independently and involve tailored processes and tools.

Mitigating risks and ensuring security of PLHIV
#EAWA’s E-Tracker collects data that could harm PLHIV by increasing possibilities of stigma, discrimination, and violence, if accessed. The project is setting a standard for ensuring PLHIV security and confidentiality when using the E-Tracker system by:

• Using a unique identification code (UIC) system in place of real names or any other personal identifiable data
• Training staff to avoid computer security risks and understand how stigma, discrimination, and violence impact PLHIV
• Taking precautions to ensure that the computer screen or tablet screen is not visible to other people when working on E-Tracker
• Creating strong passwords as recommended by software managers

LESSONS LEARNED

Implementing a custom designed E-Tracker is a complex undertaking. #EAWA’s experience offers many lessons for other countries interested in replicating the E-Tracker. Key takeaways include:

• Facilitates automated reporting of more than 70 PEPFAR MER and custom indicators; training on indicators and systems is essential for maximum benefits.
• User-friendly and two five-day training sessions were enough to start implementing the system, but continuous supportive assistance, refresher courses, supervision, and mentoring are required.

• Requires recruiting and training dedicated data entry clerks to ensure real-time data entry at site level.

• Requires high speed internet connectivity; slow connectivity creates problems and delays, including during training sessions. While the E-Tracker system allows data collection without internet by using a tablet, an internet connection is necessary for data extraction and analysis.

• Tracking missed appointments for ART refills or VL testing and facilitating contact with each person through phone calls and home visits are easier.

• Saves time and effort while increasing accuracy, reliability, and quality of data and reporting; provides real-time data to support continual improvement.

• Improves client records and enables closer supervision of client care, including sending reminders for scheduled appointments.

For more information about the #EAWA project, please email: eawainfo@fhi360.org

This document is made possible by the generous support of the American people through the United States Agency for International Development (USAID) and the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR). The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID, PEPFAR, or the United States Government.