Viral Load Coverage and Suppression Increased among People Living with HIV in Togo

A focused campaign brought strong results even during public health restrictions due to rising COVID-19 cases.

The Ending AIDS in West Africa (#EAWA) project in Togo achieved impressive viral load (VL) testing performance from October 2020 to August 2021. Of the 37,887 people living with HIV (PLHIV), 35,058 were eligible for testing, and 30,191 received tests. Testing coverage grew from 49% to 70% before a decline to 59% due to a reagent stock-out, resolved in late July 2021. Similarly, VL suppression among clients jumped from 82% in November 2010 to 87% in August 2021 despite COVID-19 associated challenges during the past 18 months.

The goal of the Ending AIDS in West Africa (#EAWA) project, funded by the U.S. Agency for International Development (USAID) through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and led by FHI 360, is to ensure sustainable suppression of VL among PLHIV who are on antiretroviral therapy (ART). VL testing is the gold standard for clinical monitoring of PLHIV. Following up with clients on ART is important to ensure treatment is effective and their health is improving.

The VL campaign, which began in December 2020, has focused on ensuring that:

- Health care sites collected blood samples from 100% of clients eligible for VL tests
- Collected samples were transported to an appropriate laboratory and analyzed
- Results were transmitted to service points and to clients within 14 days
- At least 95% of individuals tested demonstrated suppression
- Results were used to improve client care, treatment, and continued suppression

Differentiated service offerings provided for clients with disabilities or reduced mobility included in-home collection of blood samples, delivery of test results, and follow-up to prevent ART interruptions.
The #EAWA project’s improved procedures have demonstrated that it is possible to collect and process VL samples to return results to health care sites within 14 days. The preconditions are consistent availability of reagents and designation of particular laboratories to improve efficiency.

Health care sites have been motivated to continue campaign procedures by making them part of normal routines, e.g., by coordinating collection of samples with client appointments for ART refills. A suppressed VL is a precondition for enrolling clients in some differentiated models of care, such as multi-month ART dispensing, which reduces the burden on facilities and allows clients to access treatment and VL tests in convenient and client-centered ways.

The processes used by #EAWA to find and implement solutions are described here, and pointers are included to assist other countries dealing with similar challenges in their VL continuum of care.

**STRATEGIC INNOVATIONS**

Until November 2020, access to VL testing was low: only 14% of PLHIV on ART had been tested. Among those with available results, only 82% (against a 95% target) demonstrated VL suppression. An analysis revealed the following potential reasons:

- **Low demand for VL testing** caused by poor understanding of the purpose, difficulty accessing testing sites, insufficient availability of tests, and stock-outs of reagents and consumables.
- **Samples collected and transported** by a laboratory technician, which could cause delays and is not necessary since the task can be done by a properly trained expediter.
- **Delays in returning results** caused by slow laboratory analysis and stock-out of needed supplies.
- **Reagent stock-outs** caused by delay in shipment and insufficient supply chain data visibility resulting in turnaround times of three months or more for results.
- **Shortage of trained staff** for VL testing.

Specific processes for improving VL suppression results were developed for health care sites and technical laboratories.

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**At health care sites**, two innovations were implemented to collect samples from the highest number of people eligible for VL tests. On-site collection was intensified by reimbursing clients who could not afford travel to the site. And when necessary, VL samples were collected at the homes of clients and in local communities.

At the start of each week a list of clients from the #EAWA database (DHI2 E-tracker) eligible for testing was updated and sent to service providers at each site. It contained telephone numbers and ART renewal appointment dates. Medical care records were expanded by inserting individual VL monitoring sheets that summarized blood sample collection dates and previous test results.

From this list, all eligible clients who had not been tested were contacted and sensitized on the importance of VL and invited to visit their health care site to provide blood samples. The possibility of taking the VL test at home or in the local community was offered to clients who could not travel to the test site due to COVID-19 restrictions; those who were elderly, bedridden, or had reduced mobility; children; and others.

Health care sites identified multiple locations within the facilities (such as pediatric unit, general medicine unit) and at drop-in centers where VL blood samples could be taken under supervision of an in-person laboratory.
technician. Clients could arrive at the center at any time, even over the weekend, for the test. Blood samples from 24 PEPFAR sites were sent to one of seven selected molecular biology laboratories twice a week on average. These steps increased the proportion of clients eligible for a VL test whose blood was collected from 4% in October 2020 to 86% in August 2021 (Figure 1).

**Figure 1. Proportion of clients eligible for viral load test whose blood was collected, October 2020—August 2021**

At the laboratories, changes were made to speed up testing and improve reporting time for results. The quantity and quality of laboratory technicians were reinforced with funding and training, and data entry clerks were recruited and trained to support the laboratories from December 2020 to September 2021.

Weekly coordination meetings were held to address difficulties. #EAWA and the Global Health Supply Chain—Francophone Task Order (GHSC-FTO) advocated for provision of VL reagents and consumables by the National Program for the Fight against HIV/AIDS (PNLS), The Global Fund to Fight AIDS, Tuberculosis and Malaria, and PEPFAR. Each laboratory set up a system for sending results to the sites using telephone calls, messaging, and the WhatsApp social network. Hard copies of results were retrieved each week when new samples were submitted, and an Excel file was also sent to the sites each week.

VL testing coverage was 49% in October 2020, 50% in January 2021 when the campaign began, and rose swiftly to 70% in March 2021 (Figure 2). Momentum was lost in April due to VL reagent shortages, causing a drop to 59% in July. Coverage improved to 61% in August following supply improvements, due partly to PEPFAR Emergency Commodity Fund (ECF) support from end July 2021.

**Figure 2. Proportion of clients eligible for viral load test and on ART with a documented viral load result, October 2020—August 2021**

Note: TX_PLVS D is number of ART clients with viral load documented
SEQUENCE OF CAMPAIGN ACTIVITIES

The campaign has been implemented in two phases. The first, from December 2020, focused on collecting VL samples from eligible clients at health care sites and their blood collection points. The second phase, from January 2021, has focused on improving efficient technical handling of VL samples by laboratories.

The blood sample collection efforts involved all 24 #EAWA and PEPFAR partner health care sites and the technical handling drive involved seven laboratories. A defined set of activities was implemented to:

• Improve the collection of samples from eligible clients
• Improve the rate of transport of samples to the laboratories
• Improve on-site reporting of results
• Improve use of results to strengthen client follow-up

The first step was a virtual meeting organized with all stakeholders including #EAWA, GHSC-FTO, PNLS, and actors at the 24 project sites involved in frontline implementation. Then, weekly face-to-face or virtual meetings were held among site stakeholders and #EAWA coaches to discuss progress in achieving targets, identifying difficulties, and building future approaches.

The #EAWA team coordinated and monitored implementation activities in collaboration with PNLS and GHSC-FTO to ensure availability of consumables at VL sites. Performance monitoring was done through daily data collection by telephone.

LESSONS LEARNED AND OPPORTUNITIES

The experience in Togo may be helpful to other programs because it has uncovered barriers as well as opportunities to strengthen VL coverage and suppression.

Overcoming barriers requires ensuring continuous availability of reagents and other consumables for VL testing, partly by coordinating multi-source delivery of commodities and quantifying needs accurately. Efficiency measures are also necessary to return results to sites within 14 days.

Continually improving project management requires emphasis on weekly monitoring of the VL cascade and regular meetings with all stakeholders to motivate health care providers, laboratories, and clients to understand the importance of monitoring VL and pay attention to VL issues.

Developing and implementing intensified VL activities requires collaboration among all actors including Ministry of Health, Global Fund, PEPFAR, supply chain and services delivery implementing partners, laboratory staff, clinical staff, case managers, and PLHIV associations. For instance, the service delivery implementing partner needs to reinforce coaching and performance monitoring, health facilities need to improve collection of samples, and VL laboratories must be more efficient.

Expanding VL coverage requires improving demand for tests, avoiding stock-outs of supplies, and accelerating the return of results.

Coordinating and collaborating with the supply chain partner requires addressing logistics challenges such as rigorous monitoring of inventory levels combined with placement of emergency orders. In collaboration with the supply chain implementing partner (GHSC-FTO), the #EAWA team organized a transfer of VL reagent stock between laboratories to ensure continuity of services.

Successfully handling VL issues requires the involvement of all stakeholders and participants including providers, laboratories, and clients. To fulfill the target of 95% of PLHIV having a suppressed VL by 2030, it is vital to ensure that 100% of eligible clients are tested. It is also essential to have well sensitized and trained staff and continuous availability of VL reagents and commodities to avoid supply problems.

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