

Liberia's multipronged strategy to improve viral load testing among people living with HIV

SUCCESS STORY | JULY 2022

Using a strategy to address issues related to supply and demand for viral load (VL) testing, Liberia's national coverage rose from 1,314 tests in 2019 to 3,057 in 2020, and VL suppression improved from 77 percent to 82 percent. LINKAGES and EpiC program staff worked with the National AIDS Control Program and civil society partners to introduce the successful acceleration plan across 21 antiretroviral therapy facilities.

Viral load (VL) testing is an important aspect of HIV management that helps monitor how well people living with HIV (PLHIV) are responding to treatment. It assists in monitoring and ensuring viral suppression and diagnosing treatment failure. Routine VL testing not only improves treatment quality and health outcomes for PLHIV, but also contributes to HIV prevention efforts. When PLHIV achieve viral suppression, the virus cannot be transmitted to others.

UNAIDS estimates 35,000 people are living with HIV in Liberia.¹ The country's national HIV treatment guidelines recommend that a VL test be administered six months after HIV treatment is initiated and annually thereafter. However, a limited supply of VL testing machines, frequent laboratory technician turnover, clinician burnout, laboratory power outages, and delays in transporting samples have made attaining this recommendation a challenge.

FHI 360 began working with civil society organization (CSO) partners and the Liberian government to optimize and expand VL testing in May 2019 under the United States Agency for International Development (USAID)- and U.S. President's Emergency Plan for AIDS Relief (PEPFAR)- supported Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project. In October 2020, those efforts transitioned to the USAID- and PEPFAR-supported Meeting Targets and Maintaining Epidemic Control (EpiC) project, also led by FHI 360, under which the country has demonstrated important progress in VL testing coverage and viral suppression.

Building a plan to accelerate progress

LINKAGES and EpiC program staff worked closely with the Liberian government's National AIDS Control Program (NACP) and civil society partners to design strategies to address issues with supply, coordination between laboratory and clinical staff, sample transportation, and demand for VL testing. These strategies were then incorporated into a VL coverage acceleration plan that was introduced across 21 antiretroviral therapy (ART) facilities. Elements of the plan included:

- Leveraging resources from the Global Fund to address upstream factors related to VL testing equipment repairs, reagent supplies, and maintenance
- Designing a hub-and-spoke system that linked ART facilities to the country's available VL testing machines according to local laboratory capacity
- Developing and circulating a directory to stakeholders (including ART facilities and CSOs) that describes the location of VL testing machines and their associated ART clinics to improve linkage and efficiency of logistics for handling samples
- Hosting advocacy and strategy meetings with CSOs to facilitate demand creation for VL testing among PLHIV

¹ Joint United Nations Programme on HIV/AIDS (UNAIDS). Country factsheets 2020: Liberia HIV testing and treatment cascade [Internet]. Geneva: UNAIDS; c2022. Available from: <https://www.unaids.org/en/regionscountries/countries/liberia>.

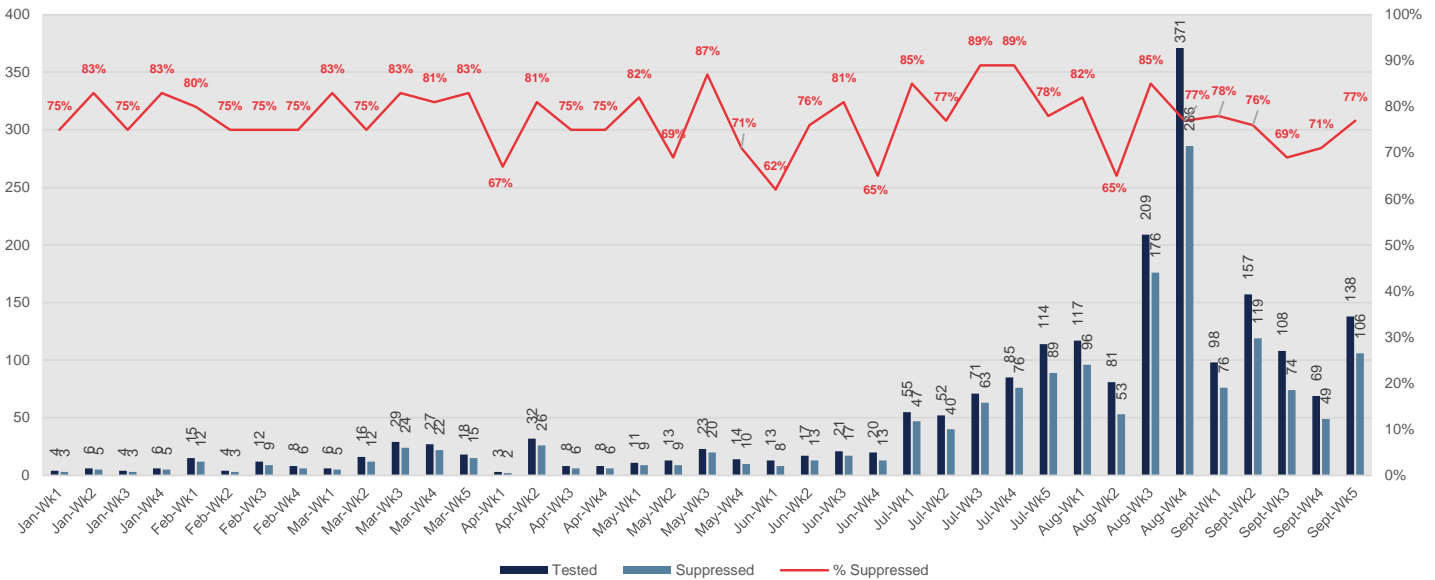


- Engaging with a local network for PLHIV, which led to the hiring of qualified physician and nursing assistance consultants in five facilities. The consultants, who currently live with HIV, facilitate pre-clinic health talks and adherence counseling with VL-focused information and education; contact eligible PLHIV who missed VL appointments; collect VL samples and transport them to laboratories for processing; return VL results for quick clinical decision-making; and track and provide intensive support to PLHIV with unsuppressed VL through follow-up home visits and phone calls
- Establishing monthly laboratory technician meetings and quarterly joint meetings with technicians and clinicians to support smooth functioning of the program

Increased testing and suppression

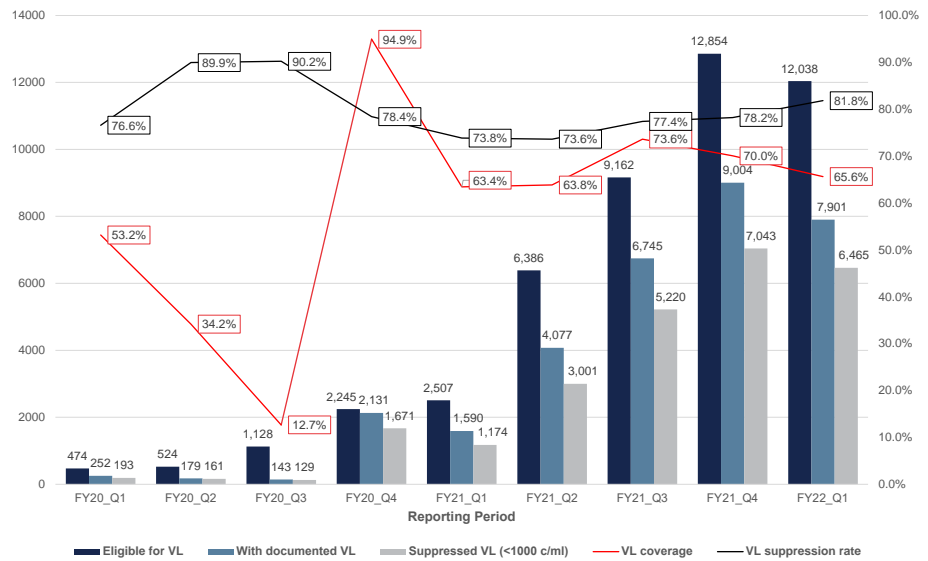
Together, these strategies helped accelerate VL coverage throughout Liberia, yielding notable achievements. National VL testing coverage increased from 1,314 tests in October–December 2019 to 3,057 during April–June 2020. The increase in testing coverage corresponded with an improved viral suppression rate during the same period, from 66 percent to 75 percent. In 13 EpiC-supported facilities located in Montserrado County, VL tests increased from an average of 52 per month January–March 2020 to 568 per month July–September 2020 (Figure 1). The improved VL testing coverage and suppression rates benefited both clients and providers. Using data on the testing coverage and results, providers were able to identify more PLHIV stable on treatment, which meant they were eligible to be transitioned to convenient differentiated ART services requiring fewer clinic visits.

Figure 1. VL tests and suppression rates at EpiC-supported sites, January–September 2020



Trends in VL testing uptake, documentation of test results, and suppression rates continued to improve over time (Figure 2). Over a two-year period, VL testing coverage increased from 53 percent to almost 66 percent. Similarly, the VL suppression rate increased from 77 percent to 82 percent.

Figure 2. Trends in VL uptake and suppression among all populations, Q1 FY20–Q1 FY22



The spike in VL coverage from Q3 FY20 to Q4 FY20 is attributed to EpiC’s work with NACP and the Ministry of Health to roll out Liberia’s national VL acceleration plan.

Next steps

Liberia’s national HIV program has made considerable progress in expanding VL testing coverage. Lessons from the VL acceleration initiative will inform ongoing efforts to achieve epidemic control in the country. The combination of efforts highlighted, especially the inclusion of dedicated people to focus on VL sample collection such as health workers living with HIV, will be expanded to help accelerate VL testing coverage. The hub-and-spoke system will also be scaled up to help distribute the VL testing workload among laboratories to ensure effective coverage. Finally, EpiC will engage with the national HIV program to scale up pre-clinic adherence counseling and dissemination of VL-focused information, education, and communication materials to increase demand for VL testing among PLHIV.

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