FHI 360 and EpiC's Partnership with the Private Sector Revolutionizes Viral Load Testing in Nigeria

SUCCESS STORY | NOVEMBER 2023

Key Highlights

- **Strategic partnership:** FHI 360, EpiC, and AHNi partnered with Zankli Laboratory, a private entity, to leverage its expertise to overcome HIV viral load testing challenges in Adamawa State.
- **Significant reduction in turnaround time (TAT):** The private partnership with Zankli Laboratory and private sector stakeholders reduced TAT from two to three days for viral load testing, ensuring swift delivery of vital information to health care providers and patients, thus improving care efficiency.
- **Improved viral load coverage:** Zankli Laboratory's efficient sample processing increased viral load coverage by 53% in 25 health care facilities, enhancing care for people living with HIV.
- **Empowering health care providers and patients:** The partnership provided swift viral load results, empowering health care providers and inspiring hope for a healthier future in Adamawa State.

Background

In Nigeria, monitoring HIV treatment outcomes for clients on antiretroviral therapy (ART) continues to pose significant challenges. This is especially true in Adamawa State, where the turnaround time (TAT) for viral load (VL) results has increased from an average of three days to a staggering 29 days. These delays are typically caused by recurring equipment downtime, including nonfunctional equipment and intermittent shortages of essential testing reagents, which results in prolonged waiting times for VL samples at hub facilities. VL samples are also frequently rerouted to distant polymerase chain reaction (PCR) labs, which leads to increased TAT for VL results throughout the state.

This prolonged TAT impedes the ability of clinicians to make timely decisions regarding clients' care. Such delays can impose severe consequences on the state's efforts to control the HIV epidemic and can undermine the overall quality of care provided to people living with HIV (PLHIV). The extended TAT also negatively affects the achievement of overall VL coverage, which serves as a key performance indicator for effective treatment. Addressing these challenges and reducing the TAT is essential for PLHIV, enabling timely clinical interventions, enhancing the quality of care, and strengthening HIV control efforts. The engagement of the private sector to address bottlenecks across the VL testing value chain is one option to leverage local capacity to improve VL coverage and the quality of care for PLHIV.

The Meeting Targets and Maintaining Epidemic Control (EpiC) project, funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Development (USAID), led by FHI 360, received Headquarters Operational Plan (HOP) funds from USAID to engage the private sector to support HIV VL testing in Nigeria from November 2022 to October 2023. The objective of the activity was to leverage the expertise and resources of the private sector, including private laboratories, to improve the efficiency and reliability of VL testing and reduce the TAT for timely clinical care and treatment for PLHIV. EpiC partnered with a local organization, Achieving Health Nigeria Initiative (AHNi), a prime partner on the USAID-funded Accelerating Control of the HIV Epidemic in Nigeria Cluster 1 (ACE 1) project in Adamawa State, to address the persistent bottlenecks in VL testing.

Description

FHI 360 and EpiC implemented a process to engage and work with the private sector on VL testing. This included a site evaluation led by the FHI 360 and EpiC team, where Zankli Laboratory was selected. Zankli is a private laboratory known for its excellence in medical diagnostics. A private transportation company was also engaged to safely ship samples from health facilities within the required temperature range. The drivers of this private transportation company were trained on bio-risk management and sample handling protocols to ensure that VL samples were handled with care. Health facility staff were also trained to collect and properly package samples.

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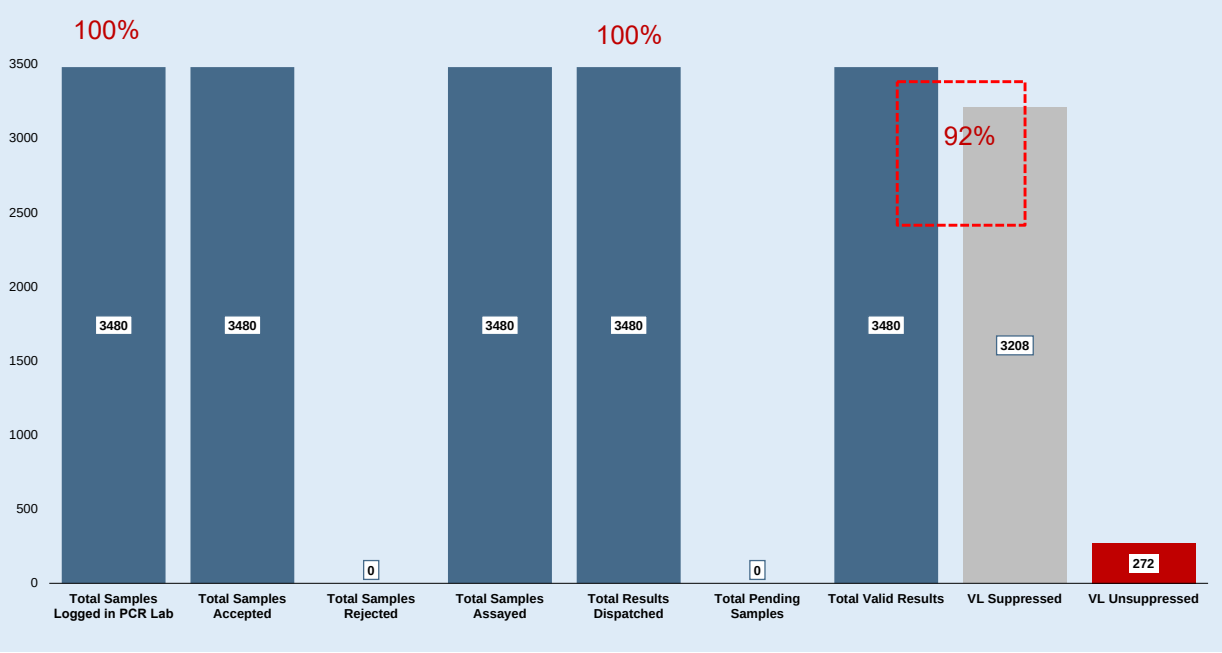
In total, 25 health care facilities in Adamawa State were selected to have VL samples processed from July to August 2023. Zankli's sophisticated logistics system ensured the swift and secure transportation of samples from the hub facility, where all VL samples in Adamawa State are logged, to Zankli Laboratory in Abuja. A total of 3,480 VL samples (2,812 in July and 688 in August) were collected and processed at Zankli Laboratory during the two-month HOP VL activity period, among which 92% were virally suppressed (Figure 1).

Figure 1. Cascade of VL testing value chain from Zankli Laboratory



All results were promptly shared electronically with the originating health facilities through the Nigerian Laboratory Integrated Management System (NLIMS). The analytic TAT for these samples was two to three days. This swift processing stood in stark contrast to the public laboratory, where samples collected over a span of nine months prior to the HOP VL implementation period had an average TAT of 29 days. Zankli Laboratory's rapid analysis and return of results significantly outpaced the timelines of the public facility. Using the national system helped streamline and simplify data documentation across the private and public sectors.

The transformative partnership with the Zankli Laboratory and the private sector significantly improved VL testing coverage in health facilities. Cumulatively, for the 25 health facilities in Adamawa State, VL coverage in the three months prior to implementation was 76.6%. Over the three months following implementation, VL coverage in the same health facilities increased to 91%. This partnership with the private sector ensured accurate, swift, and reliable VL testing in Adamawa State, empowering health care providers and positively affecting PLHIV.

Lessons learned

Throughout this intervention, valuable lessons unfolded, highlighting the importance of collaboration, funding, technology, and effective monitoring.

1. Private PCR laboratories: swift results, quality care

One revelation was the transformative impact of private PCR laboratories on VL testing. Through advanced technology that included electronic data management and improved logistics, these laboratories significantly reduced TAT for VL test results. Swift results meant timely decision-making for health care workers, especially for clients with unsuppressed VL, ensuring a higher quality of care for clients. Zankli Laboratory played a key role, emphasizing the importance of reliable partnerships.

2. Collaboration: the heartbeat of progress

Partnering with health care workers, laboratory personnel, and essential service providers, at a private transport company, was pivotal. These collaborations streamlined the entire process, from sample collection to secure transportation, precise analysis, and timely results. The unified efforts of each stakeholder emphasized the importance of collective and coordinated action.

3. Funding: nurturing initiatives to bloom

Adequate funding was a critical piece of this initiative. It was the driving force behind timely and accurate VL testing. With sufficient financial support, private laboratories like Zankli could continue their work.

4. Monitoring and evaluation: guardians of efficiency

Continuous monitoring and evaluation allowed FHI 360 and EpiC to scrutinize its progress and maintain a reduced TAT and high coverage rates. This ongoing assessment validated the project's efforts but also paved the way for improvements, emphasizing the need for constant monitoring to ensure the sustainability of impactful health care solutions.

Conclusion

FHI 360 and EpiC's collaboration with Zankli Laboratory and private sector stakeholders reduced the TAT for HIV VL results to two to three days. Beyond increasing efficiency, this achievement empowered clinicians to provide prompt interventions and treatment adjustments for PLHIV, which supports the goals of reducing morbidity, mortality, and HIV transmission. The shortened TAT could also improve quality of life for PLHIV by promoting better adherence to treatment plans. This initiative should be considered for expansion nationally and beyond. Replicating this partnership with private laboratories could significantly reduce TAT for VL samples and improve treatment among PLHIV.

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