

Public-private partnerships: Closing viral load testing gaps with private laboratories in Botswana

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EPE316

BACKGROUND

Challenges to viral load (VL) testing include equipment breakdowns, reagents stock-outs, and shortages of trained staff, resulting in long turnaround times (TATs) for results. These challenges prevent timely decision-making and support related to the client care needed to improve clinical outcomes. In Botswana, routine public sector VL testing was drastically affected at the national level by the COVID-19 response measures, exacerbating existing challenges. The USAID/PEPFAR-funded Meeting Targets and Maintaining Epidemic Control (EpiC) project, led by FHI 360, piloted VL testing through private laboratories.

DESCRIPTION

EpiC contracted with a private laboratory to conduct VL testing at US\$20 per test—comparable to public laboratory testing and less than half the usual cost in private laboratories. From October 2020 to September 2021, health providers in 12 clinics across 10 districts in Botswana collected VL samples at the health facilities or referred clients to their choice of one of the nation's 25 private laboratory-operated depots for VL sample collection. Health providers helped clients schedule their VL sample collection at these depots at convenient times, including weekends. The private laboratory transported and processed samples,

then returned the results to the referring provider through a secure electronic portal within 24 hours.

In Boteti district, a rural region, VL testing was fully halted due to COVID-19 testing from March to August 2020 resulting in a backlog of VL testing among eligible PLHIV. EpiC supported VL sample collection and testing through the private laboratory from July to September 2021.

LESSONS LEARNED

VL testing through private laboratories offers clients more options for when and where to have their samples collected, increasing convenience and improving VL testing coverage among key population (KP) individuals who may not have received a VL test otherwise due to challenges in accessing services. Between October 2020 and September 2021, 5,123 VL tests were conducted via private laboratories (Figure 1), 20% of which (1,042) were for KP individuals. At the 12 participating clinics, VL testing coverage increased significantly from 83% to 90% among KPs and slightly among the general population (90% to 91%).

In Boteti, a data review conducted as part of the landscape analysis found 3,743 general population clients were eligible for VL testing, and 2,243 were reached with the private laboratory intervention over three months. Among those reached, 1,062 (47.3%) had never had a VL test since starting antiretroviral therapy (ART) (Figure 2). Following the private laboratory testing intervention, the TAT for results decreased from a range of one to six weeks to 24 hours.



A nurse prescriber collects viral load samples in the community.

CONCLUSIONS

VL testing through private laboratories was feasible in Botswana at costs similar to public laboratory testing in the country. Countries with strong private laboratory systems should consider private–public partnerships to increase national VL testing capacity during COVID-19-related disruptions and beyond. This model could help close VL testing gaps for KPs and members of other population groups who face challenges in accessing VL testing services and increase timely use of the results for improved clinical outcomes.

FIGURE 1. Viral load testing September 2020–September 2021

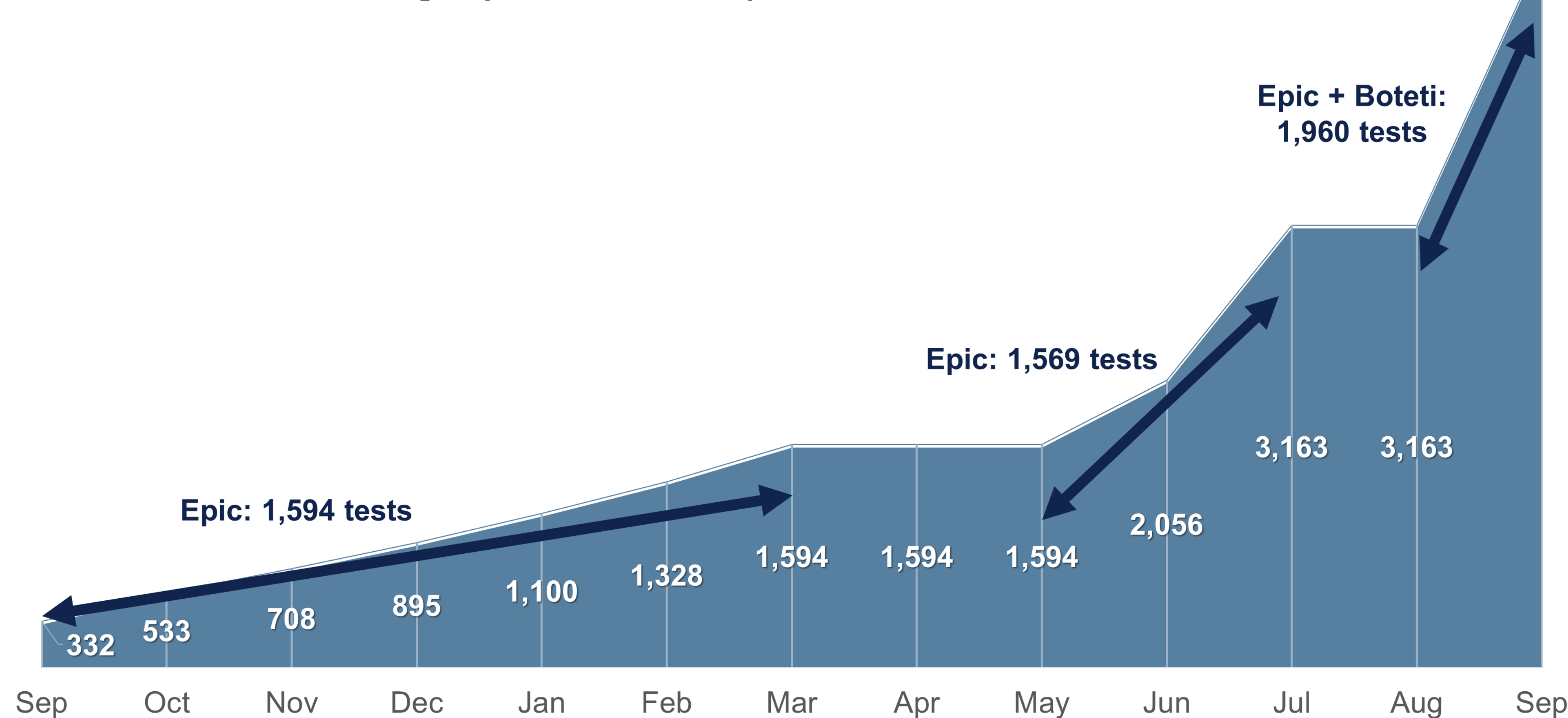
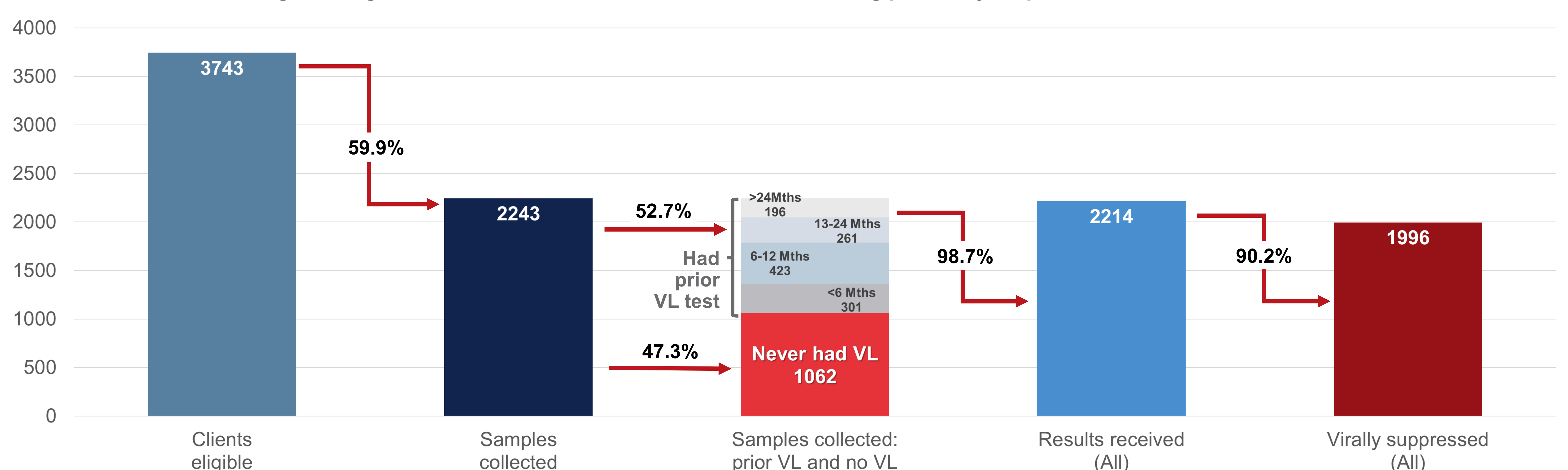


FIGURE 2. Viral load testing coverage in Boteti district before the decentralized testing pilot, July–September 2021



Presented at AIDS 2022 – The 24th International AIDS Conference

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This work was 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 the EpiC project and do not necessarily reflect the views of USAID, PEPFAR, or the United States Government. EpiC is a global cooperative agreement (7200AA19CA00002) led by FHI 360 with core partners Right to Care, Palladium International, and Population Services International (PSI).

