

LabCoP Supports Electronic Return of HIV VL Results in Uganda

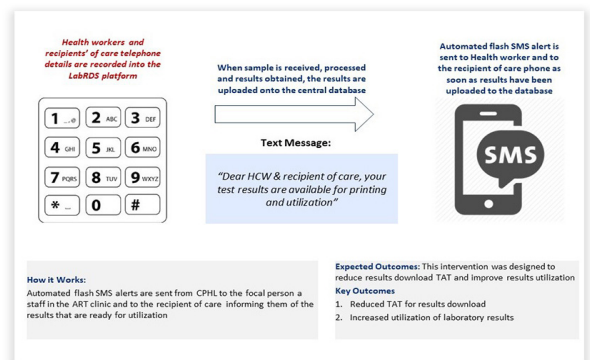
Delays in the return of HIV viral load (VL) test results to recipients of care present missed opportunities for their engagement into clinical care and, ultimately, the improvement of health outcomes. A timely return of results is often hindered by several logistical complexities that may potentially be overcome through the use of technologies like short message service (SMS), unstructured supplementary service data (USSD), mobile applications, email, and dashboards.

sent to the client's mobile phone as soon as results are uploaded to the web-based results dispatch system. The SMS uses a safe and secure USSD system to inform clients that their results are now available at the health facility, and the same SMS is sent to the corresponding healthcare worker, alerting them of the availability of the results in the LabRDS.

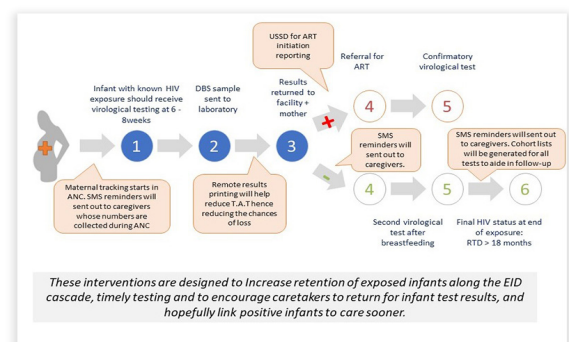


Uganda team of LabRDS super users in the eastern region

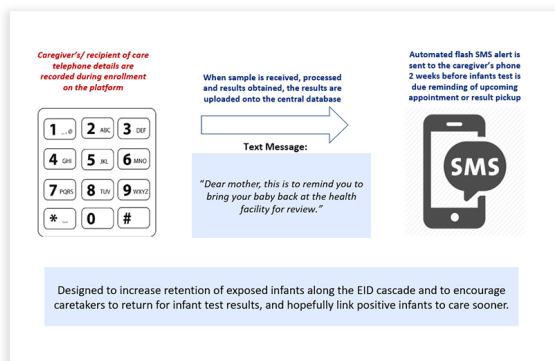
For example, in Uganda, the LabCoP project supported the ministry of health through the department of National Health Laboratory & Diagnostic Services (NHLDS) to roll out the Laboratory Results Dispatch System (LabRDS). This system, which was developed with support from the [United States President's Emergency Plan for AIDS Relief \(PEPFAR\)](#), uses a client-centred approach where an SMS is



EID/VL flash SMS alert to health workers



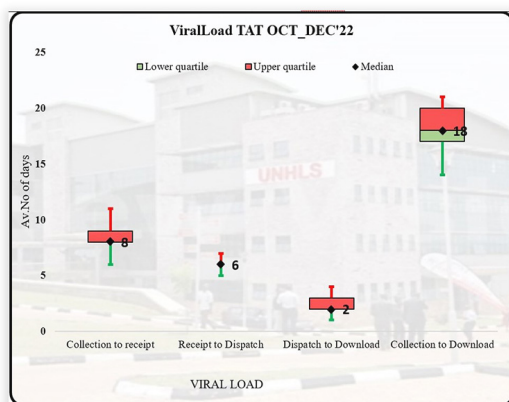
How the platform addresses the gaps at various loss points to complete the EID cascade



Flash SMS alert to caregivers and recipients of care

The system was piloted for HIV early infant diagnosis (EID) in 2017 and 2018 in 140 healthcare facilities, resulting in shorter turnaround times (TAT) to the return of test results and facilitating better patient care and management.

REPRESENTATION OF VL TAT AFTER THE ROLL OUT OF LabRDS



VL results TAT reduced from 5 days in the previous quarter to 2 days

LabCoP also supported a high-level consultation meeting in May 2022 for the rollout of EID and VL results dispatch using the LabRDS system, reporting an increase from 140 participating facilities

to 311 facilities. This number will continue to increase as the rollout continues. Participants in the meeting included the ministry of health's top leadership. This included The Director General of Health Services, The Commissioner, Maternal Neo Natal and Child Health (MNCH); The AIDS Control Program Manager; The Commissioner, Division of Health Information; The Commissioner, National Health Laboratory Services and Diagnostic (NHLS&D). Other participants included representatives from USAID, US CDC, Clinton Health Access Initiative, representatives from implementing partners of USAID and US CDC-funded projects like, seven directors of District Health Offices (DHOs), staff from the National Health Laboratory Services and Diagnostics, staff from the AIDS Control Program, staff from METS, and a team of programmers. Currently, there are over 398 trained system superusers attached to different regions in the country. Figure 1 below summarizes the progress made by the LabCoP Uganda country team.

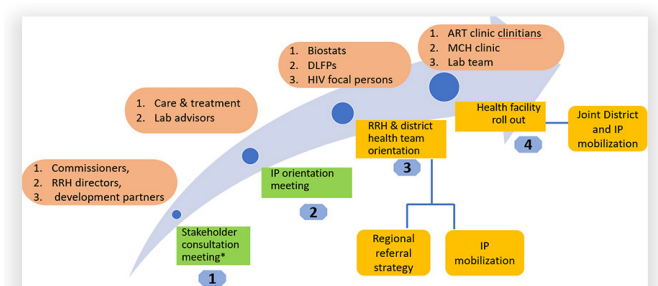


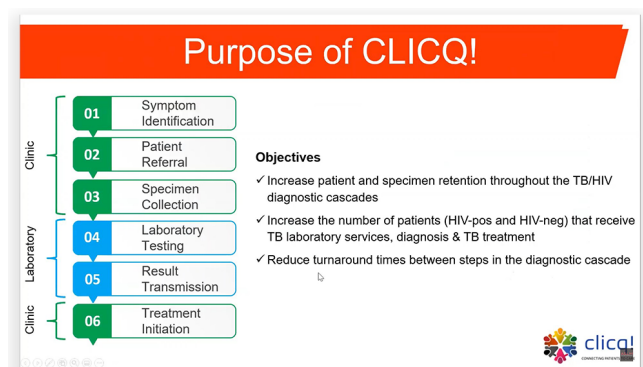
Figure 1: The progress in the rollout of electronic return of HIV VL results in Uganda. *Activities in green have been conducted and those in yellow are either ongoing or planned

ECHO Sessions Summary: September to December 2022

LabCoP ECHO sessions between September and December 2022 featured best practices at the clinic-laboratory interface to optimise the tuberculosis (TB)/HIV diagnostic cascade, optimise the diagnostic network in Gabon, and integrate hepatitis C testing on existing TB and HIV infrastructure in Nigeria. LabCoP also launched the Diagnostic Network Optimisation (DNO) sub-Community of Practice (sub-CoP) in collaboration with FIND and explored opportunities for funding DNO exercises in the next Global Fund Grant Cycle (GC7).

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The loss of patients to follow-up along the TB diagnostic cascade remains a critical gap in case detection and treatment.
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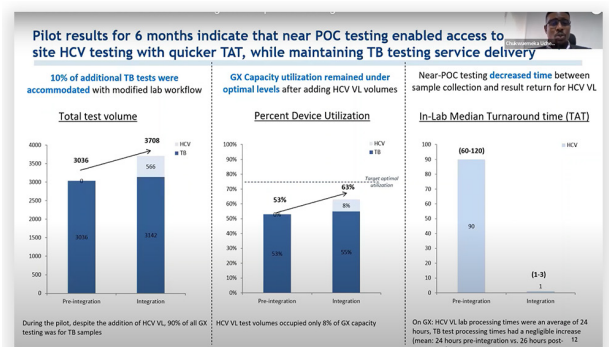
Tightening potential drop-offs along the testing cascade requires that clinics and laboratories interface to ensure service continuity from patient entry to a facility to specimen collection and transportation to the laboratory for testing and result reporting. Nigeria and Uganda have piloted CLICQ! (Cascade via Implementation of the Clinic-Laboratory Interface Continuous Quality Improvement), a mentorship-based programme that uses a diagnostic cascade evaluation (DiCE) toolkit to identify, quantify, and target gaps in TB. The September 2022 ECHO session highlighted how both pilot programmes demonstrated an increase in the total number of patients with presumptive TB, the number of TB treatment initiations, and the number of specimens collected and tested. In addition, CLICQ! improved the working relationship between the laboratory and clinical staff at facilities as they deliberately defined common goals. Watch the session [here](#).



Slide from Dr Jamie Dawson's (US CDC) presentation highlights the purpose and objective of CLICQ!

Nigeria has one of the largest viral hepatitis burdens in the world, with an estimated 2 million hepatitis C virus (HCV) cases and 16 million hepatitis B virus cases. As highlighted in the December 2022 ECHO session, some of the causes of the low detection of HCV cases include the high cost of HCV viral load (VL) tests (over \$140 per test in the private sector), limited access in some states,

and long turnaround times (TAT) to results return (an average of 90 days TAT from sample collection to results dispatch). Additionally, many HCV-seropositive patients may experience delayed initiation of treatment. Nasarawa State shows a classic example of addressing these challenges by leveraging HIV and TB laboratory infrastructure for HCV diagnostics. Pilot results for six months indicated that near-point-of-care (POC) testing enabled access to on-site HCV testing, resulting in quicker TATs (from an average of 90 days to 12 days) for the return of HCV VL results to patients while maintaining TB testing service delivery. The HCV-TB integration pilot successfully demonstrated the feasibility and positive impact of integrated testing on the GeneXpert. Nasarawa State has leveraged lessons learned from VL testing integration to build momentum towards HCV elimination. Watch the session [here](#).



Slide from Chukwuemeka Agwuocha's (CHAI) presentation shows near-POC testing decreased TAT while maintaining service delivery

In September 2022, LabCoP launched the DNO sub-CoP, a collaboration between ASLM and FIND, which aims to improve the uptake and quality of DNO processes in LabCoP-participating countries. The DNO sub-CoP is a growth point of the body of knowledge on DNO, and its application in various use cases. The sub-CoP also aims to promote the availability and quality of data, as well as capacity building and stakeholder coordination to conduct analyses, implement findings and sustain efforts. Watch the session [here](#).

The December 2022 DNO sub-CoP session covered the funding opportunity for DNO in the upcoming grant cycle 7 of the Global Fund. The Global Fund 2022 Modular Framework now includes DNO as an eligible intervention, and Patrick Royle, Project Manager at the Global Fund, shared tips for successful DNO funding requests. These include seeking early engagement with key stakeholders to align with the scope, objectives, and expected outputs of DNO analysis, prioritising key activities required to achieve DNO analysis, and identifying the necessary resources for supportive activities to maximise the benefits of DNO. Watch the session [here](#).

A South-South Technical Assistance Monitoring Visit to Strengthen South Sudan's Central Laboratory's Incineration Capacity

Following an [initial site visit in March 2022](#) that focused on the installation and commissioning of the high-capacity incinerator at South Sudan's National Public Health Laboratory, the ASLM and the ministries of health for South Sudan and Zambia recommended a second visit by the Zambian healthcare waste management team to consolidate this capacity.



A full inspection of the installed and commissioned high capacity incinerator

This second visit focused on evaluating the operation of the incinerator based on guidance initially provided by the visiting engineers and biomedical and environmental scientists. This visit comprised a multidisciplinary team of two biomedical engineers, two biomedical scientists, and an environmental scientist who supported South Sudan with:

- undertaking planned preventive maintenance, servicing, and repairs of the incinerator
- assessing progress with the implementation of recommendations from the first visit (construction of a ramp, expansion of the waste holding area, extension of the chimney, provision of waste handling and monitoring tools such as a waste register, and the use of appropriate personal protective equipment and waste weighing scales)
- conducting a refresher orientation on general waste handling and proper operation of the incinerator

Based on the performance assessment conducted during this visit, the team was able to:

- service, maintain, and repair the incinerator and auxiliary equipment
- provide additional orientation on the general operation and basic maintenance of the incinerator to the waste handlers and biomedical engineers, respectively

- conduct a second orientation of the National Waste Management Committee on key aspects of waste management and disposal through incineration developing this tool to cover all aspects of integration of laboratory services.
- hold meetings with the senior management teams at the ministry of health and partners supporting waste management to highlight key support areas that require their intervention



The engineers testing the high capacity incinerator

The current capacity of the South Sudan central incineration facility, located at the National Public Health Laboratory, is sufficient to handle all waste, including guanidinium thiocyanate (GTC)-containing waste from both GeneXpert and conventional PCR platforms for viral load and early infant diagnosis (EID) testing. To ensure that this capacity is not only maintained but effectively utilised, it is critical for country-level partners to provide ongoing support to the National Waste Management Committee responsible for guideline development and oversight, the Engineering team responsible for servicing and maintenance, and waste handlers responsible for daily operation.

Expert Experience



ASLM recently sat down with Dr Kingsley Odiabara, Director of the Medical Laboratory Services Division in Nigeria's Federal Ministry of Health, to discuss their [Global Fund \(GF\) application](#) experience. The GF is a worldwide international financing and partnership organization formed to defeat HIV, tuberculosis and malaria and ensure a healthier, safer, and more equitable future for all. Countries where the GF invests take the lead in determining where and how to fight the three diseases.

ASLM: What is the role and contribution of the GF in strengthening Nigeria's laboratory systems and diagnostic network?

Dr Odiabara: The GF has contributed significantly over the years towards laboratory systems strengthening in Nigeria through support provided through the Resilient and Sustainable Systems for Health (RSSH) grants. The RSSH II grant runs from April 2021 to December 2023 and provides resources in six key areas, including:

- **Leadership and Governance** through quarterly National Laboratory Technical Working Group (NLTWG), subcommittee meetings and a selected State Laboratory Technical Working Group to integrate and align donor funds and activities with implementation of the National Medical Laboratory Strategic Plan 2021-2025. The grant also supports the Federal Ministry of Health's Medical Laboratory Services Division to improve partner coordination and collaboration.
- **Laboratory Information System (LIS)** development, specifically software for a national electronic LIS.
- **Laboratory Quality Management Systems** improvements to ensure that the eight laboratories being supported towards accreditation make significant progress in preparedness and SLMTA rating.
- **Laboratory Infrastructure and Equipment** strengthening for public health laboratory facilities in Nigeria to improve and better coordinate the response to epidemics.
- **Biosafety and Biosecurity** training to improve the best-practice capacity of laboratory personnel in selected public health laboratories.
- **Laboratory Networks and Sample Referral Systems** to implement the National Integrated Sample Referral System.

ASLM: We understand the Nigerian Country Coordinating Mechanism (CCM) oversees the funding request. What mechanisms are available to you as a laboratory services director to ensure

that your needs reach the CCM? Are there focal persons or institutions you speak to?

Dr Odiabara: Quarterly RSSH Steering Committee meetings are convened by the ministry's Office of the Permanent Secretary and attended by all stakeholders, including representatives of the CCM. When there are matters to be brought to the CCM's attention, the ministry, through the NLTWG, send requests for meetings. Finally, a country dialogue, and grant prioritization and alignment workshops are always conducted by the CCM preparatory to the grant writing request.

ASLM: What kind of structured interactions have been set up and what typically takes place?

Dr Odiabara: There is no defined structure for engagement with the CCM. However, the national laboratory directorate do write and seek appointments with the CCM for necessary dialog involving implementation of laboratory interventions supported by the GF and other partners. Often, the NLTWG leadership are included. Communication lines to the CCM, the CCM executive secretary and other officers are widely open to the laboratory services director.

ASLM: During negotiations to prioritise funding, what strategies do you apply to ensure laboratory priorities are included in the funding requests?

Dr Odiabara: We ensure that the CCM, all disease programmes, donor agencies and key stakeholders are consulted during the development of the proposal for laboratory systems. This is achieved through country dialogue and stakeholder engagement to share the GF guidance on funding request priorities through the ministry's Department of Health Planning Research and Statistics and the CCM. In the current grant request, the Clinton Health Access Initiative played a key role in writing the country's health system assessment report, and the National Medical Laboratory

Laboratory Strategic Plan. Moreover, the proposal is shared with the CCM at all stages of development and review.

ASLM: How were LabCoP assessment results used to inform your funding request for the GF?

Dr Odiabara: In the next funding cycle, the GF mandated that all laboratory-based interventions in the AIDS, Tuberculosis and Malaria disease programme must be put in the RSSH envelope and that implementation must be driven by the national laboratory directorate. This speaks to the integration of laboratory-based programmes in the country. During the last LabCoP assessment, gaps were identified in areas such as sample transport, commodity supply chain, equipment maintenance, etc. Interventions for these gaps are included in the grant request in an integrated approach.

ASLM: Based on your experience, what advice would you share with other laboratory directors in making successful funding applications for the GF?

Dr Odiabara: I suggest they ensure their laboratory systems proposals are based on an approved national document in line with identified and documented gaps. Using this approach, the national laboratory system of any country can be set up for improvement and sustainable strengthening. Recognising national laboratory service directorates within ministries of health as the major driver of a country's laboratory services and building the requisite capacity of the directorate are keys to these achievements. The national laboratory directorate must clearly understand its mandate and the social environment, which will enable it to engage other stakeholders and achieve desired successes. We ensured that many of the programmes and activities of the laboratory component of the RSSH grants were driven and coordinated by the Medical Laboratory Services Division with guidance from the NLTWG. This laid the foundation for sustainability and ownership.

What's New

Welcoming the Botswana, Mozambique and Sao Tome Country Teams

The LabCoP Management team is pleased to announce that Botswana, Mozambique, and Sao Tome have joined the LabCoP family! They will perform their first self-assessment in the coming weeks. Please join us in welcoming Botswana, Mozambique, and Sao Tome to the LabCoP family. Bem-vindos, equipes Mozambique e Sao Tome!

New ISO 15189:2022 ECHO Session Series

LabCoP is hosting a special series dedicated to the revised and new ISO 15189:2022 standard that specifies requirements for quality and competence in medical laboratories. The first two sessions have concluded, and the next two will focus on more perspectives and guidance from the accrediting bodies, as well as the implications of the ISO 15189:2022 changes to the [Stepwise Laboratory Quality Improvement Process Towards Accreditation \(SLIPTA\)](#) and [Strengthening Laboratory Management Toward Accreditation \(SLMTA\)](#) programmes, which were designed to facilitate the implementation of ISO 15189. Sign up to receive email notifications [here](#).

Laboratory Directors Forum Chairpersons

ASLM has announced Dr Susan Nabadda, Executive Director, Central Public Health Laboratories Uganda, and Dr Charles Sawadogo, Director of Medical Laboratory Services, Ministry of Health, Burkina Faso, as the Interim Chairperson and Vice Chairperson, respectively, of the Laboratory Directors Forum (LabDF). The LabDF, created by ASLM in partnership with the Africa Centres for Disease Control and Prevention, provides a peer-to-peer environment to bring together African leaders in laboratory services from 55 African Union Member States. Learn more about the Laboratory Directors Forum [here](#).



Looking Ahead

ASLM2023

Save the date for ASLM's biennial conference as it returns to Cape Town, South Africa, 12-15 December 2023. ASLM2023 offers the opportunity to hear from world-renowned experts on infectious disease control and public health from Africa and across the globe. It is the perfect opportunity to showcase your research and network with other medical laboratory experts and public health leaders. Stay tuned for more info about abstracts and ASLM2023 registration.

New Recipes in LabCoP's Cookbook of Best Practices

The LabCoP Management Team is preparing two new recipes for inclusion in the [Cookbook of Best Practices](#), including Waste Management and Electronic Return of Results. Look out for the first of these in April 2023.



<https://aslm.org/what-we-do/labcop/>