LabCoP CONNECT

African Society for Laboratory Medicine
Volume 6, Issue 2

November 2023

Uganda South-to-South Learning Visit: 19-24 June 2023

In June 2023, the Zimbabwe LabCoP team visited the Uganda National Health Laboratory Services (UNHLS) to learn about the operations of a reference laboratory and see how different units are best coordinated in light of expansions in scope. The visit also aimed at prioritizing interventions to address gaps identified during the integration readiness assessment and the viral load cascade self-assessment conducted in late 2022. Some of the identified gaps included inadequate proficiency testing (PT) provision to laboratories. The team also looked into ways of expanding the sample transport system to cover all diseases and respond to outbreaks. The Zimbabwe LabCoP team was accompanied by representatives from the Zimbabwe National Microbiology Reference Laboratory (NMRL), the Directorate of Laboratory Services (DLS), and ASLM's Francis Ocen, the LabCoP Project Officer. Zimbabwe's NMRL and DLS were specifically seeking guidance on both stronger coordination of well-established, already-accredited quality management system (QMS) standards, as well as expansions to include a calibration unit and introduction of proficiency testing schemes.

Uganda made some general recommendations, including re-naming Zimbabwe's NMRL to reflect its expanded scope and revising the organization of the DLS to coordinate all sectors through the reference laboratories in order to strengthen the Directorate and enhance integration. The Uganda team also provided advice on integration of the National Integrated Sample and Results Transportation system and the laboratory information system at the Uganda National Reference Laboratory.

At the Uganda National TB Reference Laboratory, Kampala, Uganda

In addition, a number of specific recommendations were made in reference to ISO standards relevant to the goals of the Zimbabwe team. These included ISO 15189 for medical laboratories, ISO 17025 for testing and calibration, ISO 17043 for proficiency testing, and ISO 20387 for biobanking.

Based on their experience with their ISO-17025-accredited Equipment Calibration Laboratory,

the Uganda team recommended that the Zimbabwe NMRL first establish a calibration unit covering speed, mass, temperature and volume. Importantly, they also recommended that all processes should align to the ISO17025 standard from inception, so that the unit is accredited in the shortest possible time. Finally, they recommended that the Zimbabwe NMRL initially employ only medical laboratory scientists in the unit to conduct calibration services, while repairs and maintenance should be outsourced.

At the UNHLS National Genomics Laboratory, Kampala, Uganda

With regard to the ISO-17043 standard for proficiency testing, Uganda recommended that Zimbabwe expanding their current provision of PT panels for HIV, HIV viral load and early infantdiagnosis to cover the whole country as it is currently covering conventional sites and a few POC sites. In addition, Uganda recommended that the NMRL should its scope to cover hepatitis, serum Crag and human papillomavirus and conduct EQA performance review meetings after each PT cycle. To support these goals, Uganda will provide Zimbabwe with standard operating procedures for panel production.

The Zimbabwe team learned and appreciated many concepts during the visit, which will be implemented at the NMRL in a phased approach. Implementation of the various interventions will go a long way in ensuring sustainability in equipment calibration as well as PT provision within our facilities. They also acknowledged the support from ASLM's LabCoP and look forward to presenting an implementation plan to be monitored over time.

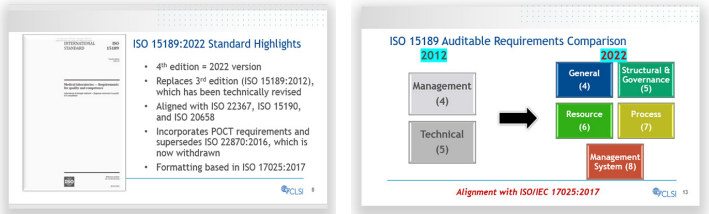
Uganda and Zimbabwe teams at the close of the south-to-south learning visit

ECHO Sessions Summary: January to August 2023

The African Society for Laboratory Medicine (ASLM), in collaboration with partners, continued its successful series of information, knowledge and experience-sharing ECHO sessions through its flagship Laboratory Systems Strengthening Community of Practice (LabCoP) project. Below is an overview of the key sessions conducted between January 2023 and August 2023.

The Revised ISO 15189:2022 Series

Following the release of ISO 15189:2022 in December 2022, two sessions were delivered to highlight key changes in the new version compared to the previous one. The webinars both explained the implications of these changes and offered guidance for national, facility-level and individual laboratories during the provided three-year transition period. Watch the ISO 15189:2022 ECHO sessions here.



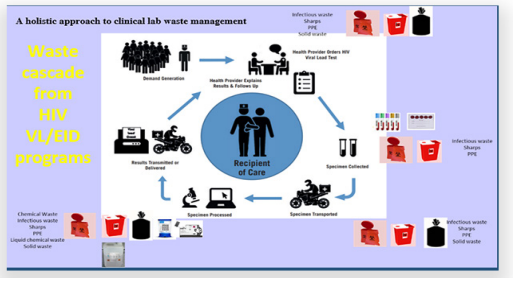
Melissa's presentation on ISO 15189:2022 Standard Overview from the January LabCoP ECHO session

Diagnostic Network Optimisation SubCoP

In collaboration with the Foundation for Innovative New Diagnostics (FIND), ASLM hosted the second Diagnostic Network Optimisation (DNO) Sub-Community of Practice (SubCoP) session in April 2023. The session focused on DNO analysis, drawing on experience from Zambia with integrating HIV and tuberculosis (TB) testing. It explored how findings from DNO analysis informed ministry of health strategies to enhance HIV and TB testing accessibility for vulnerable populations. Watch the DNO SubCoP ECHO sessions here.

Waste Management SubCoP

LabCoP's Waste Management Sub-Community of Practice conducted its second phase of ECHO sessions in a three-part series from February 2023 to July 2023. The first session concentrated on moving from awareness creation to action, including how to rally stakeholders to identify and implement safe, practical, and sustainable methods and technologies for healthcare waste disposal. The subsequent sessions, held in June and July, were the result of a collaboration with the United Kingdom's Health Security Agency and delved into fundamental principles, procedures, precautions and mitigation measures when handling chemical hazards. Additionally, these sessions covered introductory-level information on chemical detection, common surveillance methods for identification of potential public health concerns related to chemicals and the role of poison information centres in supporting detection and response to chemical events. Watch the Waste Management SubCoP ECHO sessions here.



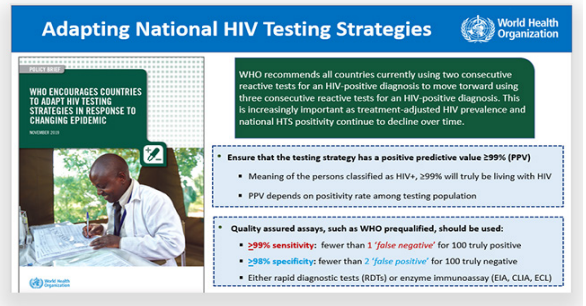
Lyda Izon presentation on detection and surveillance of chemical hazards from the July Waste Mgt ECHO session

The Diagnostic Resolution of the 76th World Health Assembly

In June 2023, a special session was convened to discuss the historic World Health Assembly resolution on strengthening diagnostics capacity. This ground-breaking resolution was initiated by Eswatini and co-sponsored by all World Health Organization (WHO) Regional Office for Africa member states, Indonesia, Bangladesh, Germany, France, Canada and others. The session outlined 15 diagnostics-strengthening steps for member states, as well as an additional 16 steps for the WHO Director General. Watch the special ECHO session here.

Tools, Global Guidelines, Standards and Country-Level Experiences

In May 2023, ASLM conducted five sessions covering critical tools for HIV and TB diagnostics, planning and budgeting, and testing algorithms. This included a session about the semi-automated tool developed by Global Laboratory Initiative and partners for estimating quantities and costs of diagnostic products and laboratory supplies. Watch the session here. Another session introduced the TB Diagnostic Network Assessment (TB-DNA) Tool, designed to assess the functionality and capacity of national TB diagnostic networks. Watch the session here. In February, LabCoP held a session on guidance for deploying rapid screening for malaria to low-transmission zones to accelerate malaria elimination. Watch the session here. In March, two guidelines and standards were presented, including the WHO-recommended three-test algorithm for improving quality of HIV diagnosis, which emphasises the need for three reactive tests to provide a positive HIV diagnosis. Watch the session here. Lastly, the August session introduced the WHO standards for universal access to rapid TB diagnostics and highlighted 12 benchmarks across four steps of the diagnostic cascade that countries should focus on to monitor and use the results to improve program performance. Watch the session here



Dr Cheryl's presentation on Adopting WHO Testing startegies for Improving the Quality of HIV Diagnosis from the February LabCoP ECHO session

Onboarding Botswana and Sao Tomé and Principe to LabCoP

Botswana and Sao Tomé and Principle are the latest countries to join the Laboratory Systems Strengthening Community of Practice (LabCoP). Their addition brings the total number of participating countries to 22.

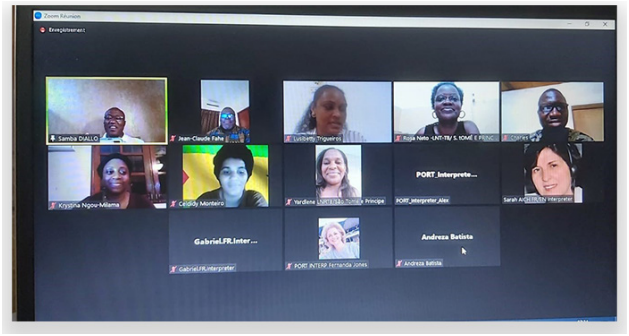
LabCoP Core Technical Team and the Botswana team in Gaborone

Botswana brings to LabCoP its experience as one of the first African countries to surpass the 2030 UNAIDS 95:95:95 goals on HIV. Led by Ms Thongbotho Mphoyakgosi, laboratory scientist at the National Health Laboratory, the Botswana team consists of laboratory heads from the national and regional HIV and tuberculosis (TB) reference laboratories and representatives of implementing partners including the United States Centers for Disease Control and Prevention, USAID, and others.

The LabCoP Core Technical Team, comprising Dr Collins Otieno, Project Lead, and Mr Francis Ocen, Project Officer, travelled to Gaborone in June 2023 to onboard the Botswana LabCoP team and facilitate a baseline assessment of their viral load (VL) testing cascade. The assessment aimed to identify strengths and weaknesses of the underlying laboratory system components. The results are being used to monitor degrees of improvement and/or continued challenges for these laboratory systems over time.

The meeting was graced by the attendance of Mr Mbulawa Mpaphi, Director of Laboratory Services, who highlighted the importance of sharing experiences to advance systems strengthening efforts. Moving forward, the Botswana team will expand their team membership to include other relevant stakeholders from the TB program and civil society in line with the expanded scope of LabCoP.

LabCoP also welcomed Sao Tomé and Principe, the first Portuguese-speaking country to become a member, in February 2023 with the signing of Terms of Reference with the country's Ministry of Health and the establishment of a multidisciplinary national team. This marked the country's official commitment to LabCoP, and on March 13, the Sao Tomé and Principe national LabCoP team held an online introductory meeting marking the second step in the LabCoP initiation process. The Sao Tomé and Principe team include key actors in the country's laboratory system, managers of its TB and HIV programmes, clinicians and civil society members (representing associations of people living with HIV). It is headed by Dr Rosa Maria Neto Rodrigues. The LabCoP Core Technical Team attending the meeting included Dr Samba Diallo, LabCoP Coordinator for Francophone Countries, Charles Ki-Zerbo, Project Officer, and Dr Krystina Mengue, Diagnostic Network Optimisation Project Manager, .



Team photo at the LabCoP introduction meeting for Sao Tomé and Principe

The aim of the meeting was to present the LabCoP project, its objectives, working methods and tools, communication channels and the laboratory system and network in place in Sao Tomé and Principe. This first meeting between the two parties enabled them to understand the organization of the laboratory system in the country, as well as its strengths and main challenges.

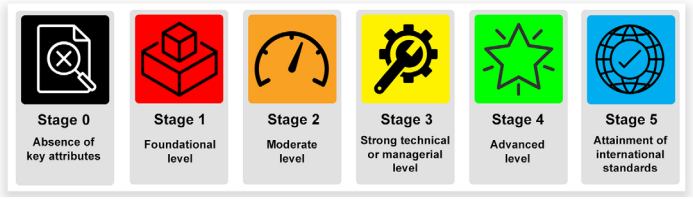
The next step will be to conduct a self-assessment, supported by a team of ASLM experts, using a structured tool that will cover the different areas of the laboratory system. The team will help to identify evidence-based gaps and propose a work plan to address challenges and strengthen the country's laboratory system.

Know Your Laboratory System!

Improving any system requires an understanding of how things function and being realistic about what is known and what is not before taking action. Since its launch in 2017, LabCoP has put assessment of laboratory systems and networks and evidence-based interventions at the core of its action.

Over the last six years, LabCoP has doubled from 11 to 22 countries, all provided with rigorous technical assistance to generate intelligence about their laboratory networks and systems. Between 2019 and 2022, LabCoP conducted 52 HIV viral load (VL) testing cascade assessments and four annual assessments in 11 countries, providing a unique overview of VL cascade improvements to achieve the third 95 of the UNAIDS 95-95-95 targets.

With support from Resolve to Saves Lives, four countries (Gabon, Burkina Faso, Cameroon and the Democratic Republic of Congo (DRC)) completed the ambitious LABNET score card assessment of the functionality of tiered laboratory networks across nine capabilities and against International Health Regulation and Universal Health Coverage targets. Each component of the scorecard receives a stage grading based on the capacity of each domain or component. This scoring method highlights the weaknesses and postulate that a single weak link compromises the functionality or capability of any system. Except for Gabon, three countries also conducted a follow-up LABNET assessment two years later. Notably, LABNET assessment data has been used to inform the laboratory component of DRC's national action plan for health security. In November 2022, the LabCoP management team, country stakeholders and implementing partners met with Mr Cleophas Malaba, DRC's Head of Health Laboratory Directorate, to discuss the LABNET assessment results that would inform joint planning of network improvements. Mozambique will undergo a LABNET assessment this October, with support from the Global Fund.



The five stages of functionality of components scored in the LABNET assessment

A complementary ASLM project, the Laboratory Mapping Program (LabMaP), provides countries with geographic information system (GIS) data on their laboratory systems to support evidence-based decision making, including diagnostic network optimization. LabMaP inventories laboratory locations, the range of diagnostic services and the populations covered. It also establishes sustainable in-country systems, ensuring access to the GIS data through local ministries of health. Eleven countries have or are collecting laboratory network GIS data as part of LabMaP.

Another important concept for laboratory systems is the integration of diagnostic services. This was at the core of the 2008 Maputo Declaration and recently prioritized again in the WHO AFRO Regional Strategy on Diagnostic and Laboratory Services and Systems (2023-2032).

The LabCoP Core Technical Team guides Botswana's first assessment

Integration is key to overcoming the siloed approach to laboratory networks and systems strengthening and to maximising efficiencies through sharing and optimal use of available resources. Seventeen countries have used the ASLM Integration Readiness Assessment Tool to determine whether their national systems were prepared to integrate diagnostic testing services from technology, human resource, data and programmatic perspectives. Preliminary data indicates that gaps still exist, notably related to insufficient workforce size, limited capacity for multitasking and fragmented data systems.

At the country level, results and recommendations derived from these assessments provide national stakeholders with crucial intelligence on laboratory networks and systems that can inform country strategies and/or funding requests. Accordingly, every year, LabCoP ensures technical assistance is provided to country teams, so assessment results are translated into prioritised activities in country action plans and strategies.

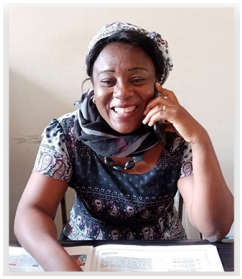
Internationally, ASLM's key partners from the United States Centers for Disease Control and Prevention, PEPAFR and the Global Fund look to LabCoP-generated intelligence to adjust their priorities and create more opportunities for rational investments at the country level. Thus, the availability of various complementary assessments provides a cross-cutting, 360-degree perspective on the status of national laboratory systems, needed improvements and clear benchmarks against which to measure progress.

By the end of November 2023, LabCoP management intends to hand over a consolidated formal report of all assessments to country teams, heads of HIV and tuberculosis programmes, and relevant government officials to democratise intelligence on laboratory systems and mobilise stakeholders at the highest operational and policy level. This approach will encourage national consultative processes to take stock of results and jointly identify and prioritise key interventions to drive improvement.

At the LabCoP satellite session at ASLM2023, these reports will be shared, so countries can learn how to better summarise country-level data to make the knowledge gained more actionable.

Measuring is knowing. What gets measured gets done!

Expert Experience



LabCoP recently sat down with Dr Rina Djubgang Djoukwe, Deputy Director of Laboratories and Blood Transfusion at the Ministry of Public Health of Cameroon, to talk to her about her illustrious career in laboratory medicine and experience leading the Cameroon LabCoP Team.

ASLM: Dr Rina, your background is as a pharmacist biologist with a degree in field epidemiology. What inspired you to embark on a career in laboratory medicine?

Dr Rina: It all started from childhood, during which I was regularly ill, which led me to frequent health centres. It was during my visits that I saw health workers looking for the cause of illnesses through microscopes; since then, I too wanted to be behind this camera. After my Baccalaureate diploma and when I arrived at the faculty of medicine of the University of the Mountains, my choice was already made,

ASLM: What is your role as the Lab Director in Cameroon?

Dr Rina: The sub-directorate of laboratories and blood transfusion that I direct is responsible for quite a bit. This includes developing legislative documents to govern laboratory activity and writing and implementing regulatory documents and standards for clinical biology and blood transfusion to ensure safety and compliance with best practices across these fields. We also update maps of clinical laboratories, coordinate the activity of all establishments that offer diagnostic services, particularly supply of reagents and medical devices. Finally, we also ensure awareness among professional organizations on standards and undertake efforts to promote blood donation.Mountains, my choice was already made, namely to seek to see the disease.

ASLM: What are some of the most critical gaps of the laboratory system in Cameroon, which you want to tackle as priorities?

Dr Rina: We have a lot of gaps, and are currently focus on several priorities. As I mentioned, we are developing regulatory and policy documents for clinical biology, blood transfusion and laboratories. We are revising the national laboratory strategy plan and Decree No. 176/1990, relating to the organisation and operation of clinical laboratory services, in order to unite stakeholder demands and find consensus. We are also establishing a national, integrated transport system for biosamples.

ASLM: How has LabCoP helped Cameroon achieve some of its goals since joining in 2020?

Dr Rina: LabCoP brought together actors from various structures linked to the laboratory system who formed a reflection committee on relevant topics. LabCoP made it possible to share individual experiences, so members can see how others have overcome the same difficulties. LabCoP also enabled us to set up a national External Quality Assessment system. During each visit, the LabCoP Core Technical Team involved my staff in their activities, which allowed them to understand the role of the laboratory. The laboratory is also consulted for advice on the acquisition of equipment and the supply of reagents. This visibility and approach has allowed us to be better understood and supported by the hierarchy.

ASLM: What advice would you give to other national LabCoP teams who may not be fully utilising the benefits of LabCoP?

Dr Rina: Find out about the activities and scope of LabCoP. From the moment that we understood the scope of what LabCoP could bring us, we became interested in LabCoP activities. Take more interest in LabCoP tools and documentation, which are available through its communication channels, website, WhatsApp and electronic messages, to better know LabCoP and benefit from it.

What's New

LabNetLead

ASLM, the Clinton Health Access Initiative, FIND, and other partners have developed the Laboratory Network Leadership (LabNetLead) course to introduce concepts and activities essential to adequately design, optimise, lead and manage functional, high-quality laboratory networks. The course focuses on human health laboratory network management and is designed to complement the WHO Global Laboratory Leadership Program in Africa. Learn more about LabNetLead on LabCoP's website.

LabCoP Cookbook of Best Practices

The latest recipe in the LabCoP Cookbook of Best Practices, 'Management of Guanidinium Thiocyanate Containing Waste from Testing Laboratories' is available on LabCoP's website. The recipe summarises best practices and solutions proven to work for managing guanidinium thiocyanate waste in low- and middle-income countries of Africa. The recipe is particularly important for any programme conducting molecular testing, such as HIV testing programmes. However, many of the best practices are also applicable to broader laboratory waste.

Looking Ahead

ASLM2023

ASLM's biennial conference 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. This year's theme is 'Shaping laboratory systems and diagnostics services for the 21st Century: embracing change'. Learn more and register at www.aslm2023.org.

LabCoP Meeting

This year's LabCoP meeting will be held in December at ASLM2023 in Cape Town, South Africa, as a hybrid session, with select representatives from each country team in attendance. All team members will be able to participate virtually via Zoom. LabCoP will facilitate two-day, in-country workshops for assessments and work plan development in preparation for the December meeting. Please await additional information in the coming months.

Decentralising Tuberculosis Testing Recipe

The LabCoP Management Team is preparing a new recipe for inclusion in the Cookbook of Best Practices about Decentrailsing Tuberculosis Testing. Look out for this critical recipe in November 2023.

ASLM
AFRICAN SOCIETY FOR LABORATORY MEDICINE

Lab CoP
ASLM

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