



Lab
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LabCoP Satellite Meeting

Strengthening Laboratory Systems and Networks: *Better Data for Better Action*

11 December 2023

INTRODUCTION

The African Society for Laboratory Medicine (ASLM) Laboratory Systems Strengthening Community of Practice (LabCoP) funded by the Bill & Melinda Gates Foundation (BMGF) since its launch in 2017, currently supports 22 countries in improving their laboratory services. Through a combination of webinars, moderated WhatsApp discussions, and other targeted interventions, LabCoP addresses challenges hindering the impact of diagnostic tests on health outcomes.

Countries' regular self-evaluations of their performance in various areas, including the viral load testing cascade, test integration readiness, etc., allow objective, evidence-based identification of gaps, prioritisation of interventions and monitoring of progress. Every year, the results of those evaluations feed into plans deliberately designed for both the United States Presidents Emergency Plan For AIDS Relief (PEPFAR) and the Global Fund grant applications and country level financing.

The intensity of the planning process and usual pressures to meet deadlines can hinder LabCoP members' full understanding and use of these assessments. This year's meeting, themed 'Strengthening Laboratory Systems and Networks: Better Data for Better Action', was held as a satellite session to the ASLM2023



Conference on 11 December 2023 in Cape Town, South Africa. The meeting provided LabCoP country teams with the opportunity to review the quality and breadth of data collected through the various assessments conducted since the inception of LabCoP and discuss the extent to which this data has been translated into actionable and timely intelligence to inform improvements in laboratory systems and diagnostics. At the meeting, many relevant topics were discussed, including ways to institutionalise the collection, analysis and utilisation of laboratory system and network data. The meeting also provided opportunities for PEPFAR, World Health Organization (WHO) and other stakeholders to discuss the use of data for continuous improvement of diagnostic services.

MEETING OBJECTIVES

The objectives of the meeting were:

1. To review country reports and discuss the significance of the results for national planning, funding requests, service delivery and policy guidance
2. To share technical, policy and funding updates on laboratory systems
3. To present the objectives and scope of LabCoP, Phase 3 (LabCoP 3)
4. To collect opinions on what works and what can be done differently



MEETING OUTCOMES

By the end of the meeting, the following were achieved:

1. Consolidated feedback on the relevance and utility of aggregated country assessment reports
2. Recommendations for improved LabCoP effectiveness in phase 3

MEETING OVERVIEW

The LabCoP satellite meeting was attended by 130 participants (84 physical attendees and 46 unique Zoom conference connections). Participants included global health experts, funding agencies, collaborating partners and country teams from 21 of the 22 LabCoP countries. All country teams were led by representatives from their Ministries of Health with additional participants coming from implementing partners supporting laboratory services delivery.

This one-day meeting had three sessions (**Annex 1**), including: 1) an opening plenary, 2) country experience sharing and 3) a structured group discussion on enhancing the power of evidence.

SESSION SUMMARIES and KEY TAKEAWAYS

Session 1:

Introduction and Opening Plenary

The introduction and opening plenary (**Session 1**) began with remarks from the ASLM's Chief Executive Officer, Nqobile Ndlovu; the BMGF's Senior Program Officer, Thandi Onami; and the Chief Executive Officer of South Africa's National Health Laboratory Services, Kamy Chetty. Following the opening remarks, brief presentations were made by Pascale Ondo from ASLM (*Meeting Objectives and Expected Outcomes*), Joris Vandelanotte from Bixal Solutions (*Evaluating the Impact of LabCoP_2*), Robert Luo from WHO (*WHO Viral Suppression Policy Brief*), Solange Baptiste from ITPC (*Community Led Monitoring in the Laboratory Context*) and George Alemnji from PEPFAR (*Aligning the PEPFAR Laboratory Implementation Strategy to the Next Generation Diagnosis in Africa*).



ASLM CEO, Nqobile Ndlovu, welcomes delegates to the LabCoP meeting.

Key Takeaways

- >> Routine assessments provide a good source of data, and country teams should take advantage of and effectively use all available data to better manage laboratory systems and networks.
- >> Inter-country learning activities within the framework of South-to-South collaboration and in-country workshops (self-assessments, work plan integration) are highly appreciated by and critically beneficial to countries.
- >> The value of LabCoP is evident in its continuous growth, with membership now reaching 22 countries, including the recent addition of Botswana, Sao Tomé and Mozambique, which joined in 2023.
- >> Multiple country teams working together galvanises efforts not only towards improving laboratory diagnostic services but also for our global pandemic response efforts to ultimately change the face of pandemics.
- >> Viral suppression remains a key global, public health and individual client goal, and clear messaging and understanding of 'undetectable', 'suppressed' and 'unsuppressed' viral loads is important for recipients of care.
- >> Addressing network optimisation challenges and diagnostic integration require engagement with affected communities that goes beyond 'business as usual' and requires the deliberate and meaningful involvement of communities in determining the scope, monitoring and appraising of services provided to them.



Taking Stock of Three Years of Measuring our Progress in Strengthening Laboratory Systems and Scaling up Diagnostics

Session 2 focused on 1) introducing the consolidated LabCoP country assessment reports, 2) country-level experience sharing in strengthening systems and advancing diagnostics over the last twelve months. Topics included: enhancing timely access to laboratory results, processes and systems to understand the laboratory network through geographic information system (GIS) mapping and measuring volumes and cost of guanidinium thiocyanate waste

Key Takeaways

Consolidated country assessment reports

- >> Overall, 59 viral load testing cascade self-assessments, 17 integration-readiness assessments, 10 LabMaP and five LabNet assessments have been conducted between 2017 and 2022 across 19 countries.
- >> The ASLM LabCoP consolidated assessment report is a unique source of information that informs interventions to strengthen laboratory systems and advance diagnostics.

Uganda's Laboratory Results Dispatch System (LabRDS)

- >> The Uganda team shared the implementation process for their innovative LabRDS, which improved turn-around times by three-fold.
- >> LabRDS is a phone-based system, using short messaging service (SMS) and unstructured supplementary service data (USSD) codes, that is interoperable with the laboratory information management system; it improves timely access and utilisation of laboratory results.
- >> In Ugandan facilities employing the system, the time from test completion to result access has decreased to an average of one day, compared to the three-day average in facilities not utilising the system.

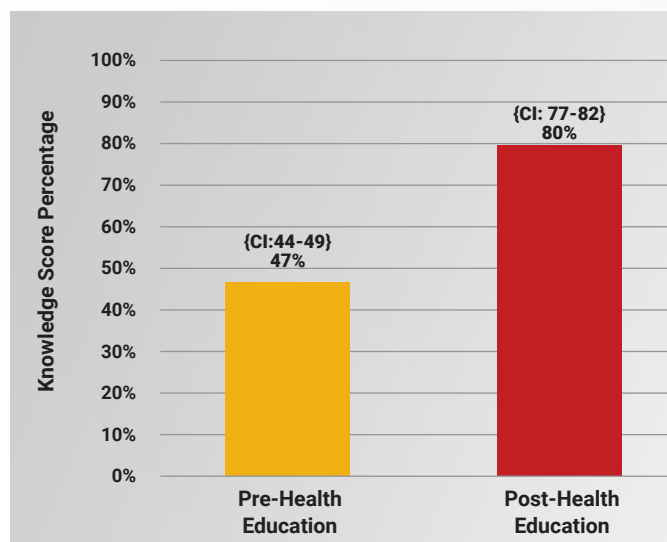
South Africa's digital health system, eLABS

- >> A pilot study of South Africa's eLABS digital health system demonstrated that such systems can improve patient literacy on HIV viral load testing and adherence to medication.
- >> The original system was designed to utilise mobile information communication technology to track specimens, monitor turn-around times and deliver results electronically to facilities.
- >> A patient support module was added to the system to provide guidance messages on appointments, health education, sample handling, test results and next steps for clients once results become available.

Figure 2. Improvements in literacy levels after pilot of patient support module in South Africa.



Figure 1. Covers of the LabCoP Country Reports in two languages.



Laboratory network mapping: Zimbabwe Experience

- >> Laboratory mapping data can be used to identify and address gaps in infrastructure, quality management systems, biosafety and biosecurity and diagnostic network optimisation.
- >> To perform an efficient and sustainable mapping, each country team needs to define the scope, secure funding, and develop initial capacity prior to embarking on a mapping exercise.

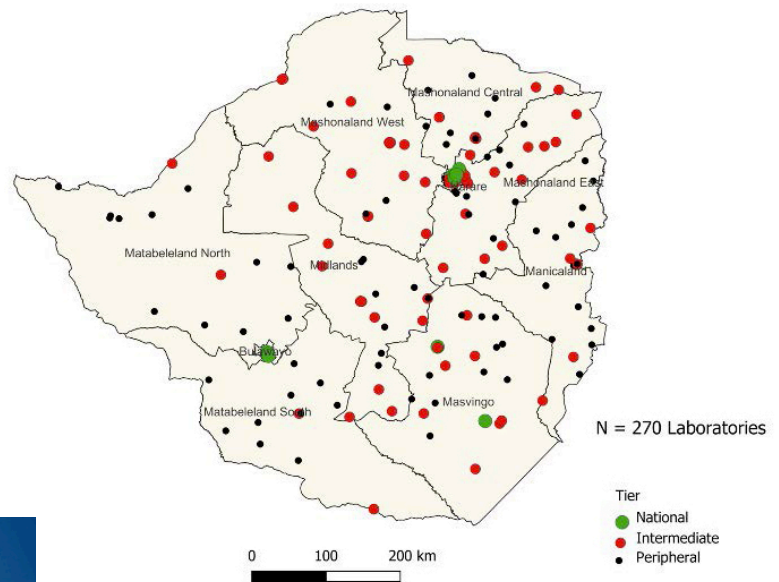


Figure 3. Distribution of laboratories in Zimbabwe

Benefits of Lab Mapping

- It helps in identifying the strengths and weaknesses of the diagnostic system.
- It shows the distribution of laboratories across the country.
- It improves the functionality of national and regional laboratory networks by mutualizing existing resources.
- Helps increase diagnostic testing capacity and surveillance coverage of laboratory networks
- Assists in preparing for and respond to disease outbreaks.

Kenya's experience with the waste cost analysis framework for HIV reference laboratories

- >> The Kenyan team shared their experience in using the waste cost analysis framework to estimate the volume and cost of guanidinium thiocyanate waste at seven of their 12 HIV reference laboratories.
- >> Scaling up use of the tool required: 1) a phased approach starting from laboratories followed by point-of-care sites, 2) better coordination through formation of a technical working group sub-committee, 3) updating the waste management guidelines to include quantification of waste volumes, 4) leveraging trained staff at national laboratories to support point-of-care sites and, 5) regular scheduling of assessments.

Session 3:

Enhancing the Power of Evidence in LabCoP

During this session, participating countries were organised into three groups, each comprising seven to eight nations. The groups engaged in discussions addressing four key questions (1-4 below), subsequently providing feedback in a plenary setting. The questions covered a spectrum of topics, ranging from how countries have applied the knowledge and evidence generated through LabCoP to the preparedness of country teams in collecting, interpreting and utilising such information. The session also explored the identification of the most useful and easily actionable information for initiatives like scaling up diagnostics and enhancing service delivery. Additionally, participants deliberated on potential avenues for providing further valuable intelligence within the LabCoP framework. This collaborative approach aimed to gather insights and foster a comprehensive understanding of how LabCoP's resources and knowledge are being harnessed across diverse country contexts.



Breakout Session Group Responses

1. How have countries used the knowledge and evidence generated through LabCoP?

- >> Country teams acquire knowledge and implementation options through the LabCoP structured routine assessments, exchange visits and virtual experience sharing.
- >> All groups indicated that the knowledge and evidence generated through LabCoP activities are useful in supporting identification of areas of weaknesses within their programmes and developing strategies to address them.
- >> Currently, multiple countries are at different stages of implementing strategies to address faster return of results, improving waste management and general performance of the laboratory network based on some of the learnings from this community of practice.
- >> Additionally, the knowledge and evidence generated through the engagement of members help to guide prioritisation of resources and their subsequent efficient utilisation.

2. Are country teams well equipped to continue collecting, interpreting and using the knowledge and evidence generated through LabCoP?

- >> All groups reported availability of differential capacities among countries to collect, analyse and utilise data using some of the prioritised tools.
- >> Lack of capacity was more prevalent among countries that recently joined the community.
- >> Consideration for targeted support to countries with gaps in the use of assessment and analysis tools is underway and shall be provided by either the project team or peer countries with demonstrated capacity in specific work streams.

3. Which information is the most useful and easiest to use for actions in the scale-up of diagnostics and improvement of service delivery?

- >> The country assessment report and information on their laboratory network helps in optimising general programme performance, testing capacity and sample transportation systems.
- >> Lessons learnt from peer countries during webinars and South-to-South learning visits provide practical approaches to adoption and implementation.

4. What other useful intelligence could be provided to countries within the scope of LabCoP?

- >> Not a lot of information on supply chain and point-of-care viral load testing is currently collected using available assessment tools. A revision of the current tools to include these two critical elements would help provide an objective assessment of performance in these critical areas too.
- >> Provide up-to-date information on global emerging diagnostic initiatives and support alignment of member states.



Figure 4. Breakout Session Group 2, which included country teams from Zimbabwe, Malawi, Sierra Leone, South Sudan, Eswatini, Botswana and Mozambique.



CLOSING PLENARY

Pascale Ondo from ASLM provided a way forward by introducing LabCoP 3 (2024-2026) goals and objectives. She noted that the great work of both country and project teams working with collaborating partners formed a strong basis for LabCoP 3. LabCoP 3 builds on the work done over the last six years with the overall goal of expanding the scope and reach of the programme to address critical laboratory system gaps to accelerate uptake, optimal access and use of innovative HIV and tuberculosis diagnostics to improve patients' outcomes. The expected outcome of LabCoP 3 is a demonstrated increase in access to and use of HIV viral load testing, WHO-recommended rapid tuberculosis diagnostics and other priority essential diagnostics for improved patients' outcome in 75% of participating countries.

In his closing, Collins Otieno from ASLM informed the meeting that the next LabCoP annual meeting will be held in Abidjan, Côte d'Ivoire, in November 2024.

Thandi Onami from BMGF and Kami Chetty from the NHLS jointly appreciated the participation of partners and country teams for their great work in enabling the creation of knowledge, an in synthesising and sharing it. Additionally, they appreciated the organising team and sponsors for putting the meeting together and recognised the huge value that the resources being put into LabCoP is generating for diagnostic networks in Africa and beyond.



Dr Thandi Onami thanks LabCoP country teams for their hard work.

WAY FORWARD

- >> Expand the country teams to deliberately include tuberculosis programme members, update tools, make data more actionable, expand the oversight committee to include tuberculosis experts, delegate some workstreams to countries and partners.
- >> Complete 2024 work plans using most recent assessments and the consolidated report. Work plans to include broader laboratory system and network issues beyond HIV based on additional assessments.



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





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Annex 1: Satellite Meeting Agenda

LabCoP Satellite Meeting

**Strengthening Laboratory Systems and Networks:
Better Data for Better Action**

11 December 2023

08:00-17:00 Central Africa Time (CAT)

AGENDA

TIME	SESSION	FACILITATOR/PRESENTERS
Session 1: Introduction and Opening Plenary		Francis Ocen (ASLM)
08:00 – 08:30	Registration	ASLM
08:30 – 08:45	Opening remarks	Nqobile Ndlovu (ASLM) Thandi Onami (BMGF) Kamy Chetty (NHLS)
08:45 – 09:00	Meeting objectives and expected outcomes	Pascale Ondoa (ASLM)
09:00 – 09:15	The ASLM LabCoP: 2022-2023 achievements	Collins Otieno (ASLM)
09:15 – 09:35	Evaluating the impact of LabCoP	Joris Vandelanotte (Bixal Solutions)
09:35 – 09:45	Q&A	
09:45 – 10:05	WHO viral suppression policy brief: data and implementation considerations	Robert Luo (WHO)
10:05 – 10:30	Community-led monitoring in the laboratory context	Solange Baptiste (ITPC)
10:30 – 11:00	Group photo and tea break	
11:00 – 11:20	Aligning the PEPFAR Laboratory Implementation Strategy to the Next Generation Diagnosis in Africa	George Alemnji (PEPFAR)
11:20 – 11:35	General discussion	
Session 2: Taking stock of three years of measuring our progress in laboratory systems and scaling up diagnostics		Collins Otieno (ASLM)
11:35 – 11:50	Introducing the consolidated LabCoP report: A unique source of data for strengthening laboratory systems and advancing diagnostics	Collins Otieno (ASLM) Felix Humwa (ASLM) Samba Diallo (ASLM) Tapson Nyondo (ASLM)



TIME	SESSION	FACILITATOR/PRESENTERS
11:50 – 12:30	<p>Strengthening systems and advancing diagnostics in the last 12 months: Country experiences</p> <ul style="list-style-type: none"> Enhancing timely access to laboratory results: Implementation and impact of a patient centred SMS system in remote Ugandan healthcare facilities SMS return of results to patients: example from South Africa Process and systems to understand the laboratory network through GIS mapping: What do we need? (Zimbabwe) Measuring volumes of GTC waste in Kenya: What do we need to scale up? 	<p>Miriam Nabukenya (Uganda MoH)</p> <p>Veronica Mkuyamba (NHLS, Wits DIH, SA)</p> <p>Agnes Juru (Zimbabwe MoH)</p> <p>Nancy Bowen (Kenya MoH)</p>
12:30 – 12:40	Q&A	
12:40 – 12:50	Introducing LabCoP goals and objectives for 2024–2026	Pascale Ondo (ASLM)
12:50 – 13:00	Energizer/Testimony	Moses Supercharger
13:00 – 14:00	Lunch Break	
Session 3: Enhancing the power of evidence in LabCoP		
14:00 – 14:15	Introduction to breakout session	Francis Ocen (ASLM)
14:15 – 15:30	<p>Group Work</p> <ol style="list-style-type: none"> How have countries used the knowledge and evidence generated through LabCoP? Are country teams well equipped to continue collecting, interpreting and using the knowledge and evidence in generated through LabCoP? Which information is the most useful and easiest to use for action (scale-up of diagnostics and improvement of service delivery)? What other useful intelligence could be provided to countries within the scope of LabCoP? <ul style="list-style-type: none"> Group 1: DRC, Burkina Faso, Gabon, Cameroon, Cote d'Ivoire, Burundi, Sao Tome, Congo Group 2: Zimbabwe, Malawi, Sierra Leone, South Sudan, Eswatini, Botswana, Mozambique Group 3: Nigeria, Tanzania, Ethiopia, Uganda, Kenya, South Africa, Zambia 	<ul style="list-style-type: none"> Group 1: TBD Group 2: TBD Group 3: TBD
15:30 – 16:00	Break	
16:00 – 16:45	Groups report back Session (15 mins/group)	Anafi Mataka (ASLM)
16:45 – 16:50	Wrapping up and way forward	Pascale Ondo & Collins Otieno (ASLM)
16:50 – 17:00	Closing	NHLS/ASLM/BMGF

ASLM and our partners thank the Bill & Melinda Gates Foundation for their generous support of LabCoP

