

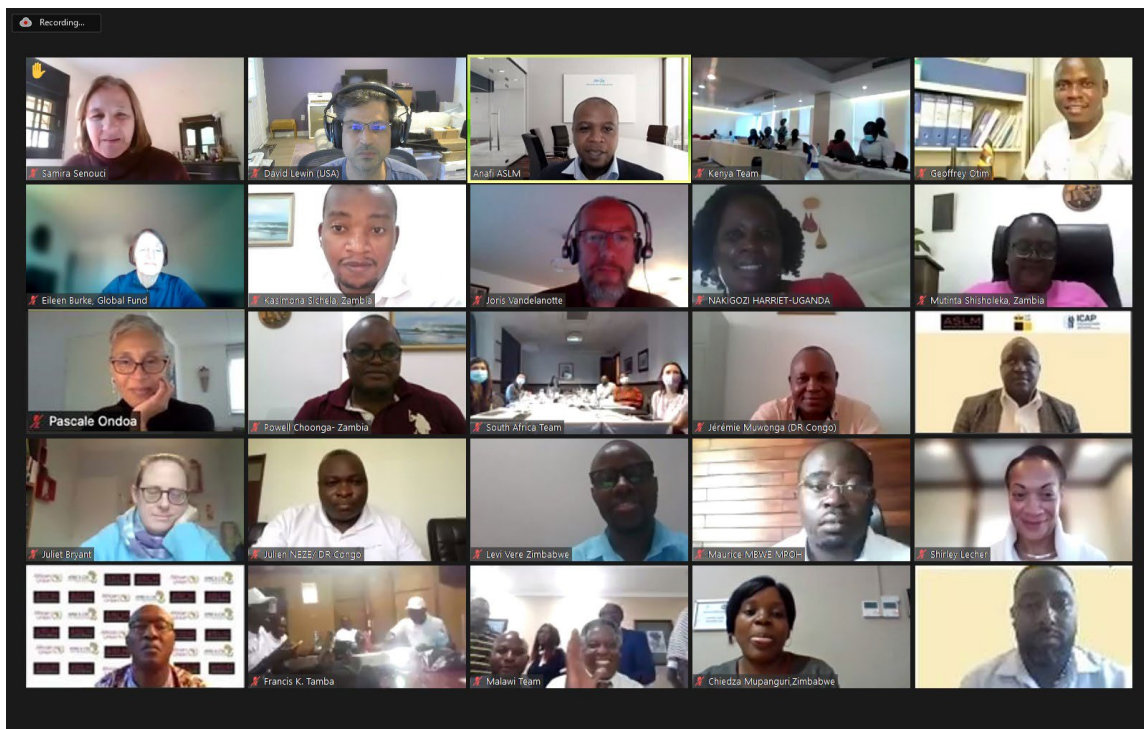


LabCoP FIFTH ANNUAL MEETING

Strengthening Laboratory Systems, Viral Load and Other Essential Testing in the Era of COVID-19

MEETING REPORT

1-2 December 2021



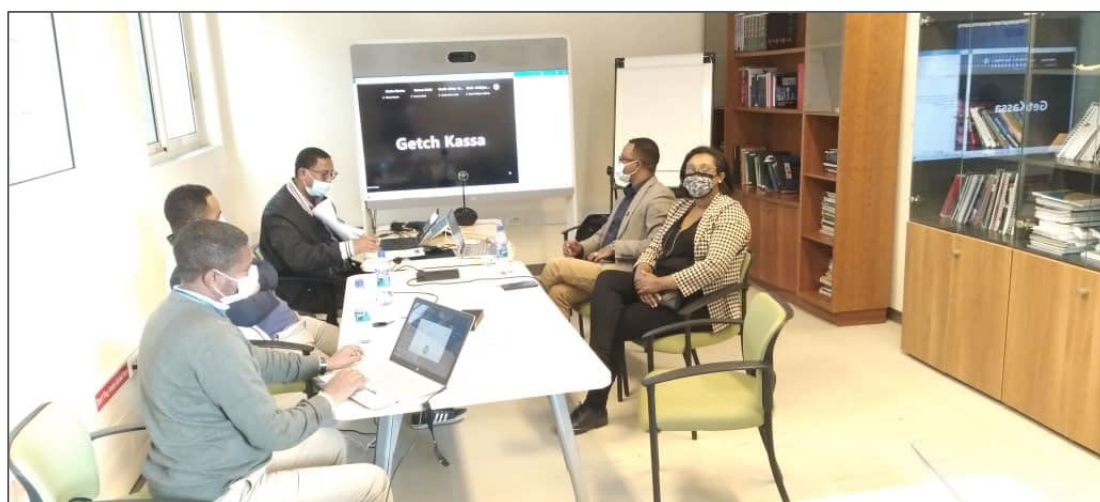
I. Background

The Laboratory Systems Strengthening Community of Practice (LabCoP) is implemented by the African Society for Laboratory Medicine (ASLM), with funding from the Bill & Melinda Gates Foundation (BMGF). The LabCoP is a multidisciplinary team consisting of laboratorians, laboratory managers, clinicians, ministries of health, civil society, and other stakeholders and is currently implemented in 16 countries Burundi, Burkina Faso, Cameroon, Democratic Republic of Congo, Ethiopia, Eswatini, Kenya, Malawi, Nigeria, Sierra Leone, South Africa, South Sudan, Tanzania, Uganda, Zambia, and Zimbabwe.

The program promotes knowledge exchange and joint learning by linking enrolled country teams from across Africa with each other and with global experts. The LabCoP initially focused on HIV viral load (VL) testing scale-up but has since expanded to other disease areas such as tuberculosis (TB), Coronavirus disease 2019 (COVID-19), etc.

The annual meeting is a key LabCoP program activity that brings together country teams, funding agencies, and other stakeholders to review the current year's implementation progress and existing gaps and refine the coming year's work plan priorities.

The LabCoP's fifth annual meeting, which was convened from Wednesday 1 December to Thursday 2 December 2021, employed a hybrid method. All 16 country teams congregated in-person in their respective countries but joined other teams and stakeholders via a virtual Zoom link.



The Ethiopia LabCoP country team joined the LabCoP Fifth Annual Meeting via Zoom from Addis Ababa.



II. Meeting Goals and Objectives

The main goals of the annual meeting were to: assess the progress of country-level LabCoP action plans and the outcome of ongoing interventions; discuss laboratory systems strengthening across diseases through reviewing challenges and best practices in maintaining routine VL, Early infant HIV diagnosis (EID) and TB testing during the COVID-19 pandemic; and introduce upcoming LabCoP themes to address the laboratory system at large.

The specific objectives of the meeting were to:

- Review and evaluate each country's progress towards implementing VL systems strengthening action plans and achieving viral load testing (VLT) services scale-up using data from the 2021 structured self-assessment (new countries shared baseline data)
- Assess proposed actions plans and link them to the Country Operational Plan for 2022 (COP 22) and the Global Fund (GF) grant cycles
- Review and assess progress in VLT demand generation campaigns supported by ASLM in collaboration with the International Treatment Preparedness Coalition (ITPC)
- Discuss other laboratory system issues (beyond HIV), including how the COVID-19 pandemic has accelerated the need to integrate testing across disease areas and new interventions to strengthen the laboratory network (e.g., introducing the integration assessment tool, the monitoring and evaluation (M&E) sub-community of practice, and the laboratory network management course)

III. Expected Outcomes

The expected outcomes of the meeting included having:

- An updated dashboard of aggregated and individual country progress data on VL scale-up across the seven domains of the VLT cascade self-assessment tool
- Clear action plans to address identified gaps linked to COP 21 priorities
- A plan for new recipes aimed at strengthening the management of laboratory networks
- A general meeting report detailing all communications and deliberations of the meeting

IV. Meeting Overview



The fifth annual LabCoP meeting was hosted via Zoom, and participants included global experts, funders, collaborating partners, and country teams from the 16 LabCoP countries. Country teams convened a face-to-face meeting before the annual meeting to complete their VL self-assessment, review implementation progress, identify priority activities for their next implementation period, and prepare for sharing during the annual meeting. All country teams were led by their respective ministries of health, with additional participants consisting of implementing partners and civil society organisations. There were 222 unique Zoom connections on Day 1 and 169 unique Zoom connections on Day 2.

The meeting had six sessions (Annex A), including plenary sessions for presentations from ASLM, collaborating partners, and funding agencies. Select countries also shared their implementation experience over the last 12 months. Also, both meeting days had breakout sessions, during which countries were split into four groups of four countries each to share achievements, successes, and challenges from 2021 (Day 1) and determine the priorities for the upcoming implementation period (Day 2).

A summary of each session and key takeaways follows below. Additionally, all meeting materials and presentation files are accessible via the [shared conference folder](#), and a detailed agenda is annexed (Annex A).

V. Session Summaries and Key Takeaways

Session I: Introduction and Opening Plenary

The opening plenary (Session I) began with a remark by the ASLM CEO, Nqobile Ndlovu. Following the remark were brief presentations from Pascale Ondo, ASLM Director of Science and New Initiatives, (*Conference objective and expected outcomes*), Collins Otieno, LabCoP Project Lead, (*The ASLM LabCoP: 2020-2021 achievements and update*), Robert Luo, WHO, (*New guidelines to monitor ART*), and Donewell Bangure, Africa CDC, (*Laboratory systems strengthening priorities for Africa*).



Nqobile Ndlovu, CEO of ASLM, opened the Fifth Annual LabCoP Meeting.

Key Takeaways from Session I:



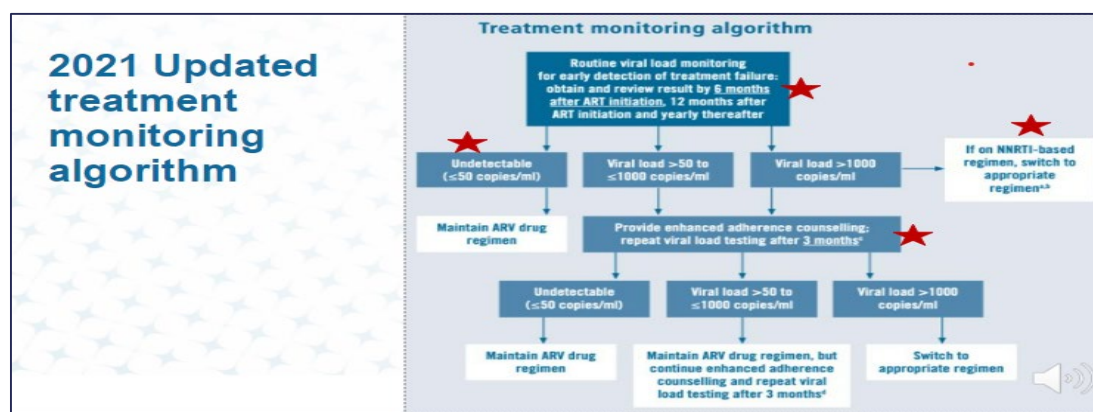
- In stating the meeting's objectives and progress to date, Dr Ondoa and Dr Otieno shared the LabCoP's evolution since its inception in 2017: growing from 11 to 16 countries and expanding its focus from HIV VL to other diseases, including tuberculosis and COVID-19, amongst others. Dr Ondoa further stated that the LabCoP now focuses on strengthening the overall laboratory system, and some countries are using the ASLM's laboratory network (LabNet) scorecard to assess their overall laboratory network performance.
- The ASLM CEO, Mr Nqobile Ndlovu, emphasised that the LabCoP country teams are at the forefront of creating solutions from promising ideas to scalable best practices, including the now widely implemented sample referral network and electronic result requisition and return.
- Dr Otieno shared that assessments and evidence-based prioritisation of interventions have been at the heart of the LabCoP's theory of change. He stated that LabCoP's annual assessments have revealed key priorities, including creating VL demand, strengthening M&E to document VL result utilisation, and strengthening VL waste management. And that other new priorities include: optimising networks to improve test-to-result turn-around time (TAT); improving access to COVID-19 and other essential tests; and strengthening leadership and network management. Dr Otieno affirmed that the LabCoP is responding to these priorities by facilitating focused sharing and learning among countries as with the planned roll-out of the laboratory network leadership and management course (LabNetLead). The LabCoP's response also includes implementing interventions, such as organising VL campaigns (in collaboration with ITPC) and forming sub-communities of practice for waste management (in collaboration with the United States Centre for Disease Control International Laboratory Branch (US CDC-ILB) and M&E (in collaboration with the World Health Organisation (WHO) and US CDC, etc.).
- Dr Otieno emphasised that the LabCoP's country visits aim to evaluate country programs and activity uptake while allowing inter-program engagements. Seven countries were visited and supported in 2021: Burkina Faso, Burundi, Eswatini, Nigeria, Sierra Leone, South Sudan, and Tanzania. The visitation teams supported the countries to conduct VL self-assessments and review their progress with implementing work plans, laboratory systems strengthening advocacy with partners and funding agencies, meetings with other disease program teams to explore possible areas for integration, and possible best practices for sharing were discussed.
- He itemised the 2020 LabCoP priorities to include: conducting a LabNetLead pilot in 2 countries; setting up a diagnostic network optimisation (DNO)/Integration Community of Practice in collaboration with the Foundation for Innovative New Diagnostics (FIND); completing and piloting the Integration Readiness Assessment tool; and developing recipes for



the LabCoP Cookbook to guide the implementation of best practices. He affirmed that ASLM would support country teams to expand their work to include other relevant disease programs (e.g., TB program) and hold review meetings to discuss progress with developing and improving the country's dashboard.

- Dr Robert Luo shared updates on the WHO's revised guidelines for monitoring persons living with HIV on antiretroviral treatment (ART) in 2021, highlighting changes to the HIV Treatment Algorithm. He stated that these updates have specific implications on the current capabilities of VL diagnostic technologies. For example, the updated guideline advocates identifying more patients with low-level viremia (less than 50 cp/ml) and those at risk for potential treatment failure and or drug resistance. However, not all viral load technologies perform well at low VL levels especially using alternative sample types such as dried blood spots (DBS). In addition, the clinical relevance of low-level viremia in the context of newer dolutegravir (DTG) regimens is unclear, increasing the complexity of implementing the new algorithm. Figure 1 highlights key areas updated in WHO guidelines.

Figure 1: Key areas updated in the 2021 WHO HIV treatment monitoring algorithm



- Donewell Bangure highlighted Africa CDC's support for strengthening laboratory networks on the continent. The Africa CDC has three focal areas: leadership and coordination, developing comprehensive national laboratory policies, plans and procedures, and supporting advanced laboratory capabilities. Mapping laboratory capabilities and systems help leadership to improve coordination and planning of human resources, equipment, and quality management. Comprehensive laboratory strategic plans and quality management systems must be developed and implemented at all levels.
- He affirmed that the Africa CDC is committed to supporting advanced laboratory capabilities to enable real-time detection of emerging and re-emerging diseases and other priorities, including



laboratory infrastructure improvement, workforce development, and local manufacture of diagnostics.

Session 2: Measuring Our Progress in Scaling Up VL and Strengthening Laboratory Systems

In Session 2, results from the 2021 HIV VL cascade self-assessment scorecard and the other assessment tools were shared, including a comparative analysis of findings across countries, tools, and domains. Afterwards, Tanzania and the Democratic Republic of the Congo made their presentation. Tanzania illustrated how improving the M&E system for VL testing benefitted other essential tests such as COVID-19 and tuberculosis testing. At the same time, the Democratic Republic of Congo discussed the utility and benefits of triangulating results of multiple assessment tools, namely the VL self-assessment tool, WHO VL/EID tool, and the LabNet scorecard. The team used the [VL self-assessment tool](#) to identify critical gaps in their laboratory systems and assess the status of the different thematic areas of the VL cascade and their testing services to identify areas of improvement. The WHO VL/EID tool assesses the level of VL and EID implementation by countries and guides the WHO and its partners on how to provide technical assistance. The LabNet scorecard assesses a country's national laboratory network functionality to support the implementation of the International Health Regulations 2005 and to reach the Global Health Security Agenda targets of preventing, detecting and responding to infectious disease threats

Key takeaways from Session 2:

- Based upon the results of the LabCoP HIV VL cascade self-assessment, LabNet scorecard and WHO-AFRO HIV/EID assessment tools, key areas that continue to require focus and improvement include sample transportation; HIV VL testing; waste management; supply chain management; and equipment maintenance (Figure 2).
- The negative impact of the COVID-19 on the supply chain was significant in 2021. Most countries attributed stock-outs to the COVID-19 pandemic, which led to global supply chain systems disruption.

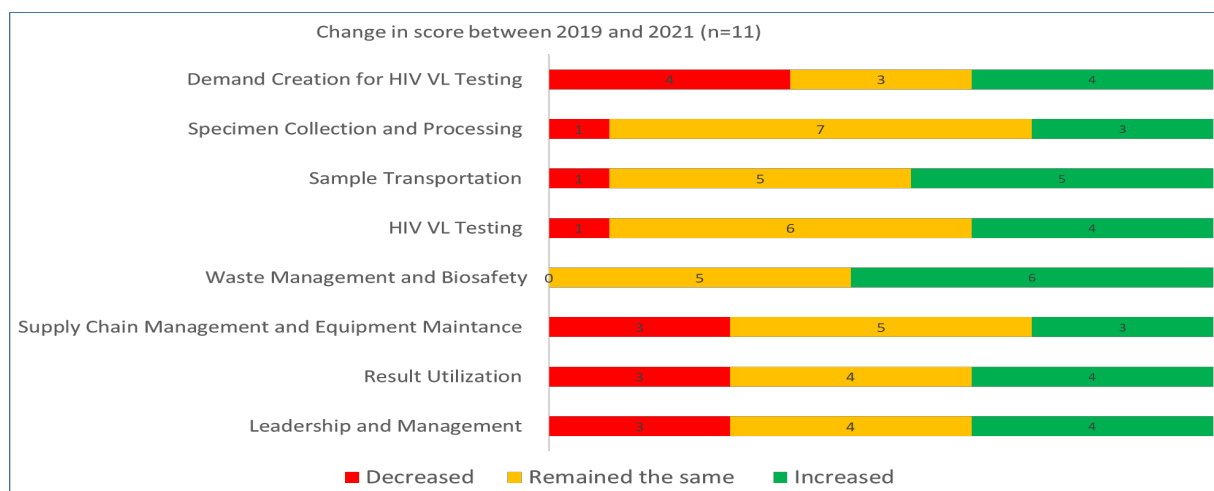


Figure 2: HIV VL cascade self-assessment scores by domain and country, 2021

Domain	Burkina Faso	Burundi	Cameroon	Congo (DRC)	Eswatini	Ethiopia	Kenya	Malawi	Nigeria	Sierra Leone	South Africa	South Sudan	Tanzania	Uganda	Zambia	Zimbabwe	Sum
Demand Creation for HIV VL Testing	2	2	1	3	3	3	3	3	4	1	4	3	4	2	3	3	44
Specimen Collection and Processing	1	1	1	3	3	3	4	3	4	1	4	3	3	3	3	3	43
Sample Transportation	1	1	1	2	3	3	2	2	2	1	4	2	3	3	3	3	36
HIV VL Testing	1	1	2	2	2	3	4	3	2	1	4	2	2	4	3	3	39
Waste Management and Biosafety	3	1	2	2	3	2	2	2	1	2	4	2	2	4	3	4	39
Supply Chain Management and Equipment Maintenance	2	1	2	3	3	3	2	2	2	1	3	1	3	3	2	2	35
Result Utilization	1	1	2	3	3	3	3	3	3	1	3	3	3	3	3	3	41
Leadership and Management	3	3	1	4	4	3	4	3	4	1	4	3	4	3	4	4	52

- All three tools corroborated that waste management, biosafety, and sample transportation are areas requiring significant improvements.

Figure 3: Performance score for key domains between 2019 and 2021



- There was an improvement in data availability for tracking the VL cascade at the national level to inform decisions on testing capacity and viral load test access. For example, the number of countries that reported having data on clients referred to less intense models of care increased from two to six countries, and the number of countries with data available for most indicators for the 2nd cascade increased from two to five countries.



Figure 4: Data availability at the national level to track VL testing capacity and VL cascades, by country, 2021

Country	Burkina Faso	Burundi	Cameroon	Congo (DRC)	Eswatini	Ethiopia	Kenya	Malawi	Nigeria	Sierra Leone	South Africa	South Sudan	Tanzania	Uganda	Zambia	Zimbabwe
Indicators	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021
# of VL testing Labs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of VL testing Machines	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Testing capacity	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# VL tests done	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
List of companies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estimated # of PLHIV Tx_Curr	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# on 1st line	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# eligible VL test	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
# received VL test	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Virally Suppressed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# on less intense model of HIV care	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	No
# Not suppressed received EAC	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No	Yes
# Not suppressed h ada follow-up VL test	No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes
# re-suppressed	No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes
# Switched	No	No	Yes	No	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes

- Tanzania provided an example of how improving M&E systems for VL can benefit other essential tests, including the standardised use of patient identifiers across programs. From initial challenges with national-level data availability in 2016, due to several factors ranging from non-uniform use of client identifiers to interoperability of multiple Laboratory Information Systems (LIS) limiting communication between the different systems, the country in 2017 moved towards a standardised client identification system with the capability to identify individual clients by facility, district, and the region as well as upgrading different LIS to be able to communicate with clinic databases and relay data to the central data repository. This move has enabled better visualisation of the lab-clinic interface through a VL/EID dashboard of program data that includes test volume, TAT, specimen rejection rates, and suppression rates disaggregated by age and sex. Other countries can adopt or adapt this Tanzanian experience depending on their data handling systems needs.
- Experience from the Democratic Republic of Congo (DRC) demonstrates the added value of triangulating results from three assessment tools (HIV VL, WHO AFRO VL & EID Tool, and LabNet Scorecard). The country leveraged the complementarity of the tools to identify gaps at the national and facility level and validate intervention priorities to improve service quality at the facility level and the laboratory system at the national level. For example, weaknesses identified at the national level, such as personnel training, procurement, and limiting guidelines, often impact service delivery at the facility level. Similarly, weaknesses identified at the facility level, including poor documentation and long TAT for results, may negatively impact data availability for evidence-based decision-making at the national level.



Session 3: Parallel Breakout Session I

During Session 3, the 16 LabCoP countries were grouped into four groups of four countries each. Each country shared their achievements, successes, and challenges from the last work plan (COP 20 and 21) in their respective breakout groups, followed by group discussions. A representative from each group presented a summary of key successes, challenges, and ways forward in the plenary. The summary of challenges, successes and proposed way forward are shown below (Table I).

Table I: Summary of report back from break out session one on implementation successes, challenges and ways forward

Successes	Challenges	Way Forward
Funds available for most activities	Supply chain challenges given COVID-19 restrictions that affected global commodity movement	Explore options for effective implementation and management of health commodities, including sourcing commodities from alternative suppliers from less limiting regions and adjusting commodity order cycles to provide for anticipated longer “lead times.”
Adoption of point-of-care (PoC) test integration for TB, HIV and Covid-19 to improve access and reduce TAT	Limited availability of waste management guidelines and policies that guides general Lab waste management	Develop waste management policies and guidelines
Improved waste management through procurement of incinerators	Challenges with available LIS, including non-maintenance of some systems, outdate of the licence, and lack of alternative power sources	Develop sustainable approaches in handling LIS, including staff capacity development to support inhouse maintenance of LIS
Effective implementation of demand creation activities through multiple platforms to raise awareness on service availability and benefits	Availability of multiple partners supporting different segments of the care cascade with weak national systems to coordinate them	Strengthen leadership and governance functions of the national health system and laboratory network



<p>Increased national testing capacity due to new high throughput multifunctional equipment</p>	<p>Some parts of some countries are uncovered by the national sample referral and result transport network</p>	<p>Expand current national sample referral network and integrate sample transportation to cover all essential tests</p>
<p>Have multidisciplinary teams that aid quick redress of challenges faced during care provision, including long TAT, poor sample quality/handling practices, and incomplete documentation</p>	<p>Inappropriate equipment management, including lack of service contracts or effective alternatives to support routine servicing and maintenance</p>	<p>Secure stable service contracts or alternative maintenance approaches</p>

Session 4: Update on Best Practices

Session 4 began with a synthesised summary of topics covered in 2021 through LabCoP Webinar/ECHO Sessions and the standout best practices. Other topics covered in the session included successful country interventions, waste management solutions for guanidinium thiocyanate (GTC), and community initiatives to address gaps in accessing diagnostic tests.

Key takeaways from Session 4:

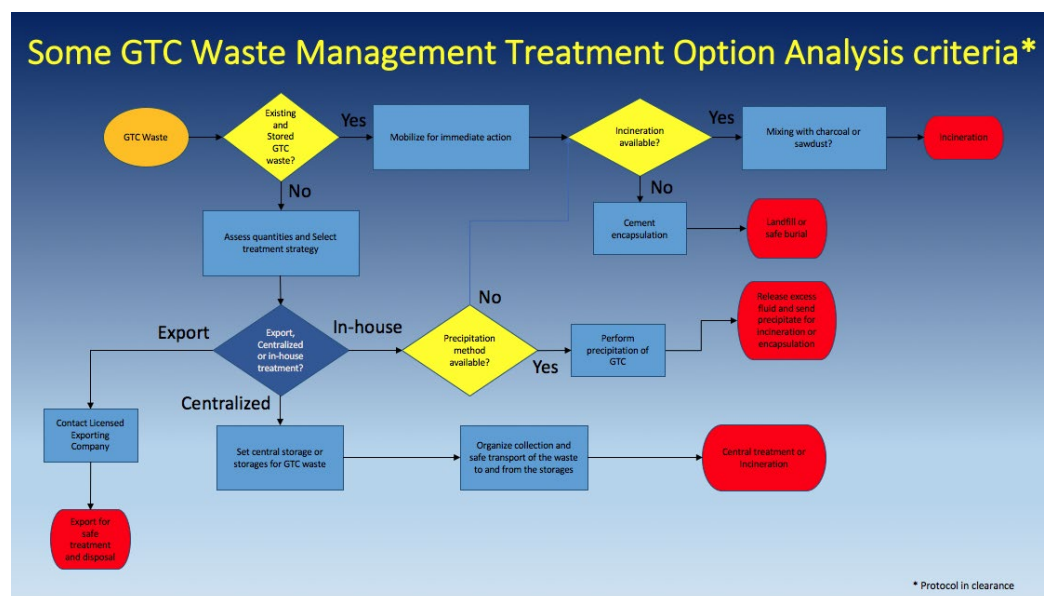
- During this session on solutions and good ideas from ECHO sessions in 2021, Mr. Anafi Mataka noted the many best practices shared through LabCoP over the past year. He emphasised that because contexts vary, sharing a practice, its evolution and intended aim expedites adoption and adaption by others. He recalled that during the year, the monthly LabCoP, COVID-19 or the special session series covered practices on diagnostic access, quality management system, diagnostic network optimisation with test integration, demand creation, result utilisation, M&E, and waste management. And additionally, these session materials and recordings are available for ongoing reference on the ASLM online resource centre.
- South Africa piloted electronic return of results and shared updates on its implementation progress and key scale-up considerations. In South Africa, multiple platforms handle electronic requisition, sample tracking, critical results and other alert notifications, and return results through eLab, SLS printers, Lab Track, and telephone delivery. Piloting has informed their scale-



up considerations, with eLab being the dominant platform in use and not requiring internet connectivity. However, they reiterated that while technologies for electronic result return shows promise, success is also dependent on buy-in by users, particularly health workers and recipients of care. Therefore, a management change to promote the adoption of new technologies is key and should be ongoing.

Waste management solution for guanidinium thiocyanate (GTC): Increased molecular testing (for HIV and COVID-19) inevitably increases waste volumes that require management to reduce potential associated risks. Several practical, effective and sustainable treatment and disposal methods were suggested to deal with liquid chemical waste and other medical waste. However, there is still a gap in options analysis to select the appropriate waste mitigation strategies for implementation, scale-up, and monitoring and evaluation. Developing national policy templates for adoption by countries and supporting countries to build capacity to select, implement, and scale-up waste management strategies are all areas requiring immediate attention. Also, adopting appropriate country options should be informed by multiple waste management options analysis to include country-level management of GTC containing waste.

Figure 5: GTC waste management treatment option analysis criteria



- Communities can help address gaps in service delivery. Sustained and tailored community-friendly communication and **community-led campaigns to raise awareness and create demand** for routine viral load testing in countries are effective and achievable. ITPC worked with six LabCoP countries - DRC, Kenya, Malawi, Sierra Leone, South Sudan, and Zimbabwe - on community-led campaigns between 2020 and 2021. Results achieved include optimal VL access and suppression. However, sufficient time is needed to communicate and reinforce

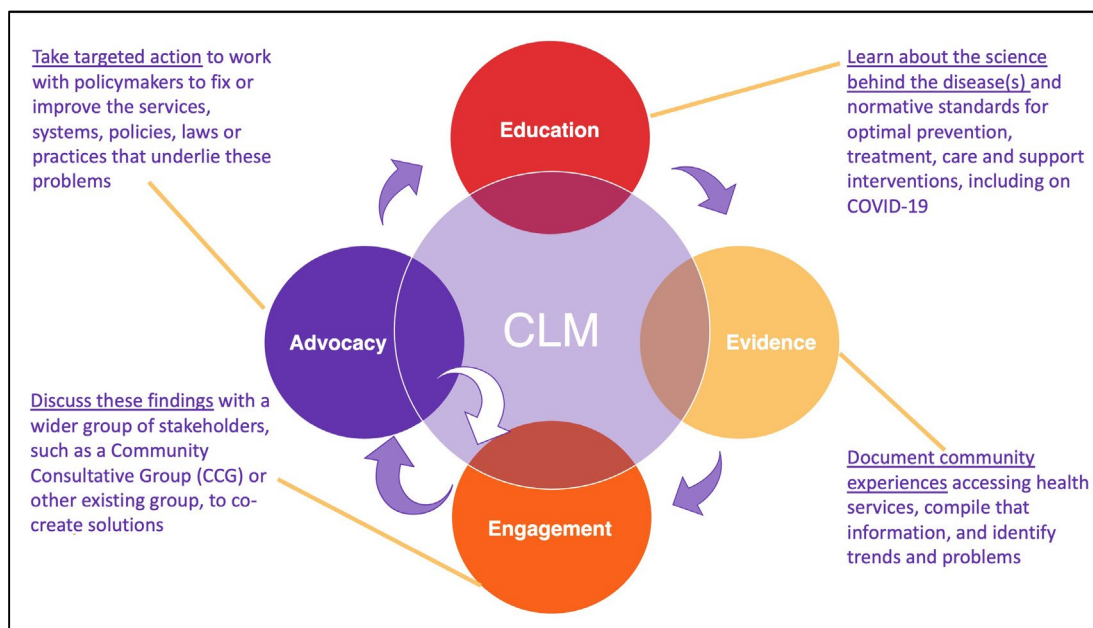


messaging. Effective use of digital social media platforms to complement non-digital platforms can help improve the reach of campaigns.

- Creating demand for VL testing is only one part of the solution. Addressing system issues that affect testing, including commodity availability, human resource capacity, and equipment capacity and functionality, is vital to ensuring that the anticipated test demand increase is adequately matched with high volume testing capacity. Understanding the nature and extent of systemic barriers is especially critical for identifying solutions and improving the viral load cascade. **HIV community-led monitoring (CLM)** and advocacy help improve efficient and effective service delivery by approaching improvement from the lens of the recipient of care than by terms set by donors or existing funding. CLM enables communities to take the lead in monitoring issues that matter most to them. However, VL and other essential diagnostics are not routinely (or comprehensively) covered in the CLM that is being rolled out and supported through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and Global Fund grants. The chart below depicts a model used by ITPC to support a structured CLM that allows for an informed and productive engagement between the community monitoring team and those charged with the responsibility of providing specific services (duty bearers).



Figure 6: Illustration of community-led monitoring process using the ITPC Model



Session 5: Funding Opportunities and Priorities

Session 5 focused on funding priorities of key global health donors, including PEPFAR and the Global Fund, and the presenters were Dr George Alemnji (PEPFAR) and Juliet Bryant (The Global Fund). Dr George Alemnji (PEPFAR) noted the pertinence of countries identifying and seeking additional funding sources, including domestic financing, for VL scale-up and laboratory systems strengthening activities.

Key takeaways from Session 5:

- The PEPFAR Country/Regional Operational Plan (COP/ROP) 22 process is ongoing. Inputs from all stakeholders have been received and are under consideration. The final COP/ROP 22 guideline will be published in early 2022.
- Current PEPFAR laboratory policy changes provide funds to support multiple testing on a single platform, improve diagnostics, and mitigate the impact of COVID-19 on HIV, TB and other tests.
- The Global Fund investment priority now encourages maximising a people-centred integrated health system for impact, resilience, and sustainability. Global Fund funds are available for various interventions to support national laboratory governance and management structures; infrastructure and equipment management systems; laboratory information management systems; integrated specimen transport networks; quality management systems; and waste management.



- The global fund laboratory systems strengthening priorities for 2022 will also include promoting good governance through the Global Laboratory Leadership Programs (GLLP) program and supporting the formation of functional lab technical working groups (LTWG); the accreditation of National Reference Laboratories; and data management. This information should guide countries in preparing a better proposal and include funding streams that support critical systems components that improve the effectiveness and responsiveness of laboratory networks.

Session 6: Parallel Breakout Session II

In Session Six, the 16 LabCoP countries were again split into the same groups as on Day 1. Each country presented priority gaps based on the country level VL self-assessment and interventions planned for 2022, followed by a group discussion. A summary of common approaches was presented in the plenary by a representative from each breakout group. Table 2 summarises priority interventions identified by Group 2 (Malawi, Zambia, Zimbabwe, and Uganda).

The key observation in this session was that most country teams require additional support to develop fundable work plans and need capacity building and technical assistance to improve their work plans significantly. Additionally, there were noticeable gaps in linking country capacity lapses with its underlying causes and specific activities.

Table 2: Common Priority interventions for 2022 from countries

Domain	Most Common Country Gaps	Proposed interventions
1 Waste Management and Biosafety	Inappropriate handling of GTC containing waste as a result of non-availability of specific policies/guidelines to support liquid chemical waste management	Develop/review legal, regulatory and policy framework and disseminate to address GTC and other chemical waste management across all sectors
	No systems in place to quantify and cost waste generated from molecular and other diagnostic spaces	Develop (adopt) and implement a waste cost analysis framework
2 Supply Chain Management	Stock-outs primarily due to delayed order placement or approvals	Review supply chain management and guidelines across different pipelines to cater for new and evolving implementation environment
		Order quantities that allow for longer months of stock and develop a structured redistribution plan from facilities with to those without commodities
3 Result Utilisation	Non-availability of national LIMS with adequate coverage and system	Scale-up available LIMS to improve national coverage, modify



		for prompt results notification and EAC visualisation	functionality to support client notification and EAC visualisation
4	Management of Viral Load/EID Testing	Non-regular servicing and maintenance of VL test equipment to ensure consistent function	Procure service and maintenance contracts for available platforms to ensure their non-interrupted use
		Ageing test platforms that breakdown quite often	Procure/rent new HIV VL/EID testing platforms to support continued testing
5	Demand Creation	Systematic test demand creation activities not consistently implemented	Plan for and implement demand creation activities to improve service access and benefits appreciation

Closing Plenary

In the closing plenary, country teams were recognised for their contributions and participation in LabCoP during 2021, including:

1. High participation (based on connections to ECHO sessions)
2. Presenting or sharing during ECHO sessions
3. Reporting data availability at the national level for most indicators

Countries recognised for the highest participation in ECHO sessions were Ethiopia, Kenya, Nigeria, South Africa, and Uganda. Countries recognised for sharing the most during ECHO sessions, satellite sessions, and the 2021 annual meeting were Burkina Faso, Eswatini, Kenya, Nigeria, South Africa, South Sudan, Tanzania, and Uganda. Lastly, countries recognised for reporting data at the national level for most indicators of the VL cascade were Ethiopia, Malawi, Tanzania, Zimbabwe, and Zambia.

In closing, representatives from ASLM and partners (ITPC, PEPFAR, GF, WHO, International Center for AIDS Care and Treatment Programs (ICAP), Africa CDC, BMGF) reiterated the value of LabCoP and the collective achievements of the LabCoP community in scaling up VL testing as well as strengthening laboratory systems and diagnostic networks in Africa. The LabCoP has built a strong foundation, plans to advance this work, and looks forward to a fruitful 2022.

VII. Recommendations and Next Steps

The meeting participants identified several next steps to build and expand the expected outputs. These include:

1. Countries, with support from ASLM, will complete their 2022 work plans based on groupwork outputs and identified areas of prioritisation linked to funding opportunities. **Some countries will need considerable technical input in formulating logical frameworks for**



- developing fundable work plans.** The ASLM LabCoP team will reach out to partners to enhance technical support and build country teams' capacity to prepare a compelling proposal.
2. The ASLM LabCoP team and LabCoP country teams will work together to facilitate the inclusion of identified interventions in the country PEPFAR COP and GF application documents. Also, the ASLM LabCoP will further strengthen the relevance of the assessment results and selection of interventions for the GF proposals. ASLM LabCoP team will focus mainly on developing country capacity to create evidence-based work plans (through more targeted assessments) and the quality of proposals that employ proven interventions.
 3. LabCoP will continue expanding its scope by implementing cross-cutting initiatives to address gaps that will strengthen the overall laboratory network for project-supported countries, including piloting the LabNetLead course and convening the DNO sub-community practice in collaboration with FIND. The team will revive the waste management sub-community of practice, given the continued need for solutions in this area. In support of improving test result utilisation, the LabCoP will support innovations in returning results to patients as part of the M&E sub-community of practice's scope.
 4. The industry, in particular, manufacturers, are an important stakeholder in laboratory networks and systems strengthening. Therefore, LabCoP will further engage the industry and facilitate the discussion on improving access to diagnostics (including integration network optimisation and regulation) at a dedicated satellite session of the upcoming annual LabCoP meeting in October 2022.
 5. Breakout sessions and the follow-on plenary discussions will continue to be an important part of the annual meeting. In the next annual meeting in October 2022, we will restructure the breakout sessions in terms of time and method of delivery to allow teams to have sufficient time for experience-sharing. While we hope to have a larger traditional face to face meeting in October 2022, there will be a live feed of the proceedings for other participants globally to connect and actively participate virtually. The LabCoP will also facilitate in-country pre-meeting workshops to develop work plans to encourage more participation of in-country stakeholders.
 6. Outcomes of the LabCoP's mid-term evaluation will inform future programmes to ensure better service to its members and strengthen laboratory systems.

Meeting Evaluation Feedback

The meeting was highly appreciated by all participants who provided feedback. All participants rated the meeting seven and above for achieving its objectives (scale of 1-10 where 1 was the lowest). In



addition, the majority of the participants prefer that future LabCoP annual meetings be a face-to-face engagement (64%).

Acknowledgements

Special thanks to all the country teams and global stakeholders who devoted their efforts to the meeting preparations and attended the meeting. We also acknowledge ASLM's HIV Awareness Ambassador, Moses 'Supercharger' Nsubuga for producing [LabCoP's 2022 theme song](#). This meeting and activities of the LabCoP are funded and supported by the Bill & Melinda Gates Foundation.

Appendix A: Meeting Agenda

AGENDA

Day 1 - Wednesday 1 December 2021

TIME	SESSION	FACILITATOR/PRESENTERS
Session 1 Introduction and Opening Plenary		Anafi Mataka (ASLM)
14.00 - 14.05	Opening remarks	Thandi Onami (BMGF) Nqobile Ndlovu (ASLM)
14.05 - 14.10	Conference objectives and expected outcomes	Pascale Ondoa (ASLM)
14.10 - 14.20	The ASLM LabCoP: 2020-2021 achievements and updates	Collins Otieno (ASLM)
14.20 - 14.30	Group activity/poll	ALL
14.30 - 14.45	New guidelines to monitor ART	Robert Luo (WHO)
14:45 - 15.00	Laboratory systems strengthening priorities for Africa	Donewell Bangure (Africa CDC)
15.00 - 15.05	Break	
15.05 - 15.20	Question and answer session and meeting photos	ALL
Session 2 Measuring our progress in scaling up VL and strengthening laboratory systems		Shirley Lecher (CDC)
15.20 - 15.35	Reviewing progress, strengths and weaknesses of laboratory systems <i>With a focus on the (1) LabCoP VL cascade (2) WHO VL & EID and (3) LabNet scorecards assessment exercises</i>	Michael Maina (ASLM)



TIME	SESSION	FACILITATOR/PRESENTERS
15.35 - 15.55	Country highlights <ol style="list-style-type: none"> Tanzania – How improving the M&E system for VL can benefit other essential testing (highlights on COVID-19 and tuberculosis testing) DRC – The power of synergy: enhancing the utility of the VL self-assessment tool triangulating results of the WHO EID tool and the LabNet scorecard 	<p>Denis Mzaga (MoH, Tanzania)</p> <p>Jérémie Muwonga (MoH, DRC)</p>
15.55 - 16.10	Discussion: Turning the priorities identified into funded interventions. Can we do better? <ul style="list-style-type: none"> Country experiences Challenges Opportunities 	Anafi Mataka
Session 3 Parallel Breakout Session I		
16.10 - 17.10	<p>Aim: To share achievements, successes, and challenges from the last work plan (COP 20 and 21), summarising from preparatory country workshops</p> <p>Key questions for discussion:</p> <ul style="list-style-type: none"> Were the country work plans submitted, funded, implemented and effective? What do country teams plan to do differently this year? <p>Breakout groups:</p> <ul style="list-style-type: none"> Group 1: DRC, Burkina Faso, Burundi and Cameroon Group 2: Zambia, Zimbabwe, Malawi, and Uganda Group 3: South Sudan, Sierra Leone, Eswatini, and Kenya Group 4: Nigeria, Tanzania, Ethiopia, and South Africa 	<p>Facilitators:</p> <ul style="list-style-type: none"> Group 1: Juliet Bryant (The Global Fund), Pascale Ondo (ASLM), Samba Diallo (ASLM/ACDC) Group 2: Shirley Lecher (CDC), Raiva Simbi (MoH, Zimbabwe), Anafi Mataka (ASLM) Group 3: George Alemnji (PEPFAR), Michael Maina (ASLM), Fatim Cham-Jallow (The Global Fund) Group 4: Jason Williams (USAID), Eileen Burke (The Global Fund), Getachew Kassa (ICAP)
17.10 - 17.50	Report back from group work (select countries)	
17.50 - 18.00	Wrap up and announcements	Francis Ocen (ASLM)



Day 2 - Thursday 2 December 2021

TIME	SESSION	FACILITATOR/PRESENTERS
14.00 - 14.10	Recap of Day 1	Francis Ocen (ASLM)
Session 4 Update on best practices		Clement Zeh (CDC)
14.10 - 15.10	<ol style="list-style-type: none"> Solutions and good ideas from ECHO sessions in 2021 Highlights on successful country interventions <ul style="list-style-type: none"> return of test results integrating COVID-19 into existing molecular platforms Waste management solution for GTC Community initiatives in addressing gaps in access to diagnostic tests 	<p>Anafi Mataka(ASLM)</p> <p>Karidia Diallo (CDC)</p> <p>Bior Bior (MoH, South Sudan)</p> <p>Monte Martin/David Bressler (CDC)</p> <p>Solange Baptiste (ITPC)</p>
15.10 - 15.20	Q&A	
Session 5 Funding opportunities and priorities		Raiva Simbi (Zimbabwe MoH)
15.20 - 15.35	Priorities for laboratory strengthening in PEPFAR Country Operational Plans	George Alemnji (PEPFAR)
15.35 - 15.50	Priorities for laboratory strengthening: Global Fund perspective	Juliet Bryant (The Global Fund)
15.50 - 16.00	Q&A	ALL
Session 6 Parallel Breakout Session II		
16.00 - 16.45	<p>Aim: Reflection on previously prepared logic framework (from the LabCoP in-country workshop) for addressing prioritised gaps.</p> <p>Key questions for discussion:</p> <ul style="list-style-type: none"> What are the priorities? Are country's priorities addressed through the COP and GF funding cycles? Are we addressing larger laboratory systems? <p>Breakout Groups:</p> <ul style="list-style-type: none"> Group 1: DRC, Burkina Faso, Burundi and Cameroon Group 2: Zambia, Zimbabwe, Malawi, and Uganda Group 3: South Sudan, Sierra Leone, Eswatini, and Kenya Group 4: Nigeria, Tanzania and Ethiopia, and South Africa 	<p><u>Facilitators:</u></p> <ul style="list-style-type: none"> Group 1: Juliet Bryant (The Global Fund), Pascale Ondo (ASLM), Samba Diallo (ASLM/ACDC) Group 2: Shirley Lecher (CDC), Raiva Simbi (MoH, Zimbabwe), Anafi Mataka (ASLM) Group 3: George Alemnji (PEPFAR), Michael Maina (ASLM), Fatim Cham-Jallow (The Global Fund) Group 4: Jason Williams (USAID), Eileen Burke (The Global Fund), Getchachew Kassa (ICAP)



16.45 - 17.30	Report back from group work (selected countries)	ALL
Closing Plenary		
17.30 - 17.45	Recognition	David Lewin (ASLM)
17.45 - 18.00	Closing remarks	ITPC PEPFAR GF WHO ICAP Africa CDC BMGF ASLM

