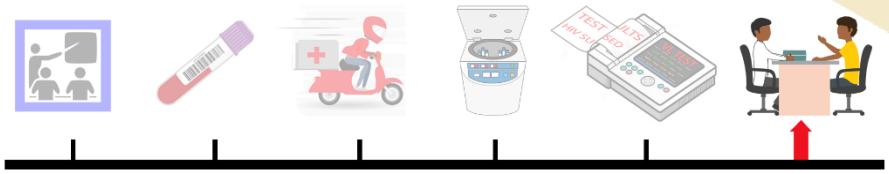
LabCoP QUARTERLY

African Society for Laboratory Medicine
August 2018
Volume 1, Issue 2



May Through July LabCoP Country Visits

Between May and July 2018, the LabCoP team visited participating countries to assess their viral load (VL) program, identify strengths and weaknesses, and make recommendations for addressing weaknesses. These visits are a good opportunity for the LabCoP team to learn about a country's VL testing scale-up challenges, strengthen the links with country teams, and meet with stakeholders and implementing partners. To date Tanzania, Kenya, Sierra Leone, Uganda and Malawi have been visited by Mr Charles Kiyaga and Dr Legese Mekuria, ASLM's LabCoP Program Managers.

During the weeklong visit in each country, the LabCoP team received an overview of the national VL program from the national technical working group. The LabCoP team observed how business is transacted and conducted interviews with staff to gain a better understanding of the strengths and weaknesses of the country's VL testing cascade. Observations from the LabCoP team were shared with the country teams for feedback, before creating a final report for each country.

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These reports constitute the starting point for the formulation of country action plans in combination with the results that will arise from the VL cascade assessment scorecard. Common strengths and weaknesses, and how they can be addressed in action plans will be further discussed during the LabCoP face-to-face meeting in Uganda from 15-17 October 2018. Country visits will then resume in November 2018.

The gaps identified during the LabCoP country visits can guide the prioritization of interventions conducted by implementing partners and countries, leading to improvements of the VL testing cascade and better clinical management. The outcome of the visits can also inform the selection of topics for discussion during monthly LabCoP ECHO sessions and support the dissemination of best practices in neglected areas of laboratory systems.

May and June LabCoP ECHO Session Summaries:

a *special focus on improving HIV viral load test result utilization*

In May, Dr Miriam Rabkin from ICAP at Columbia University, Caroline Caren Ayieko of the Siaya County Health Management Team in Kenya, Dr Limbikani Kanyenda from University Research Company in Malawi, and Dr Michael Odo from the Malawi Ministry of Health discussed result utilization of differentiated care models, whereby viral load (VL) test results serve to triage patients needing intensified care (in cases of unsuppressed VL) and patients needing less intensive follow-up at the community level (in cases of suppressed VL).

Kenya and Malawi shared their experiences implementing the 'Plan, Do, Study, Act' (PDSA) cycle to prioritize and rapidly test 'change ideas' needed to facilitate the rapid identification of unsuppressed VL, followed by swift, appropriate clinical action. The most successful solutions identified included the development of standard operating procedures for the management of unsuppressed VL, color-coding of files for patients with unsuppressed VL, appointing VL focal persons at the facility level, assigning case managers to clients with unsuppressed VL, forming unsuppressed VL support groups, appointing second-line antiretroviral therapy champions, and mentoring staff about enhanced adherence counselling.

The application of 'change ideas' identified during the quality improvement process led to an increasing proportion of patients with unsuppressed VL who completed three enhanced adherence counselling sessions – from 50% to 90% within four months.

The June ECHO session focused on a set of methodologies available to enhance the laboratory-clinical interface for improved laboratory test result utilization. The Laboratory African Regional Collaborative (LARC) project was introduced by Patricia Riley from the International Laboratory Branch of the United States Centers for Disease Control and Prevention, and Winnie Shenna from LARC – Kenya. LARC provides a useful framework based on a capability maturity matrix, business process mapping, and other analytic tracking tools (such as a fishbone diagram) to support continuous quality improvement activities at the facility level.

The Kenyan experience showed that the application of the LARC framework at Homabay County Referral Hospital led to an increasing proportion of VL test results put in patients' files – from 4% to 80% in seven months. A key takeaway is that the collaboration between clinicians, laboratorians and data record units helped to achieve the target. LARC training opportunities are available through an Open School online course, which is free of charge for participants from countries in the United Nation's Least Developed Country list. For countries not on this list, LARC training can be funded by country operational plans.

Take home messages:

Collectively, these two ECHO sessions emphasized the importance of quality improvement, i.e., combined and sustained efforts of the laboratory and clinical teams, patients, stakeholders and educators, in transforming health system performance toward better patient outcomes and the achievement of the third 90 in the UNAIDS 90-90-90 treatment targets.

Please click the YouTube link below to view the May and June LabCoP ECHO sessions.
https://www.youtube.com/playlist?list=PLw-gn36_-CCLz5s_wrUlxKp6ExFzFCqW-

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LabCoP at AIDS2018

The LabCoP core team, oversight committee and country teams gathered for dinner at AIDS2018

During the International AIDS Society's biennial conference (AIDS 2018) in Amsterdam, the Netherlands, the Laboratory System Strengthening Community of Practice (LabCoP) held their first-ever dinner on 25 July 2018, with the goal of sharing a light moment together as a community, evaluating our ECHO sessions, launching the LabCoP Cookbook and sharing upcoming events. The dinner was attended by 15 LabCoP community members, including representatives from Kenya, Malawi, South Africa, Uganda, Zambia and Zimbabwe, and members of the LabCoP core team and oversight committee.

One insightful discussion focused on member attendance at the first seven ECHO sessions. Mrs Jutta Lemer, the Program Planning Manager from Project ECHO at the University of New Mexico, reported that 96 country team members have attended at least one session.

Attendance has ranged between 30 and 42 connections through the four didactic sessions and nine case presentations. The average number of sessions attended per individual is 2.1 and only 23% have attended at least three sessions, suggesting that either participants attend only when a topic is relevant to their work, or that they delegate their participation to a colleague when they are busy. Most participants come from Ethiopia, Tanzania, Kenya and Uganda. In addition to country membership, LabCoP reaches a broad network of individuals working in about 25 organizations.

Some countries have reported difficulty participating in sessions due to insufficient connectivity and/or

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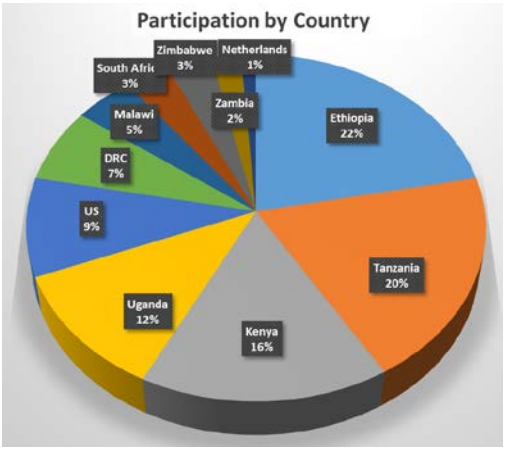
videoconferencing equipment. As a result, many teams do not activate their cameras. Additionally, teams may not report the total number of members attending a session. The connectivity issue is being tackled by the LabCoP management team. In the meantime, members are urged turn on their cameras and register their names in the Zoom chat box, whenever connectivity conditions allow.

Participation on WhatsApp has been more popular than Slack. Presumably, this is because most members use WhatsApp on a daily basis both personally and professionally. However, some interesting discussions commenced on Slack, and LabCoP has posted all discussion material and most of the resources there, including sample transport guidelines, etc. LabCoP encourages members to share more ideas on this exciting South-to-South platform.

During the dinner, the LabCoP team was proud to launch the first recipe of the LabCoP Cookbook. The recipe summarises requirements and solutions for establishing a sample transport network. This recipe and future recipes can be downloaded at the LabCoP Cookbook page. All this work would not have been possible without the dedication and support of LabCoP members.



The Viral Load Cascade Self-Assessment Scorecard

How can countries assess their HIV viral load (VL) testing performance in relation to the general laboratory system?

This question is at the center of the Laboratory Systems Strengthening Community of Practice (LabCoP) project, which aims to identify critical gaps in laboratory systems, monitor progress towards improvement of HIV VL testing outcomes, identify best practices in some countries, and prioritize topics for discussion during the virtual Extension for Community Health Outcomes (ECHO™) sessions.

The African Society for Laboratory Medicine (ASLM), in collaboration with ICAP at Columbia University and the World Health Organization (WHO), have jointly developed a scorecard for the self-assessment of the VL testing cascade at the country level. The scorecard follows the key components of the HIV VL cascade, including demand creation, specimen collection and processing, sample transportation, VL testing, test result return, and result utilization. Key components of the cross-cutting laboratory systems relevant to HIV VL testing (i.e., leadership and governance, workforce, quality management systems, waste management, supply chain and equipment maintenance) are also assessed. This scorecard complements existing tools designed to assess national laboratory systems (such as the WHO Laboratory Assessment Tool (LAT) and the ASLM LABNET scorecard), assess the capacity of laboratory facilities (i.e., the WHO LAT - Facility Assessment Tool and the SLIPTA checklist), assess VL scale-up preparedness and implementation plans at the facility level (i.e., the CDC Monitoring & Evaluation framework for VL Scale-up and Implementation).

The scorecard was built according to the Capability Maturity Model[1], with each step of the VL cascade broken down into component(s) and each component described through question(s), for which graded responses are proposed with scores ranging from 1 to 4. A higher score indicates a stronger, more mature system (high performance) and a lower score indicates a weaker system (or low performance).

The 11 LabCoP country teams are expected to fill out the VL cascade self-assessment scorecard **by the end of August 2018**, based on consensus among the assessment committee members. The results will be analyzed, shared as a dashboard, and used to prioritize critical areas for improvement as part of country action plans, during the first LabCoP face-to-face meeting scheduled for 15-17 October 2018 in Uganda. The VL cascade scorecard provides a framework to objectively monitor country progress towards a more effective HIV VL testing cascade and more functional laboratory systems and to assess the adoption of best practices discussed within the LabCoP community. Download the VL Cascade Self-Assessment Scorecard and User Guide here.

Reference:

1. Kenneth B Yeh et al. Applying a Capability Maturity Model (CMM) to evaluate global health security-related research programs in under-resourced areas. Global Security: Health, Science and Policy, Volume 2, 2017 - Issue 1.

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EXPERT ADVICE:
Anyelwisye Kabuje

Recently, ASLM sat down with Anyelwisye Kabuje, National Laboratory Viral Load Coordinator for Tanzania, to discuss Tanzania's viral load (VL) programme and how it has benefited from ASLM's LabCoP.

ASLM: Mr Kabuje, thank you for joining us today. Would you briefly describe Tanzania's VL programme for our readers?

Anyelwisye Kabuje: Tanzania adopted the 2013 World Health Organization (WHO) Guidelines for VL monitoring in 2015, and started routine VL testing in 2016. The country tested 48 340 samples for VL in fiscal year (FY)16, which was only 6% of the target. In 2017, the programme accelerated VL testing by establishing nine new VL polymerase chain reaction (PCR) laboratories to make 17 in total. Of the 326 804 samples tested in FY17 (i.e., 35% of target), 274 564 samples (84%) achieved VL suppression. In 2018, the programme increased efforts to monitor the efficiency of VL sample transport, minimize equipment downtime, ensure turn-around times within the set national timeline, and monitor VL / early infant diagnosis (EID) scale up by ensuring the availability of reagents.

ASLM: What are some of the programme's best practices?

Anyelwisye Kabuje: Tanzania has adequate VL testing capacity of up to 2.5 million tests per year in 24-hours operation. Adequate supplies for VL testing are also now in place. There is substantial progress in VL testing coverage from 48 340 samples (6%) in 2016 to 326 804 samples (35%) in 2017. The degree of VL suppression in adults over 25 years of age averages 85.5% for men and 86.5% for women. Sample tracking and a hub-based results-return system has helped shorten turn-around time.

ASLM: What are some of the challenges Tanzania's laboratories still face?

Anyelwisye Kabuje: Tanzania's VL / EID programme faces challenges due to an incomplete web-based dashboard and incomplete electronic linkage of laboratory results with care and treatment clinic (CTC). There are also low viral suppression rates for both males and females under the age of 25 years. Machines frequently break down, and there are some delays in fixing the problem. When the machines are working, there are inadequate human resources to utilize the machines to optimal capacity. Tanzania's VL scale-up programme also has low VL testing coverage. Furthermore, there is low demand creation for VL testing services.

ASLM: How has LabCoP helped Tanzania's VL programme?

Anyelwisye Kabuje: Through LabCoP ECHO sessions, we have been inspired to start scaling up the Laboratory African Regional Collaboration (LARC) best practices. These include adding VL test results to patient files, flagging high VL results for easy identification of patients, and use of phone calls to trace patients. We have learned to assign VL champions to follow up with patients with high VL results and to work with pharmacies to increase demand for VL testing. LabCoP has also helped by sharing with Tanzania the best practice of hub-and-spoke operations, whereby hubs reach the spokes for sample collection. We have piloted this programme in the Kagera Region and scale up will depend on performance.

UPCOMING EVENTS

Check out these upcoming training and networking opportunities from around the world.

LabCoP Face-to-Face - Kampala, Uganda, 15-17 October 2018
LabCoP's first ever face-to-face meeting, supported by WHO, CDC, and the Bill and Melinda Gates Foundation, will commence in Kampala, Uganda from 15-17 October 2018 at the Speke Resort Hotel, Munyonyo. This interactive and educative meeting will include members of the LabCoP Management Team, Oversight Committee, country team members and major development/implementing partners. The goal is to discuss the outcome of country assessments, identify gaps for improvement along the viral load (VL) cascade and prioritize interventions through informed country action plans. Please look out for an email invitation from the LabCoP Management Team in

ASLM2018 - Abuja, Nigeria, 10-13 December 2018
ASLM2018 is the fourth biennial international conference of the African Society for Laboratory Medicine (ASLM). ASLM2018 aims to serve as a platform for the international laboratory medicine community to share best practices, acquire knowledge and debate innovative approaches for combatting global health threats. ASLM2018 is scheduled to be held at the Transcorp Hilton. For more information or to register for ASLM2018 visit http://ASLM2018.org/.

Looking Ahead:

September's **ECHO Session** will feature a presentation on 'VL test demand creation' by Solange Baptiste, Executive Director of ITPC http://itpcglobal.org/.

October's **ECHO Session** will feature a presentation on 'Waste management and VL testing' by Luca Fontana in collaboration with the MSF (Médecin Sans Frontière) team https://www.msf.org/.

The 2nd **International Conference on (RE-) Emerging Infectious Diseases** will take place in Addis Ababa, Ethiopia from 13-15 March, 2019 at the African Union Conference Center. Download the meeting flyer here.

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