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AFRICAN SOCIETY FOR LABORATORY MEDICINE

ADVANCING THE LABORATORY PROFESSION AND NETWORKS IN AFRICA

Lab CoP

The Laboratory System Community of Practice (LabCoP)

ICAP GLOBAL. HEALTH. ACTION. Columbia University Mailman School of Public Health

UNM SCHOOL of MEDICINE

Project ECHO

Supported by the Bill & Melinda Gates foundation

Anafi Mataka

Integrated Diagnostics Consortium meeting 12-13 Sept 2019

Washington DC, USA

Outline

LabCoP Framework

What are we doing?

Who are we working with?

LabCoP Theory of Action

How are we achieving our goals?

The tools

What are the instruments and resources developed?

The LabCoP Framework

THE VIRAL LOAD CONTINUUM...

PLHIV Eligible for VL Tests (1) → Tests Requested (2) → Samples Collected (3) → Samples Transported (4) → Tests Performed (5) → Results Returned (6) → Results Utilized (7)

OUTCOMES

Patients with VL suppression referred to less intense models of care

Patients with elevated viral load referred to intensified adherence counseling, resuppressed, or changed to 2nd Line

....AND THE LAB SYSTEMS THAT SUPPORT IT

- Quality Management Systems
- Laboratory Information Systems
- Sample Referral
- Supply Chain & Equipment
- Policy & Regulation
- Workforce
- Biosafety & Biosecurity
- Infrastructure

THE STAKEHOLDERS INVOLVED

- Implementing Partners
- Policy Makers
- Civil Society
- Clinicians
- Program Managers
- Laboratory Staff

LabCoP Theory of Action

LabCoP THEORY OF ACTION

AIM: TO FACILITATE THE IMPROVEMENT OF LABORATORY SYSTEM FUNCTIONS AND ACCELERATE THE SCALE-UP OF HIV VIRAL LOAD TESTING FOR IMPROVED PATIENT OUTCOMES

Defining key steps in VL cascade and lab systems

Assessments of VL cascade and national lab systems

Prioritizing challenges

Identifying best practices

"Community of practice" of national labs, clinical, civil society stakeholders

National operational plans

Implementation of best practices and ongoing QI

National budgets, GF funding cycles, PEPFAR COPs

OUTCOMES

- Increased access to viral load testing
- Improved patient outcome
- Increased laboratory systems functionality

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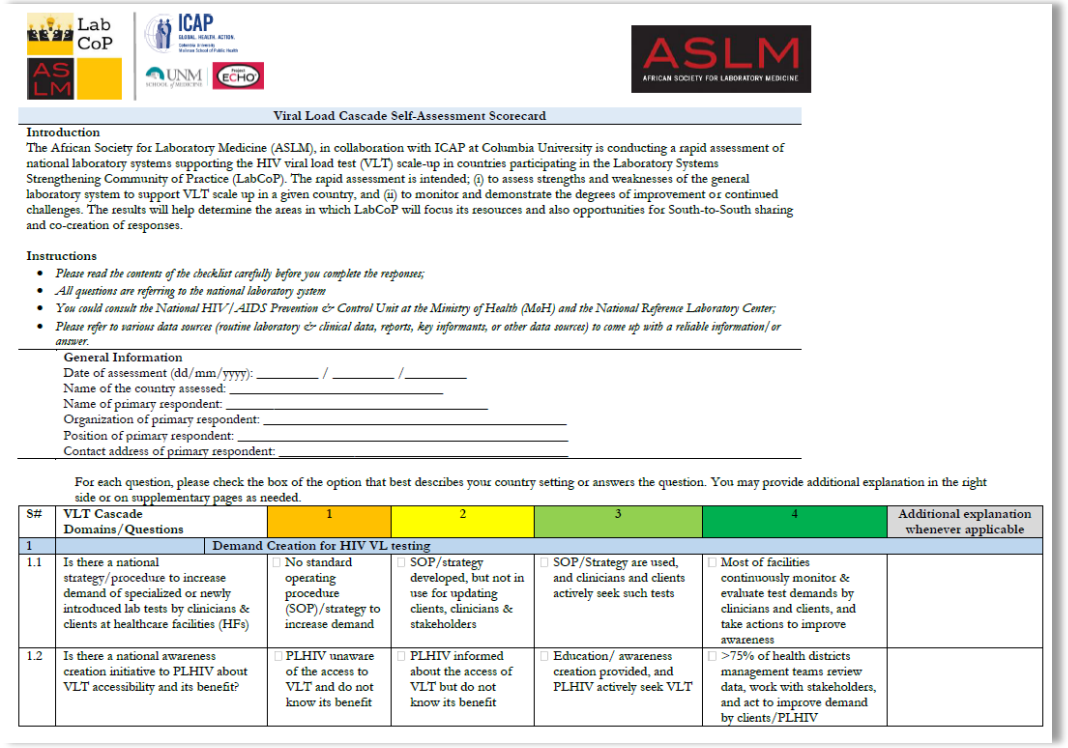
LabCop Tools and Resources

1- The viral load testing cascade self assessment scorecard

The HIV viral load testing cascade self-assessment tool



Viral Load Cascade Self-Assessment Scorecard

Introduction

The African Society for Laboratory Medicine (ASLM), in collaboration with ICAP at Columbia University is conducting a rapid assessment of national laboratory systems supporting the HIV viral load test (VLT) scale-up in countries participating in the Laboratory Systems Strengthening Community of Practice (LabCoP). The rapid assessment is intended; (i) to assess strengths and weaknesses of the general laboratory system to support VLT scale up in a given country, and (ii) to monitor and demonstrate the degrees of improvement or continued challenges. The results will help determine the areas in which LabCoP will focus its resources and also opportunities for South-to-South sharing and co-creation of responses.

Instructions

- *Please read the contents of the checklist carefully before you complete the responses;*
- *All questions are referring to the national laboratory system*
- *You could consult the National HIV/AIDS Prevention & Control Unit at the Ministry of Health (MoH) and the National Reference Laboratory Center;*
- *Please refer to various data sources (routine laboratory & clinical data, reports, key informants, or other data sources) to come up with a reliable information/or answer.*

General Information

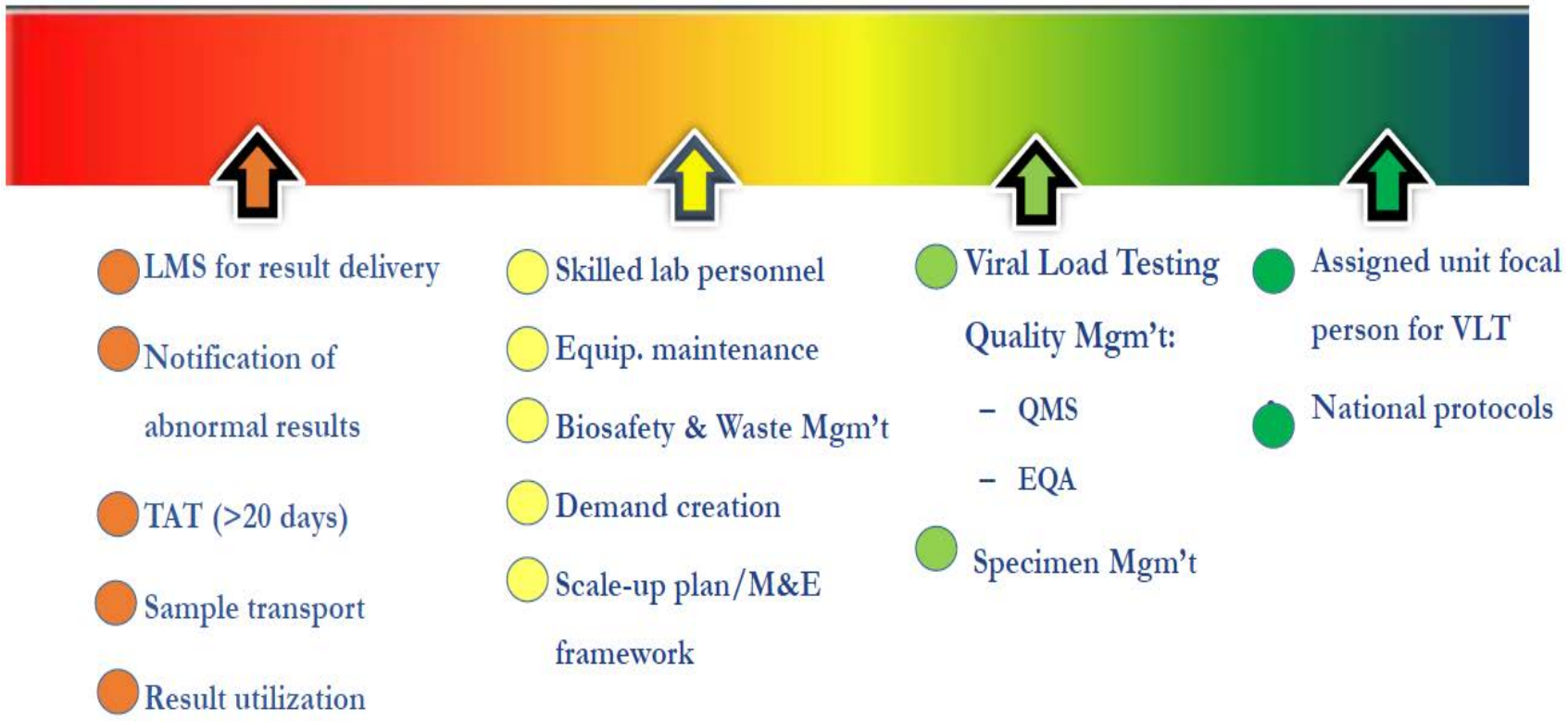
Date of assessment (dd/mm/yyyy): _____ / _____ /_____
Name of the country assessed: _____
Name of primary respondent: _____
Organization of primary respondent: _____
Position of primary respondent: _____
Contact address of primary respondent: _____

For each question, please check the box of the option that best describes your country setting or answers the question. You may provide additional explanation in the right side or on supplementary pages as needed.

S#	VLT Cascade Domains/Questions	1	2	3	4	Additional explanation whenever applicable
1	Demand Creation for HIV VL testing					
1.1	Is there a national strategy/procedure to increase demand of specialized or newly introduced lab tests by clinicians & clients at healthcare facilities (HFs)	☐ No standard operating procedure (SOP)/strategy to increase demand	☐ SOP/strategy developed, but not in use for updating clients, clinicians & stakeholders	☐ SOP/Strategy are used, and clinicians and clients actively seek such tests	☐ Most of facilities continuously monitor & evaluate test demands by clinicians and clients, and take actions to improve awareness	
1.2	Is there a national awareness creation initiative to PLHIV about VLT accessibility and its benefit?	☐ PLHIV unaware of the access to VLT and do not know its benefit	☐ PLHIV informed about the access of VLT but do not know its benefit	☐ Education/ awareness creation provided, and PLHIV actively seek VLT	☐ >75% of health districts management teams review data, work with stakeholders, and act to improve demand by clients/PLHIV	

- ❑ standard tool to asses the national VL testing program, designed as a scorecard with color coded results
- ❑ 6 domains of the testing cascade and systems
  - **demand creation**
  - **Specimen collection and processing**
  - **Sample transport**
  - **Laboratory testing**
  - **Results utilization**
  - **Leadership & management**
- ❑ One section to quantify the national VL testing cascade.

Results at baseline among the 11 LabCoP countries: common areas of weaknesses



- ❑ **Demand creation**
- ❑ **Network optimization**
  - Coverage
  - Turnaround time
  - efficiencies
- ❑ **Result utilization**
- ❑ **Waste management**

Prioritization and focus for better planning

Country-specific weaknesses: example of Ethiopia

Ethiopia

Domain 1: demand creation

- Develop National strategy or procedure on demand creation
- Strengthen strategy for awareness creation initiatives to PLHIV and stakeholders

Domain 2: Specimen collection and processing

- Develop a national protocol for sample management and enforce it at facility level
- Conduct CQI activities to reduce the rate of specimen rejection

Domain 3: Sample transportation

- Further improve the sample transportation system to integrate other types of specimen for other diseases.
- Improve the TAT time of test results across the sample referral network

Domain 4: HIV testing

QMS:

- Work towards all VLT labs to be at least SLIPTA audited and certified, and finally accredited.
- Improve on innovative approaches for sharing VL test results from the lab to clinic for HIV C&T

Waste management

- Develop and disseminate national biosafety manual

Supply chain and equipment

- Develop a national plan for equipment maintenance
- Increase workforce capacity for equipment maintenance

Domain 5: Results utilization

- Develop standardized strategies and processes for referring patients

Domain 6: Leadership and management

- Strengthen the Unit or TWG responsible for national lab system strengthening
- TWG to develop an M & E plan or framework for the scale up of VL

Educate the PLHIV to increase demand for VLT

Expand QMS to all laboratories doing VLT, Move towards country–coordinated SLIPTA programmes

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LabCoP tools and Resources

2- The strategic decision tool

The strategic decision tool

- Identify, summarize and categorize all useful best practices into strategic interventions across the prioritized areas for improvement, through

  →Country to country exchanges

  → Input from Subject matter expert and stakeholders

- Use the strategic decision tool to propose intervention in country action plan

Strategic Decision Table for Scaling-Up Viral Load Services

S#	Strategic areas	Strategic options*	Priority action items for improvement**
I	**Demand Creation**		
1	Leadership and Coordination	• Review demand and service availability • Mobilize district health officers (DHO) and IP support	• Develop plan for demand creation based on availability and capacity to balance with the demand • VL dashboard to track coverage alongside denominator of # of ART clients per facility • Share VL coverage targets for national, regional, district and facility teams
		• Understand the community perceptions • Advocacy structures at national, district and community level • Specific funding for demand creation	• Review survey results or conduct mini-survey to understand community perception • Use of existing organizational structures from national to community level for demand creation. • Community based structures of PLHIV for demand creation. • Resource mobilization for demand creation targeting frontline health care teams and civil society • Strengthen the lab clinician interface for effective planning and results utilization • Giving priority to pediatrics and adolescent communities
2	Capacity of healthcare providers	• Training • Review meeting • Viral load campaigns • Site visits	• Training of trainers (national, regional and facility trainings) • Monthly national level data review meetings for IPs/districts. • District/hub level review meetings to review coverage, suppression and rejection • Districts set up quarterly testing targets per facility with ART numbers as denominators.

From strategic decision tool to action plans to funding

- ❑ Develop evidenced-based action plans to address prioritized areas

→ 11 action plans addressing demand creation and results utilization

- ❑ linkage the plans to **existing funding and implementation** opportunities and mechanisms:
  - PEPFAR country operational plans (COP)
  - Global Fund planning or reprogramming cycles
  - National budgets

→ OGAC and CDC Headquarter and country team have supported the inclusion of demand creation and result utilization in COP19

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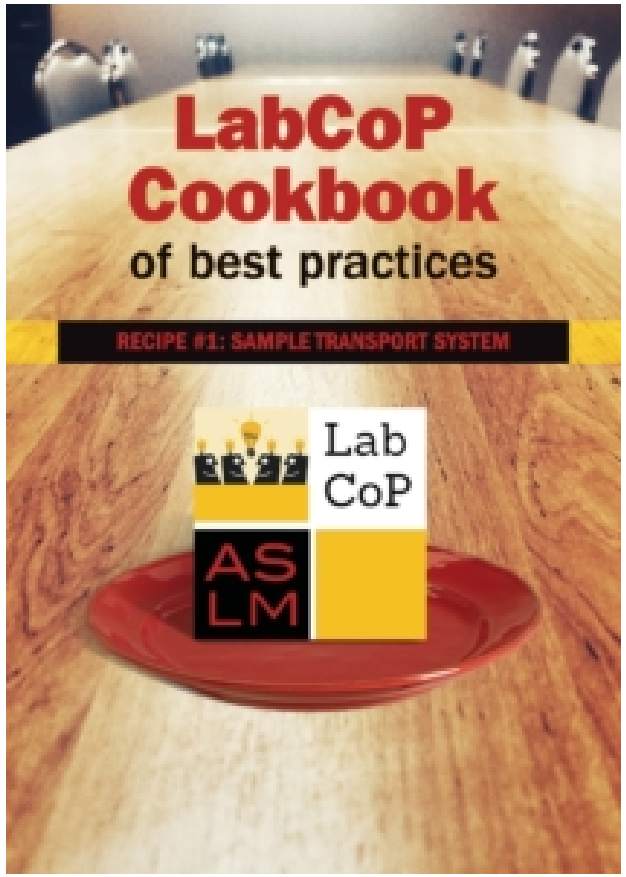


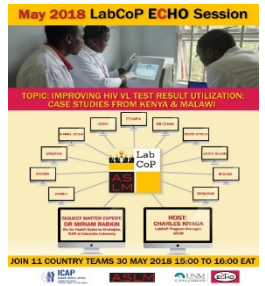
LabCoP tools and Resources

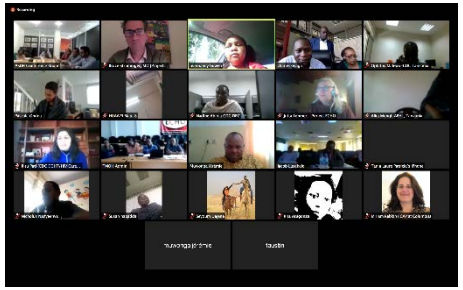
3- The LabCoP cookbook of recipes

Example of the Result utilization Recipe

Knowledge co-creation and dissemination within the LabCoP

Knowledge, solutions, tips and various good ideas are summarized into practical guidelines at the attention of multidisciplinary team (not only laboratory)





JAIDS
JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES

Guidelines from CDC, WHO, etc…

CRITICAL RESULT NOTIFICATION

Critical laboratory test results, in this case (UVL), must be immediately flagged and communicated to clinicians and multidisciplinary teams for immediate action. These systems should be optimised at the site level to match the local context and resources. Several simple approaches have been found to be highly effective, including:

- Use of a separate UVL register
- Mobile texting
- Reports designed to highlight UVL (e.g., color coding, unique tagging, symbols)
- Using stickers on charts
- Labelling results with 'Urgent'' or 'ASAP', or other methods to expedite linkage of results with action.
- Routine audits of time between receipt of critical results to time clinical action is taken.

STANDARD OPERATING PROTOCOL

Development of a guide or standard operating procedure (SOP) for reporting VL and/or other laboratory results, and monitoring its implementation facilitates the sustainable delivery of results. Engagement of clinicians, counsellors, laboratorians, and recipients of care in the development of SOPs helps to ensure they are practical and feasible at the site level.

2 RESULT REVIEW AND CLINICAL ACTION

TIMELY RESULT REVIEW AND INTERPRETATION

Clinicians should receive, review, and interpret test results based on national/local patient management guidelines. Key interventions to support timely and accurate use of VL test results include:

- Critical result notification systems and SOPs ensure clinicians and multidisciplinary teams see results and prioritise them appropriately.
- Training, ongoing supportive supervision and development of job aides support appropriate action – whether VL is unsuppressed or suppressed.
- Routine review of patient management by site-level multidisciplinary teams should include assessment of VL-guided services.
- Routine review of program level data at the health facility and program levels (see Section 4, Monitoring and Evaluation below).

CONNECTION OF RESULTS, CLINICIANS, AND PATIENTS

Once results have been reviewed by lab personnel, prompt action to connect results, clinicians, and patients is required. In some settings, patients receive timely follow-up appointments after VL specimen collection, i.e., they are scheduled for VL results review within 1-2 weeks. In this context, a systematic review is needed to make sure those appointments occurred, and the loop has been closed. In other settings, a VL result requires scheduling an urgent appointment with patients. In either case, understanding the current process is the first step towards improving it. At many facilities, this is complicated, as processes may be implicit or misunderstood. It may not be clear who is responsible for each step. Additionally, what is actually happening may be very different from what is supposed to happen. Experience shows that:

- Develop a process map with site staff and patients to enable program managers to identify gaps and opportunities for improvement.
- Review data on an ongoing basis, whether in the context of routine M&E or quality improvement activities, to identify what proportion of patients receive results within the appropriate timeframe.

APPROPRIATE AND TIMELY CLINICAL SERVICES

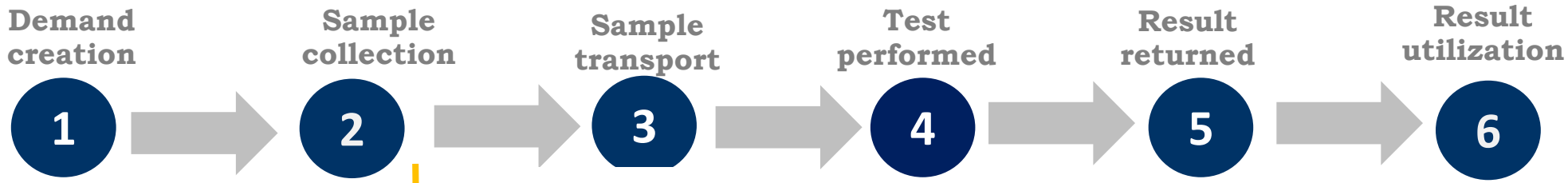
The World Health Organization and national guidelines generally recommend that patients with SVL (and other criteria for 'stability') be referred to DSD services, although these vary substantially between and within countries. Guidelines also recommend that patients with UVL receive 3 EAC sessions within approximately 3 months, followed by a repeat VL test and either referral for DSD (if suppressed) or switch to a new ART regimen (if persistent UVL is documented).

- UVL management should be guided by step-by-step SOPs, including systems and tools to support EAC.
- Sites and programs can adapt existing UVL toolkits, such as the one developed by ICAP at Columbia University (see Resources on next page).

CASE MANAGERS

Assigning case managers to UVL clients helps to provide improved care. Case managers make periodic contact with patients to assess and monitor changing needs and provide care as needed.

Knowledge co-creation and dissemination within the LabCoP



S. Baptiste (ITPC)
Mozambique
Moses Super Charger
Uganda

C. Kiyaga (ASLM)
Kenya
Uganda

P. Fonjungo (CDC ILB)
Convent. testing

POC VL & EID
J. Sacks(CHAI)
Zimbabwe
Malawi
J. Lemaire(EGPAF)
9 Countries

P. Riley (CDC ILB)
LARC

K. Chigudu (NHLS)
South Africa
Zambia

M. Rabkin (ICAP)
Kenya
Malawi

Policy & regulation

Sample referral

- Waste management – **CDC ILB**
- Management of unsuppressed patients – **L. Vojnov - WHO**
- Public Private Partnerships – **Ravi – CDC ILB**
- Laboratory network Optimization - **Jason & Matt – USAID/ PSM**

Supply chain & equipment

Quality management systems

Workforce

Lab Information Systems

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LabCoP can also assist partners in disseminating their own resources

- The waste management training package
- The Laboratory African Regional Collaborative (LARC)
- The CDC viral load and EID testing scorecard

This will be part of the **phase 2 of the LabCoP project**

- Face to face meeting Oct 22-24, Addis, Ababa
  - Assessment of country action plans and progress
  - Enhanced engagement of civil society and recipients of care to support the demand and correct utilization of test results
  - New lab system strengthening topics beyond VLT
    - diagnostic testing
    - evidence-based optimization of lab networks
- Expansion to Francophone regions??

Thank You

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