ASLM

AFRICAN SOCIETY FOR LABORATORY MEDICINE

ADVANCING THE LABORATORY PROFESSION AND NETWORKS IN AFRICA

Global Task Force on Cholera Control (GTFCC)

Existing training programs and opportunities for training

Anafi Mataka
Portfolio Lead

Vision, Mission and Values

Vision

A healthier Africa through access to quality laboratory services for all

Mission

To enable and empower national stakeholders to enhance the laboratory profession, practice, science, and networks

Values & Guiding Principles

We set the agenda for laboratory medicine
We strive to be leaders in laboratory science, aspiring to actively and strategically engage our stakeholders to define, shape and advance the laboratory medicine agenda in Africa.

Diversity is in our DNA
We aim to represent the diversity of perspectives and expertise within laboratory medicine on the continent, through active listening, meaningful engagement, the delivery of culturally sensitive and context specific assistance.

We treat our community like family
We embody collaboration and teamwork in all that we do, leaning on each other – our staff, society members, donors, and partners – to celebrate successes and work through challenges with a steadfast commitment to respectful and equal partnership.

We strive for improvement
We strive for continuous improvement, efficiency, and excellence in our results, and we demonstrate integrity in getting there.

We are Africans committed to Africa
We are serious about our pledge to whole-heartedly serve our fellow-citizens on the African continent and are dedicated to developing solutions that reflect our values and priorities as Africans.

Vision and Mission

Vision

A healthier Africa through access to quality laboratory services for all

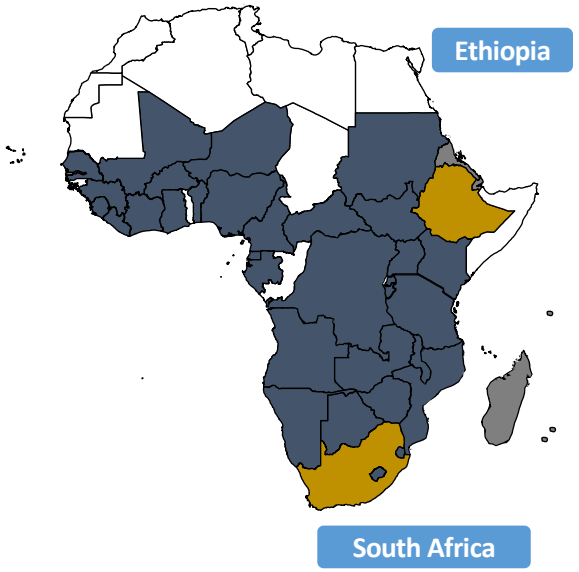
Mission

To enable and empower national stakeholders to enhance the laboratory profession, practice, science, and networks

ASLM is a local and Africa based partner: Programmatic sustainability

Over 10 years experience and ability to lead programming and absorb support from global partners

- Intervention that address **African contexts** (not one size fits all)
- **Leveraging** on solutions designed by and for Africans



Strategic Priorities

STRATEGIC PRIORITY 1: REFINE AND IMPROVE ASLM'S CORE TECHNICAL STRENGTHS

ASLM will leverage and strengthen our existing core technical strengths:

1. **Education, Training and Knowledge Sharing**
2. **Network and Laboratory Systems Strengthening**
3. Standards and Regulations

STRATEGIC PRIORITY 2: BUILD AND ORGANIZE THE LABORATORY PROFESSION

ASLM will work to ensuring that the laboratory profession is structured, organized, and has the recognition and visibility on the African continent to deliver health outcomes

STRATEGIC PRIORITY 3: INNOVATE AND GROW TO STAY RELEVANT

We will continuously innovate to stay abreast of and aligned with emerging needs in the laboratory medicine space, and expand our geographic influence to embrace the diversity of the whole African continent through:

1. **Program and Technical Innovations**
2. Expanding our Geographic Influence

STRATEGIC PRIORITY 4: INVEST IN OUR PEOPLE AND SYSTEMS

We are committed to investing in the people, processes, and tools that will allow us to deliver on our technical priorities, including:

1. Financial stewardship
2. Operational agility
3. Metrics for management
4. Knowledge management and communications
5. Advocacy
6. Recruitment and retention

Strategic Priority 1: Refine and Improve ASLM's Core Technical Strengths

1. Education, Training And Knowledge Sharing

- The ASLM Academy, ASLM Conference, publications, and communities of practice (CoPs) are – and will remain – key
- Focus on creating and sustaining knowledge hubs that can facilitate knowledge sharing across our laboratory medicine community.

OBJECTIVE: To create a larger pool of competent laboratory professionals armed with context-relevant skills

OUTPUT 1: The ASLM Academy is established as a premier educational and training platform accessible to all laboratory professionals in Africa

OUTPUT 2: Contextualized scientific laboratory knowledge is generated and disseminated widely and effectively to a range of stakeholders to facilitate better diagnostics

Lab CoP

ASLM ACADEMY

LABNETLEAD
Laboratory Network Leadership

Strategic Priority 3: Innovate and Grow to Stay Relevant

Technical Innovations

- Our work to date has primarily focused on the HIV/AIDS
- However, having strong laboratory networks and diagnostics benefit multiple disease areas and will be critical.

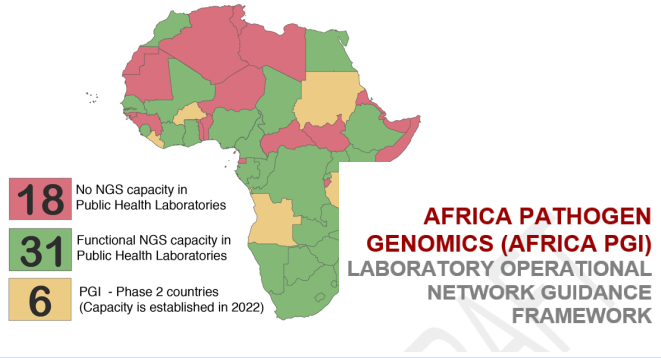
OBJECTIVE: To innovate in and grow technical areas to ensure that ASLM remains relevant and meets laboratory needs across Africa

OUTPUT 1: ASLM's work is expanded to include additional laboratory diagnostic areas

OUTPUT 2: ASLM stays abreast of and shapes the market for laboratory diagnostics

Tools and guidance to increase access to essential diagnostics

Implementation of Next Generation Sequencing



Online tools

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CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

Roche

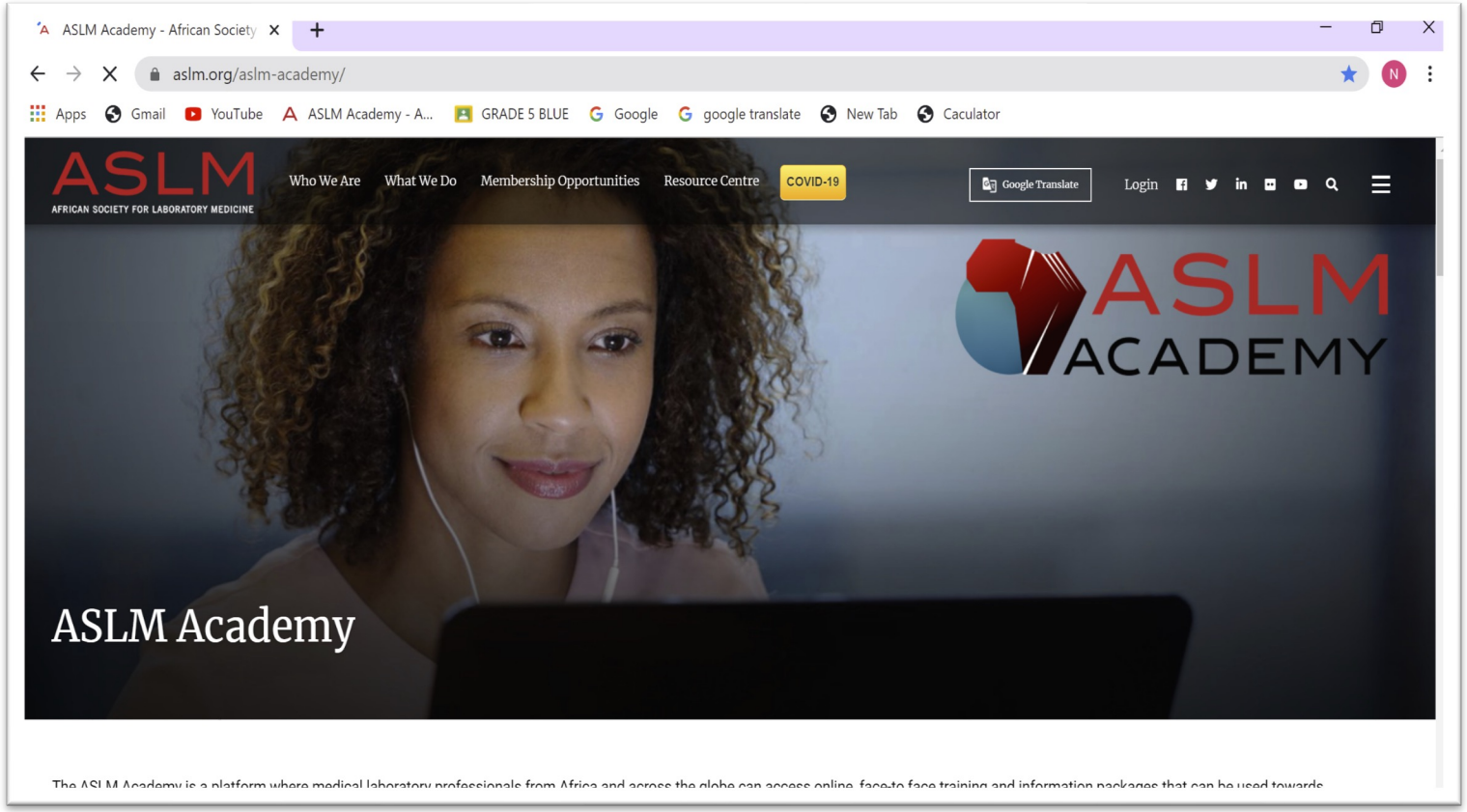
Waste Cost Assessment Framework (WCAF)

Assay Verification Tool

Workforce development

ASLM Academy

Launched in March 2020



https://aslm.org/aslm-academy/

Why an ASLM Academy?

- In service training is a very popular intervention shortage and skills of human resources (HR) for health.

- But
  - ✓Not working towards clear staffing norm-based targets;
  - ✓Not always complying with standards of educational quality
  - ✓Uncertain effectiveness in developing skills and competence in addition to knowledge
  - ✓Insufficiently formalized credentials

Infrastructure to organize

- the delivery of quality trainings
- the delivery of associated credentials,
- professional registrations
- continuous monitoring of workforce development
  - Certificates
  - CPD points

The building blocks of the ASLM Academy

Training packages, courses and other educational activities

Steering and Advisory committee

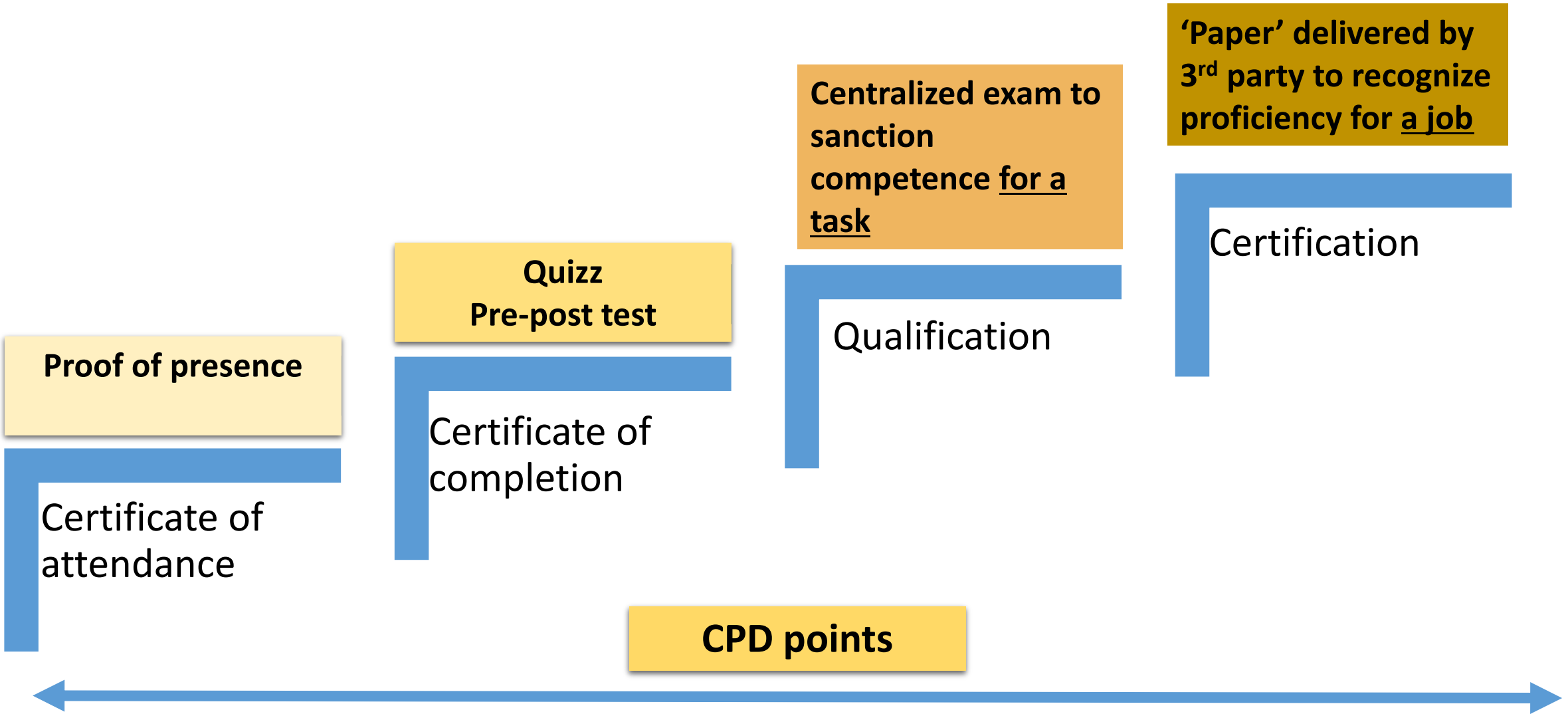
Credentials

Learning management platform (moodle)

Secretariat

Recognition by national professional authorities

The staged value of credentials



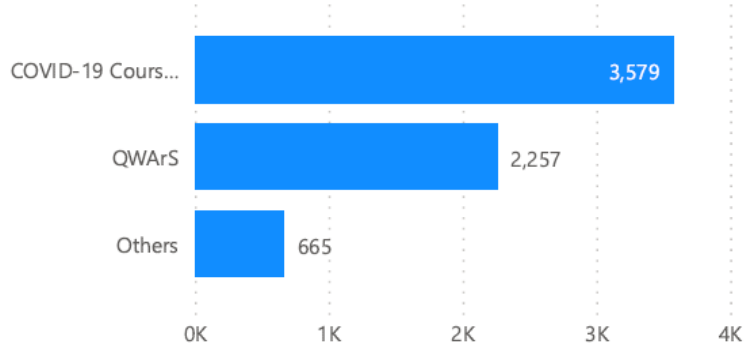
ASLM Academy

Overall # certificates issued

6,501

Where are the participant coming from?

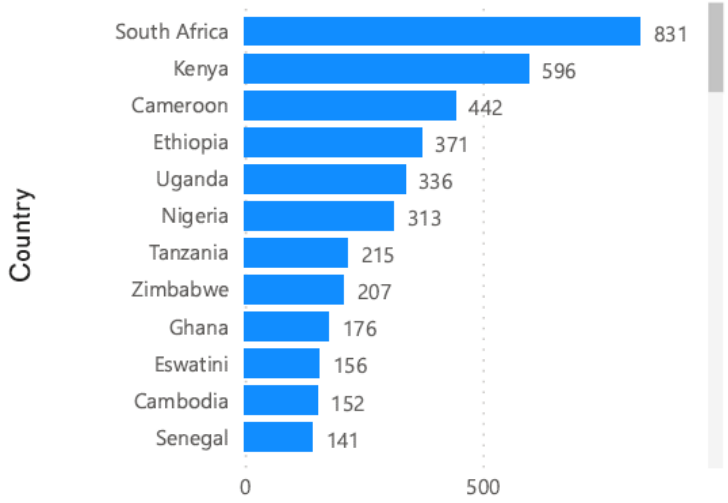
Enrollments by Program



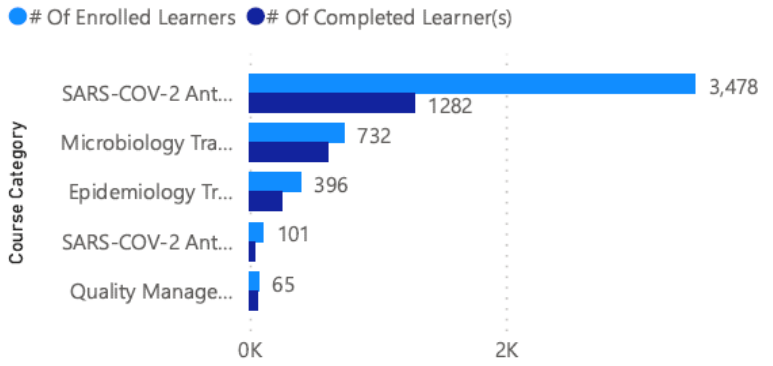
Tracking Completion Rates for select courses

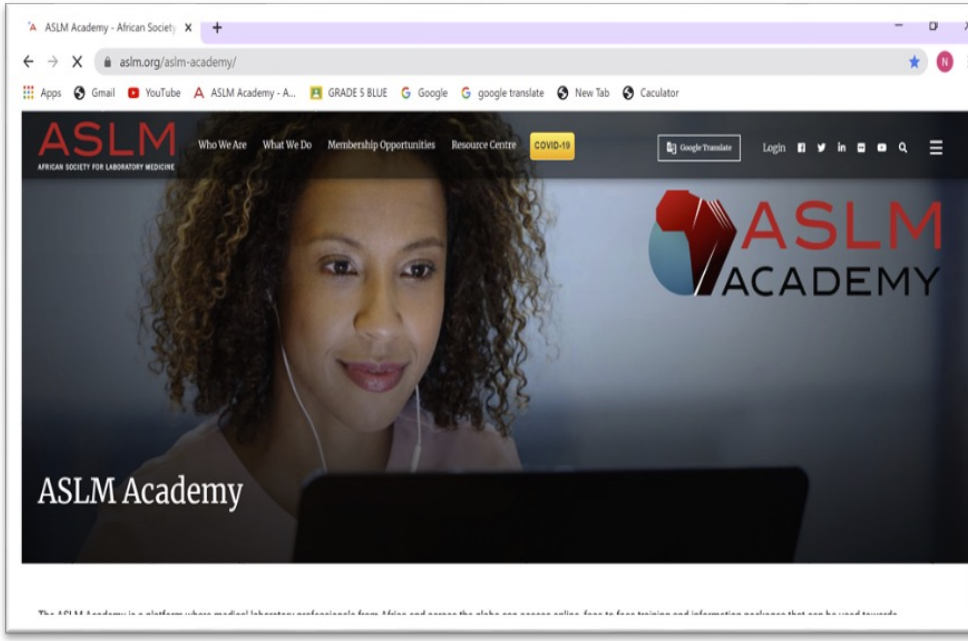
1,727	1295	75%
# Enrolled	# Completed	Completion Rates

Enrolled per Country



Of Enrolled vs Completing Learners by Course Category



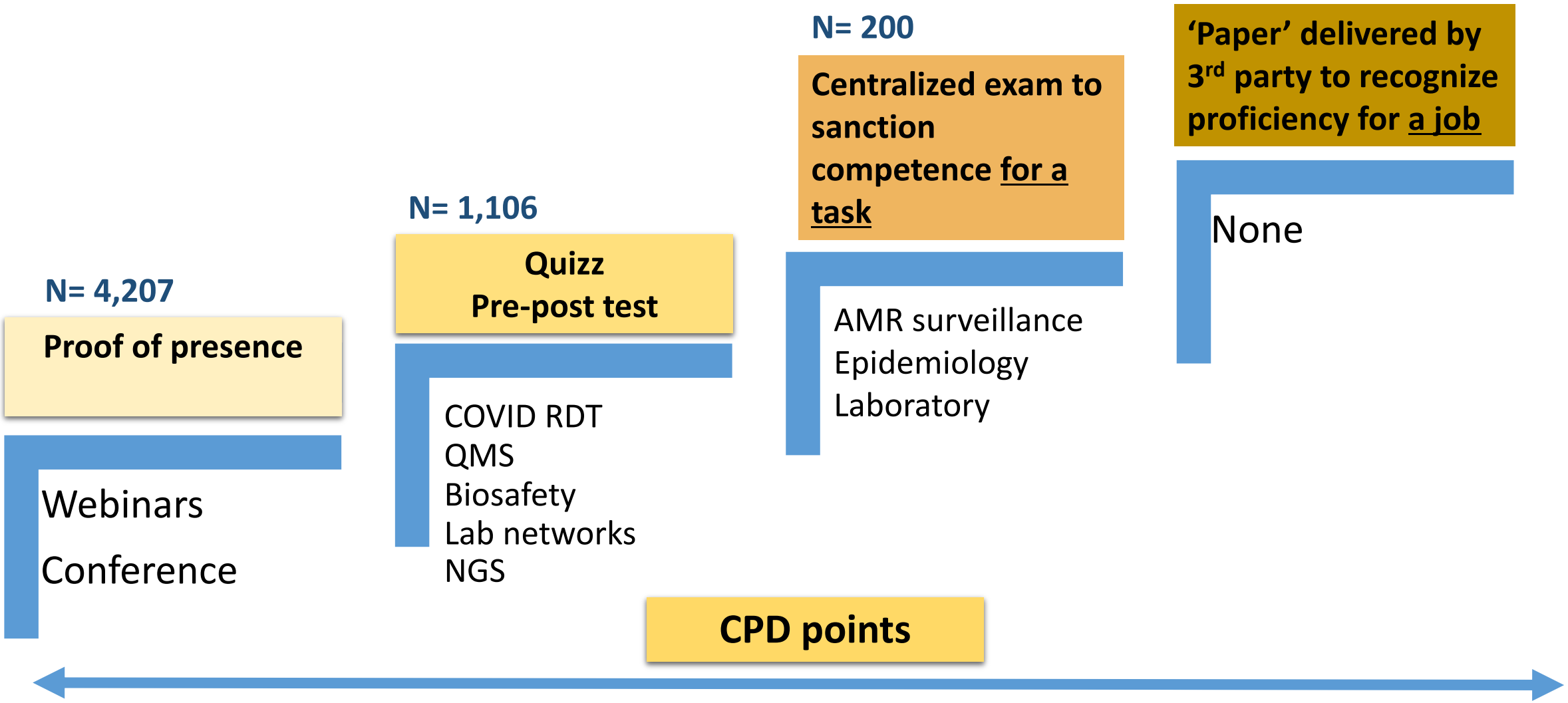


5 Courses got accreditation with CPD providers

- **Wits Health Consortium**
- **European Accreditation Council for Continuing Medical Education**

Currently engaging Regulatory Councils and Lab Associations for in-country recognition and accreditation

Achievements so far



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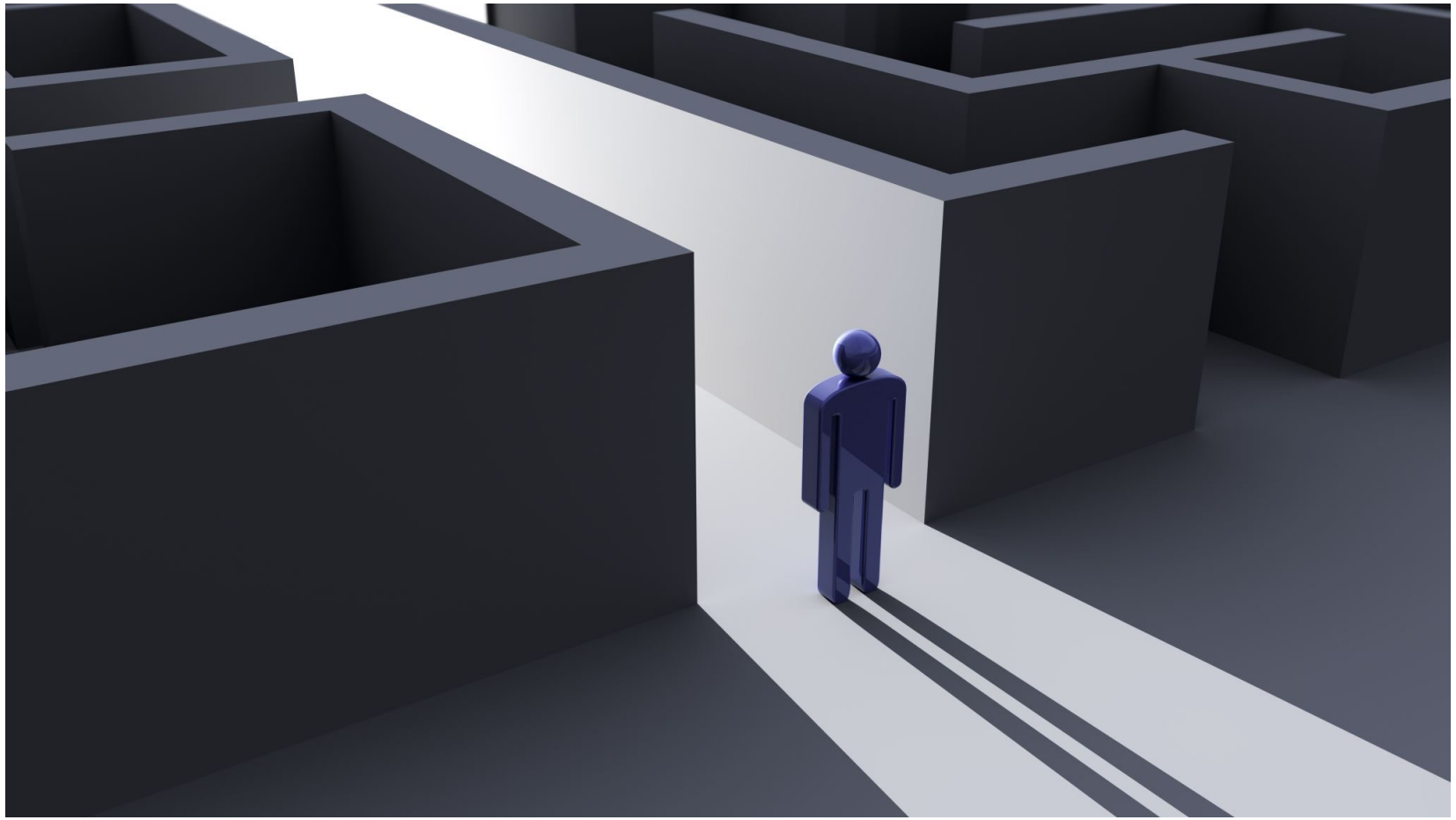
Our reach extends beyond the African continent

Opportunities



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Qualifying the Workforce for AMR surveillance in Africa and Asia

QUALIFYING THE WORKFORCE

QWArS

FOR AMR SURVEILLANCE IN AFRICA AND ASIA

UKaid

from the British people

The Fleming Fund

Regional Grants

QUALIFYING THE WORKFORCE QWArS FOR AMR SURVEILLANCE IN AFRICA AND ASIA

Training curriculum

Module	**ASLM AMR Microbiology Skilled -** *able to perform the field and laboratory tasks required to identify and track AMR*	**ASLM AMR Epidemiology Skilled-** *able to perform the field and laboratory tasks required to identify and track AMR*
1	**Introduction to AMR (core module)**	
2	**AMR data management (core module)**	
3	Bacteriology testing	Basic data management and analysis
4	Equipment maintenance	Sampling and surveillance
5	Quality management	Communication skills
	ASLM AMR Microbiology Expert - *able to design and manage systems for AMR surveillance*	**ASLM AMR Epidemiology Expert –** *able to design and manage systems for AMR surveillance*
6	Advanced techniques	Spatio-temporal analysis of AMR
7	Supervision skills	
	Master Trainer (Micro) or Epi – *able to create and deliver educational programs for AMR professionals*	

The QWArS Approach

Online and face to face training

The Professional exam

Registration and its maintenance via CPD including good conduct

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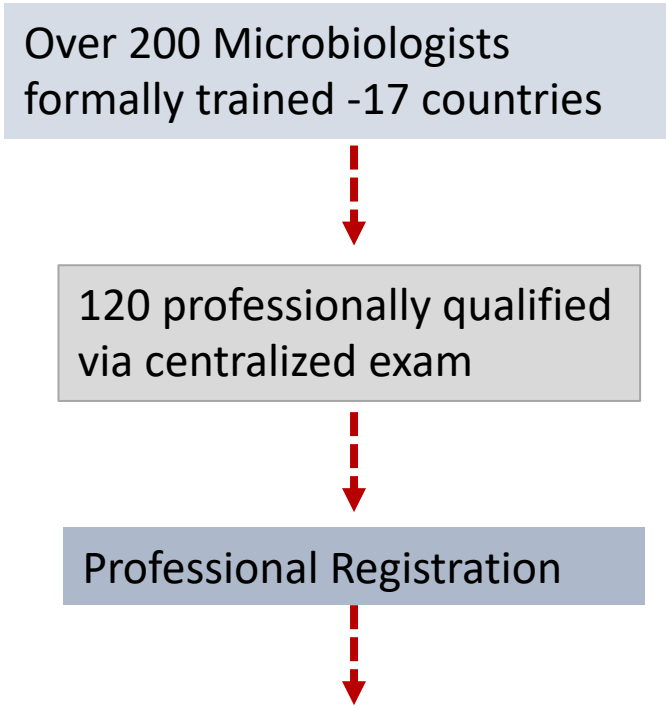
Can we leverage on existing bacteriology modules – e.g module 2, 4 5and 6

- Face-to-face module covers theoretical and practical aspects of bacteriology testing for human and animal health.
- Theory - overview of the GLASS pathogens and other regionally identified priority pathogens, and their identification methods (*microscopy, culture, biochemical tests etc*.).
- Practical training in culture and AST and resistance detection based on the basic methods available in the bacteriology laboratories in the region (manual and automated techniques).
- novel technology such as WGS and MALDI-TOF can be applied to identify certain pathogens,



- *Demonstrated Knowledge and skill*
- *Level of public confidence*
- *Individual commitment to maintain skills*

ASLM ACADEMY

Our reach extends beyond the African continent

Cholera sequencing work under PGI - ongoing discussions

- PGI is looking to expand NGS to pathogens of priority.

- Can NPHIs can be used for Cholera surveillance? Ghana
  - are sent straight to centers of excellence for testing, instead of the current two step process of screening at community level with rapid test kits, then swapping and transporting to reference sites for conformation.

- Supported Malawi PHIM conduct sequencing for malawi to identify source of outbreak
  - training of PHIM staff on genomic sequencing and Bioinformatics

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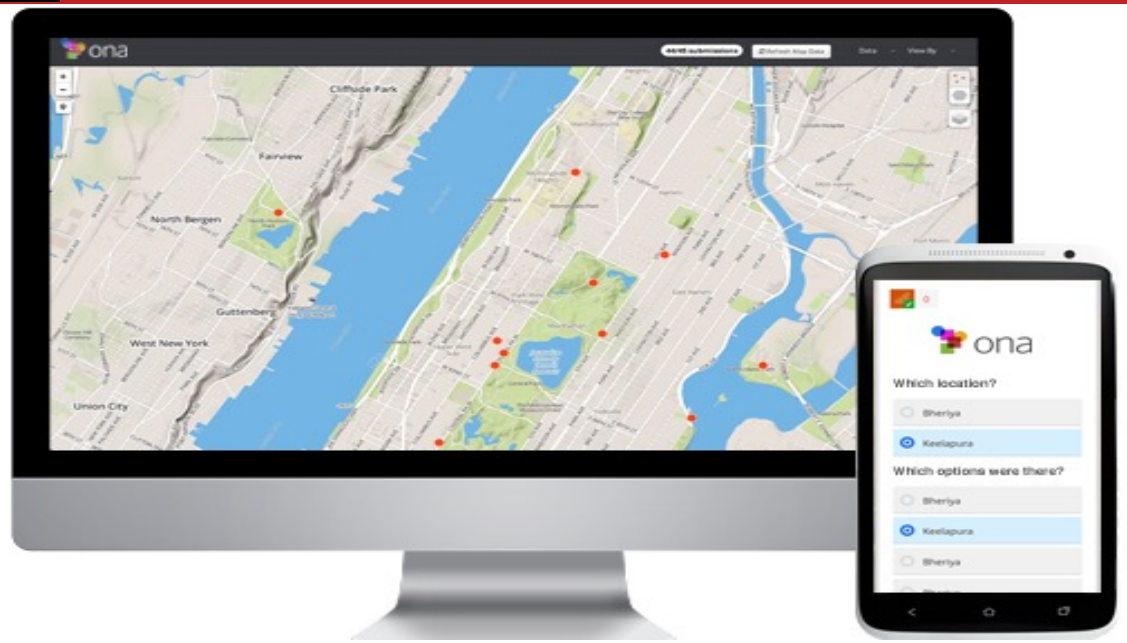

Unlocking the power of the tiered laboratory network through laboratory mapping

RESOLVE TO SAVE LIVES

African Union

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

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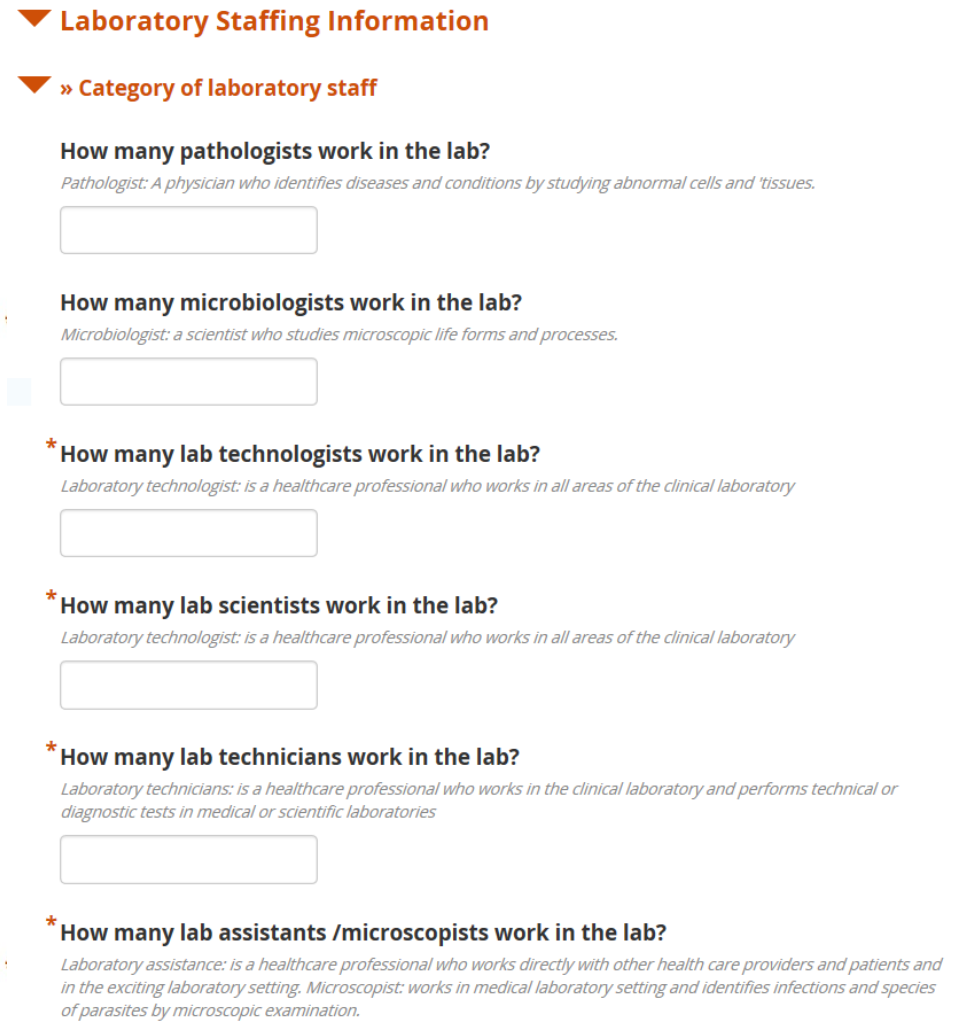
InSTEDD

IRESSEF

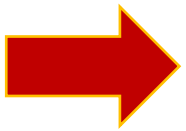
Collect Laboratory Data

- Use pre-configured, customizable and reusable digital forms via Ona.io that allow to collect data offline
- Collect GPS coordinates and service data via onsite assessments
- Integration to a facility registry (database) for curation & use,
- The data collection tool covers test menu (including AMR), QMS, staffing, linkage to networks, infrastructure, etc…



Diagnosis of hemolytic beta streptococcus group A

- [ ] PCR
- [ ] serology
- [ ] quick test
- [ ] Microscopy
- [ ] Culture
- [ ] antibiogramme
- [ ] not available



Diagnosis of cholera

- [ ] PCR
- [ ] serology
- [ ] quick test
- [ ] Microscopy
- [ ] Culture
- [ ] antibiogramme
- [ ] not available

Diagnosis of salmonellosis

- [ ] PCR
- [ ] serology
- [ ] quick test
- [ ] Microscopy
- [ ] Culture
- [ ] antibiogramme
- [ ] not available

Diagnosis of shigellosis

Implication of test implementation in terms of population coverage

Exhaustive list

ONA

Test menu (> 120 diagnostics)

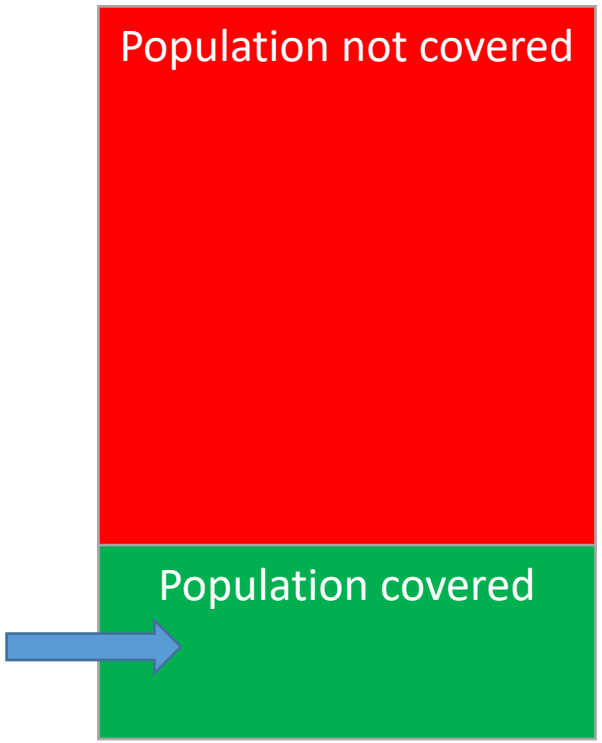
- HIV diagnostics
- Hepatitis
- EHF
- Bacteriology
- Tuberculosis
- Parasitology
- Immuno-Hematology
- Blood banking
- Histology

Priorities of *Country* MoH

Actual availability of tests at each tier

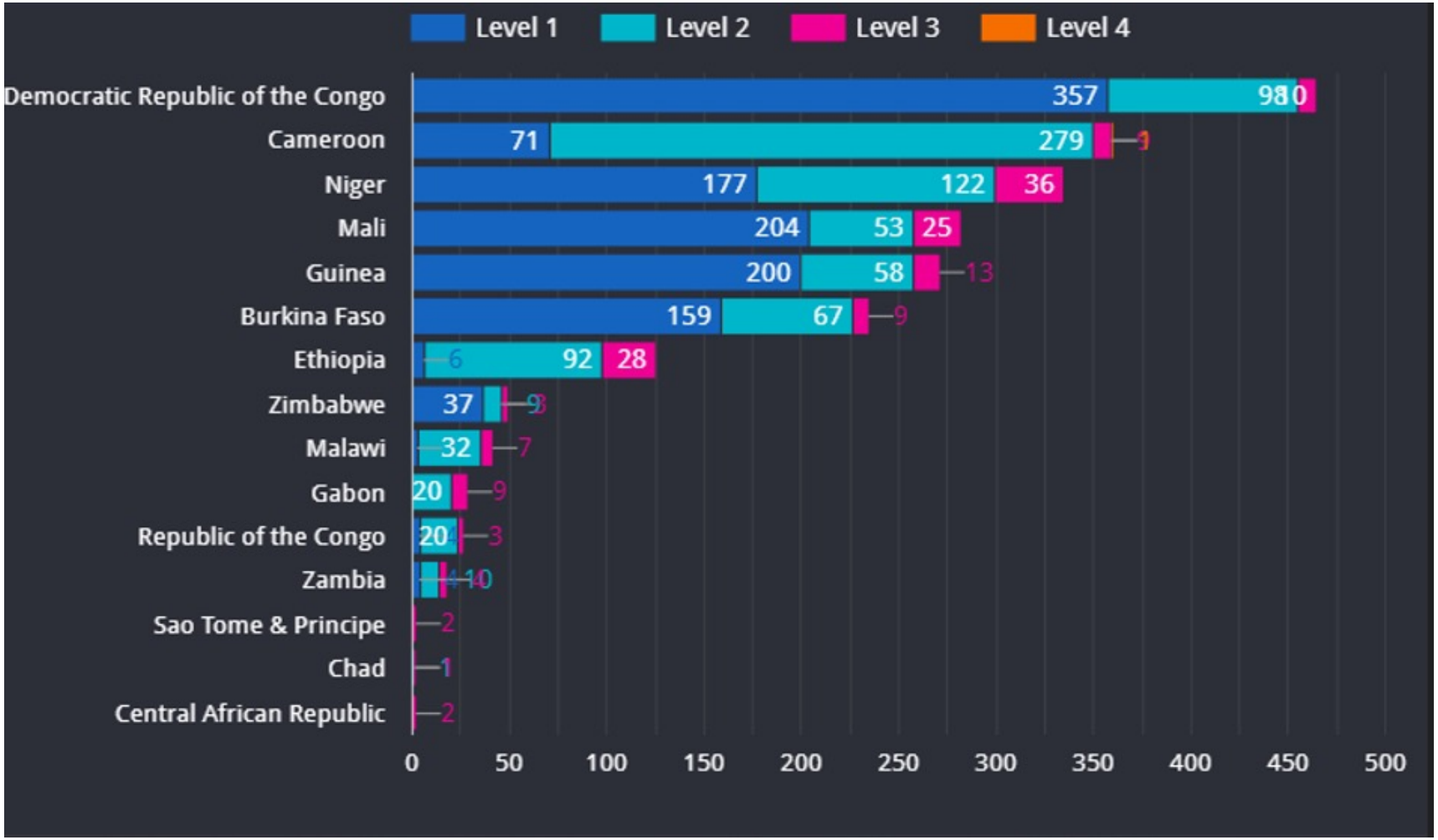
- Tier 1
- Tier 2
- Tier 3

Gaps between policy and practices



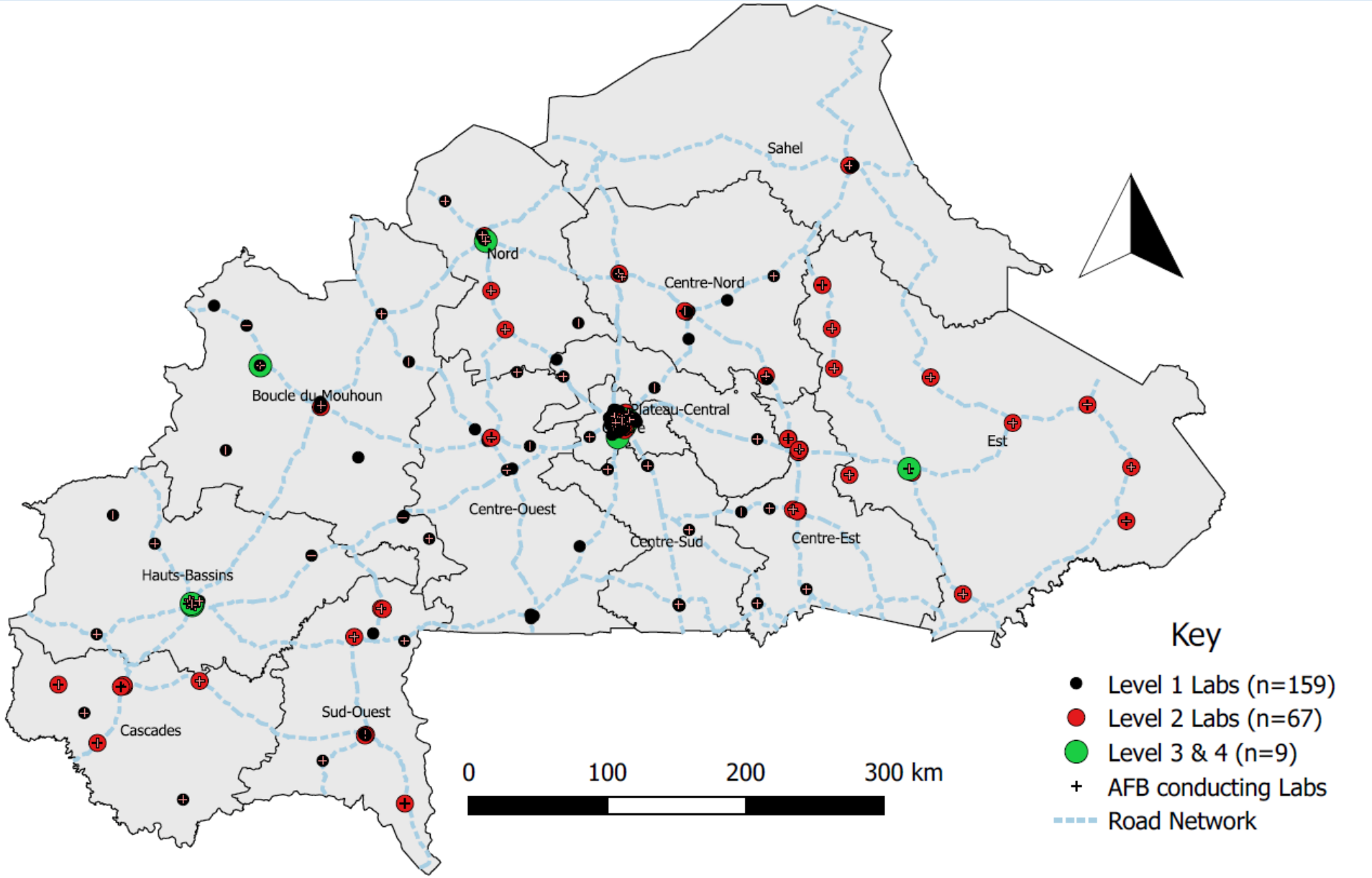
Implication for UHC Prioritizing improvements

Mapped Labs across the 15 member states



A total of 2,291 have been mapped

Distribution of population coverage of microscopy for AFB (example)



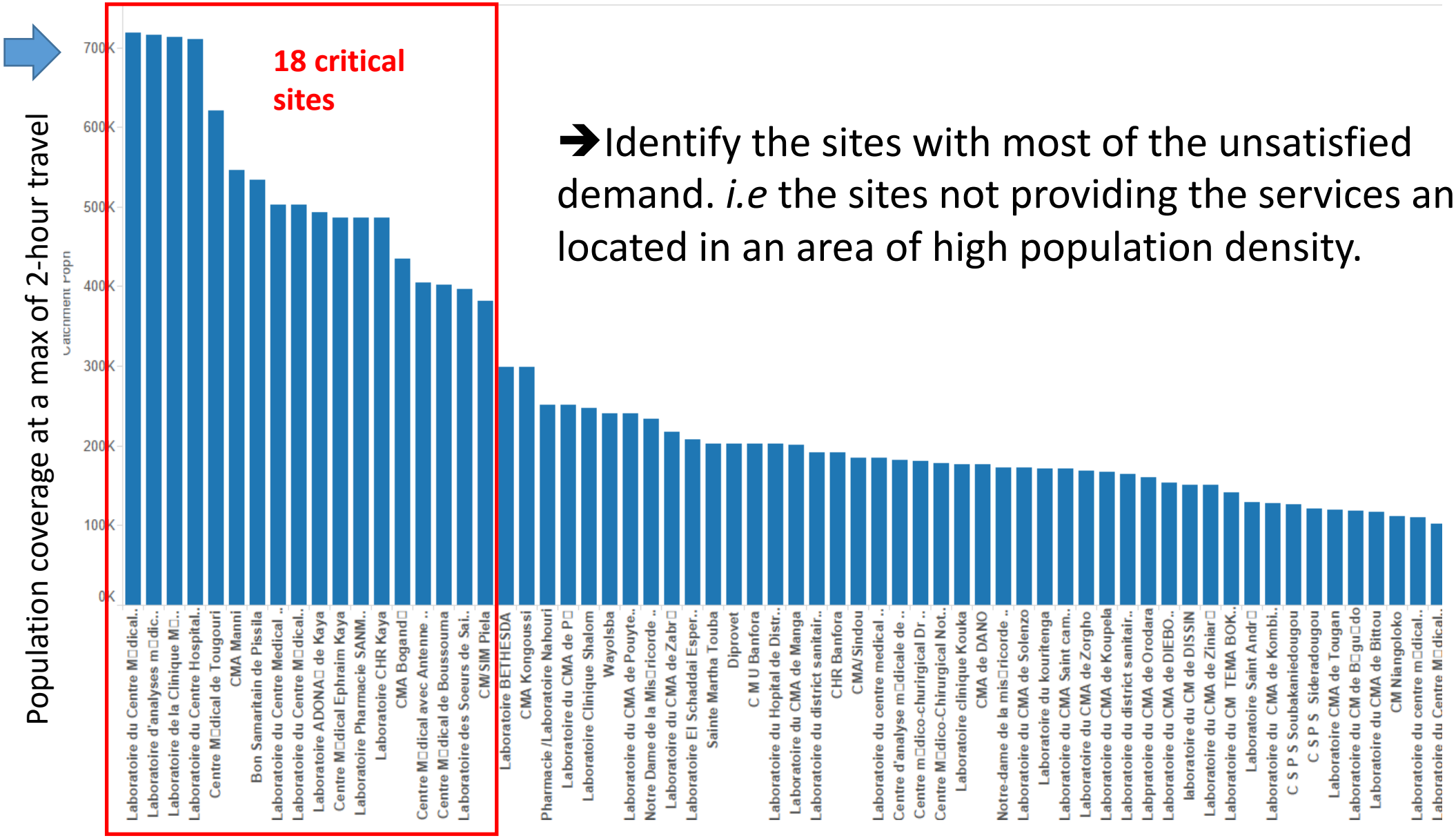
100 Laboratories conduct microscopy for the identification of AFB

- 57 at tier 1
- 36 at tier 2
- 7 at tiers 3 & 4

Good population coverage (almost 100%), but microcopy is not the most reliable technique

Where to place new capacity to increase the coverage up to 80%?

700,000



➔Identify the sites with most of the unsatisfied demand. *i.e* the sites not providing the services and located in an area of high population density.

Quality Management Systems for Bacteriology Regional EQA Programme

EQuAFRICA
External Quality Assessment for AMR Testing

- **>130 participating Laboratories across 14 priority countries**
- **One Health Programme**

ACCREDITATION: ENTIRE SCOPE/BACTERIOLOGY

14 Labs earmarked in 7 countries (3 HH, 8 non-HH, 3 EQA providers)

- **10** Labs already received recommendation for accreditation (5 AH, 4 HH, and 1 Food Health)

SLIPTA

15 labs currently under assessment in 6 countries

- 80% of assesssed facilities have shown measured inprovement in QMS

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Thank You