Project Stellar

Strengthening COVID-19 Diagnostic and Laboratory systems investments in Africa through Partnerships

Special COVID-19 ECHO session # 53

March 31, 2022
Accessibility to quality assured diagnostic services are fundamental for quality health care and sound public health decision-making.

In COVID-19 pandemic response, access to lab. testing services is pivotal for:

- Timely identification, isolation and treatment of infected persons (essential for breaking transmission chain)
- Epidemiological surveillance
- Public-health control measures formulation
- Evidence-based decisions regarding national policies
- Informed intervention programming & informed resources appropriation

“...The most effective way to prevent infections and save lives is by breaking the chain of transmission. And to do that, you must test and isolate. You cannot fight a fire blindfolded. And we cannot stop this pandemic if we don’t know who is infected. We have a simple message for countries: test, test, test.”

- Dr. Tedros Ghebreyesus, WHO Director-General
| Planning & Regulatory          | No COVID-19 testing Strategy  
|                               | Registered products          |
| Procurement & Supply Chain    | Low procurement rates        
|                               | Insufficient supplies distribution mechanisms |
| Implementation                | Low testing coverage with only portion of regions activated  
|                               | Antigen use cases limited to symptomatic cases |
| Data Management               | Data reporting largely limited to PCR platform  
|                               | Inadequate or lack of currently reporting systems for antigen testing data |
| Community-level Expansion     | Testing limited to health facilities, no community-based use cases  
|                               | Lack of policies to guide transition from facility to community-based testing |
On-the-ground partners in the African region and country teams (CTs) have highlighted three key barriers:

**Governance and policy**
National-level guidance and policies are not aligned with testing needs

- Some countries **have not** registered Ag-RDTs as an approved diagnostic device
- National policies **often hinder scale-up** (e.g. rules prohibiting community health workers and lay cadres from administering tests), or **does not exist altogether**

**Limited Resources / Training**
Most countries have <50% of their Health facilities offering Covid testing

- Insufficient COVID-19 tests to meet global targets
- Testing is centralized and most health facilities and communities are not yet activated to provide Covid-19 testing services
- Health facilities are **understaffed hence limited number** of staff are trained on core **competencies** e.g., test administration, sample handling, quality assurance, waste management
- Countries **laboratory systems readiness** levels are **inadequate** for effective response to emerging disease treats and pandemics

**Data management**
Lack of reliable testing data hinders further implementation support

- **Limited training** for HCWs on data recording or management
- Only 30% of countries in African region currently reporting Ag-RDT to central level.
- **Standard data management** tools to allow reporting and tracking of testing rates are not available. Need for integrating COVID-19 data into existing LIS/HMIS; new digital apps to capture Ag RDT results

**National-level gaps**
**Community-level gaps**
Despite the significant GF investment thru C19RM funding for the Lab Diagnostic Lab System, testing rates remain low in many African countries

The Global Fund is one of the key Partners who has made significant contribution to the COVID-19 response since the outbreak the pandemic:

- To-date, The GF has invested over $800M through the C19 RM funding mechanism (as at end 2021)
- GF is largest funder of Ag-RDTs in the global health community

These 20 African countries represent ~70% of total C19RM funding in Dx and lab systems

- 0 countries (0%) are meeting the ACT-A testing target of 100 tests / 100,000 persons / day

Source: AUCDC data as of November 8th C19RM budget data as of November 9th
Figures include all funding categorized as “Laboratory systems” and “COVID Diagnostics and testing” in the C19RM budget dataset
*Considerations for implementing and adjusting public health and social measures in the context of COVID-19, ACT-Accelerator Strategic Plan & Budget: October 2021 to September 2022
To bridge these gaps: The GF, has made available $10M for capacity support to accelerate implementation of C19RM Investments in Diagnostics and Lab systems in prioritized African countries.
## Project Stellar

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>The Global Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus</strong></td>
<td>Supporting Implementation of Diagnostic and Laboratory Systems Investments for COVID-19 in the African Region</td>
</tr>
<tr>
<td><strong>No. countries</strong></td>
<td>30 (Known = 22; TBD = 8)</td>
</tr>
<tr>
<td><strong>TA To countries</strong></td>
<td>TA to be through Partners under Stewardship of the Africa CDC</td>
</tr>
</tbody>
</table>
| **Partners to deliver TA** | African Society for Laboratory Medicine (ASLM)  
                      | Clinton Health Access Initiative (CHAI)  
                      | Association of Public Health Laboratories(APHL) |
| **Life of Project (LoP)** | Mar 2022 – Dec 2023 |
1a. Strengthen diagnostic governance and leadership at the national level

1b. Scale-up testing in areas without community testing

2a. Increase testing coverage in areas with insufficient community testing

2b. Strengthen data management systems

3. Advocate for, pilot & establishing capacity for wastewater-based surveillance (WWBS) for COVID-19 epidemiology

INTERVENTION

LEAD PARTNER

CHAI

ASLM

APHL

FOCUS

Supporting Implementation of Diagnostic and Laboratory Systems Investments for COVID-19 in the African Region
**INTERVENTION 1:**
**STRENGTHENING DIAGNOSTIC GOVERNANCE & SCALING UP TESTING**

### Key Interventions:

- **Intervention 1a.** Strengthen diagnostic governance and leadership at the national level
- **Interventions 1b.** Scale-up testing in areas without community testing

**Operational**

- **Timeframe:**
  - March 8, 2022 - Dec 31, 2023

### CHAI LEAD: Intervention 1

**Project Consortium and Roles**

<table>
<thead>
<tr>
<th>Consortium Lead</th>
<th>CHAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Grant management and implementer for specific countries</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consortium Partner</th>
<th>ASLM</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Regional support</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-Contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Implementers:</td>
</tr>
<tr>
<td>PSI – Madagascar</td>
</tr>
<tr>
<td>Solina Health – Chad, Congo, Gambia, Guinea</td>
</tr>
<tr>
<td>Amref Health Africa – South Sudan</td>
</tr>
<tr>
<td>Regional Support - Health Poverty Action</td>
</tr>
</tbody>
</table>

### Interventions and Countries

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a + 1b (7 countries + 2 TBD)</td>
<td>Chad, Congo, Cote-d’Ivoire, Ghana, Madagascar, Nigeria, Tanzania</td>
</tr>
<tr>
<td>1b only (6 countries)</td>
<td>Burkina Faso, DRC, Gambia, Guinea, Mali*, South Sudan</td>
</tr>
</tbody>
</table>

*Pending confirmation from MOH following need assessment phase*
### INTERVENTION 1: STRENGTHENING DIAGNOSTIC GOVERNANCE & SCALING UP TESTING

<table>
<thead>
<tr>
<th>Proposed TA Work Areas</th>
<th>Project Priorities</th>
<th>Expected Deliverables</th>
</tr>
</thead>
</table>
| **Decentralization of Testing** | • Identify impactful settings for antigen testing deployment  
• Coordination of antigen testing trainings/scale up | Intervention 1A  
• # of countries implementing **multi-disease testing**  
• # of countries with **national testing strategy** highlighting role of PCR and antigen testing  
• # countries with favorable policies for testing by **non-lab personnel** |
| **Strategy** | • Models for multi-disease testing (TB, HIV, and / malaria)  
• Role of self-testing & high-risk population screening | |
| **Human Resources** | • Development of training plans  
• Expand testing access through task shifting | |
| **Community-Based Testing** | • Expansion of antigen testing to additional settings  
• Promote public education & community engagement | |
| **Monitoring & Evaluation** | • Coordination of supervision & mentorship  
• Improve utility of M&E data | |
| **PSM & Resourcing** | • Quantification planning and commodity procurement support  
• Identify sufficient resources for diagnostic response | |

---

**PSM & Resourcing**

- Quantification planning and commodity procurement support
- Identify sufficient resources for diagnostic response

---

**Community-Based Testing**

- Expansion of antigen testing to additional settings
- Promote public education & community engagement

---

**Monitoring & Evaluation**

- Coordination of supervision & mentorship
- Improve utility of M&E data

---

**Human Resources**

- Development of training plans
- Expand testing access through task shifting

---

**Strategy**

- Models for multi-disease testing (TB, HIV, and / malaria)
- Role of self-testing & high-risk population screening

---

**Decentralization of Testing**

- Identify impactful settings for antigen testing deployment
- Coordination of antigen testing trainings/scale up

---

**Proposed TA Work Areas**

To be defined on further consultation with country stakeholders
INTERVENTION 2: INCREASING TESTING COVERAGE & STRENGTHENING DATA MANAGEMENT SYSTEMS

LEAD: Intervention 2

- **Intervention 2a:** Increase testing coverage in areas with insufficient community testing
- **Intervention 2b:** Strengthen data management systems

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a only (7 countries + 2 TBD)</td>
<td>Botswana, Ethiopia, Lesotho, Malawi, Mozambique, Togo, Zambia,</td>
</tr>
<tr>
<td>2b only (5 countries + 3 TBD)</td>
<td>Ghana, Kenya, Nigeria, Sierra Leone, Tanzania</td>
</tr>
<tr>
<td>2a + 2b (1 country)</td>
<td>Uganda</td>
</tr>
</tbody>
</table>

Consortium Lead
- Grant Management,
- Regional Support

Consortium Partners
- CHAI country offices
- BHP for Botswana

Sub-Contractors
- Solina Health in Togo
- Health Poverty Action for Reg. Support
## Proposed Work Areas

### Project Priorities *(To be dependent on country specific based on NA)*

<table>
<thead>
<tr>
<th>Work Area</th>
<th>Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decentralization of Testing</td>
<td>• Support activating additional COVID-19 testing sites</td>
</tr>
<tr>
<td></td>
<td>• Facilitate and</td>
</tr>
<tr>
<td>Human Resources</td>
<td>• Support strengthening service providers competences</td>
</tr>
<tr>
<td></td>
<td>• Task-shifting; EQA implementation</td>
</tr>
<tr>
<td>PSM Strengthening</td>
<td>• Support the coordination for quantification planning and commodity procurement</td>
</tr>
<tr>
<td>Community-Based Testing</td>
<td>• Integrating and expand Ag RDT testing into existing community-based health service delivery models/interventions such as HIV &amp; TB community interventions</td>
</tr>
<tr>
<td>M&amp;E/data systems</td>
<td>• Explore support towards innovative electronic data reporting mechanisms at testing facility level and national level to ensure timely data reporting and utilization M&amp;E:</td>
</tr>
<tr>
<td></td>
<td>• Support DQAs of Supervision/Mentorship</td>
</tr>
</tbody>
</table>

### Expected Deliverables

- **of countries exceeding the minimum WHO COVID-19 testing targets of 1 / 1,000 persons per week**
- **% Increase in health facilities/communities per country activated to implement COVID-19 testing**
- **% Increase in health facilities per country certified as per national standards to conduct COVID-19 testing**
- **# Countries reporting disaggregated(PCR, Ag RDT) COVID-19 test results to central level**
- **# Countries reporting integration of COVID-19 samples into existing sample transport networks**
INTERVENTION 3  Establishing capacity for wastewater-based COVID-19 epidemiology & supporting implementation of pilot surveys.

- **COVID-19 outbreaks** remain a serious threat globally
  - *WWBS* provides **early warning (7 days)** of increased transmission.\(^1\)
  - Provides data for **public warnings to reduce spread of disease** and to inform public health actions such as increasing access to vaccines.
  - Cost efficient versus diagnostic testing for COVID-19 **surveillance**.
    - Decrease in public seeking diagnostic testing or increase of rapid antigen test with lack of reporting to MoH.

- **WWBS capability developed now has a future role** in early detection and assessment of other high consequence pathogens and environmental contaminants.

- Results from South Africa NICD WWBS testing in 5 provinces shows value of this surveillance method.

INTERVENTION 3

Ethiopia, Kenya, Mozambique, Uganda

01 Lab Assessments.

02 Validated Protocol. Community of Practice.

03 Reliable test data. Electronic data management plan.

04 Policy. Sampling plans. Data management & interpretation.

05 Training, mentoring, EQA. “Twinning”

Stakeholder Engagement
Dynamic and evolutionary nature of the COVID-19 pandemic rapidly influences Countries’ priority policy needs

- Community demands for C-19 tasting services greatly vary with resurgence of infection
- Emergency of COVID-19 variants

- In-country GF CCMs & GF Principal Recipient funds flow process vary from country to country, potential risks of delays
- Dynamics arising from other in-country multiple funding or implementation mechanisms, e.g. perceptions of duplication of efforts
Countries across the continent and the globe continue relaxing of cross border travel restrictions.....

Kenya: COVID-19 travel protocols amended as of March 12 /update 39

COVID-19-related travel restrictions in Kenya amended as of March 12.
Unpredictable In-country political unrests and/or security instabilities....
■ Available partners support to procure Ag RDTs e.g GF, to rapidly scale up testing to accelerate testing in community

■ Emergence of new strategic guidance for COVID-19 response;
  ▪ Self testing concept
  ▪ Home-based care management for non-severe cases
  ▪ Community based testing

■ Despite slow rate, Vaccination against COVID-19 is gradually becoming available

■ Existing laboratory systems for other disease programs (HIV, TB, Malaria, etc), transport networks,

■ Data management systems already exist in AU Members states, will only require improvement

■ Growing local continental capacity to conduct genomic sequencing, e.g Omicron detected
IMPLEMENTATION PHASES

Phase 1
- Stakeholders engagements
- Conduct deep dive analysis to identify country context priority needs

Phase 2
- Country specific work plans development based on country identified priorities

Phase 3
- Implementation of workplans,
- M&E
Thank you...