Partnering for lab strengthening and multi-stakeholder approach

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Partners’ Forum
Rio, March 2009
Outline

• Rationale for integrated laboratory systems and framework for laboratory strengthening.

• Partnering for collecting evidence for scaling up and for roll out.

• In country examples of effective partnerships and outcomes.
Strengthening of laboratory systems

• Call on national governments to support laboratory systems as a priority by developing a national laboratory policy within the national health development plan that will guide implementation of a national strategic laboratory plan. Governments should establish a department of laboratory systems within the Ministry of Health.

• Call on national governments with support of their donors and partners in resource-limited settings to develop national strategic laboratory plans that integrate laboratory support for the major diseases of public health importance including HIV, tuberculosis, and malaria.
## Lab strengthening framework

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Objectives</th>
<th>Outcome</th>
<th>Impact</th>
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</thead>
<tbody>
<tr>
<td><strong>Hardware</strong>&lt;br&gt;• Infrastructure&lt;br&gt;• Equipment&lt;br&gt;• Reagents and supplies</td>
<td>Functioning laboratory networks at:&lt;br&gt;• National reference lab&lt;br&gt;• Referral level&lt;br&gt;• District hospital&lt;br&gt;• Peripheral health center</td>
<td>Access to diagnostic services</td>
<td>Improved case management</td>
<td>Decreased morbidity and mortality from treatable diseases</td>
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<tr>
<td><strong>Software</strong>&lt;br&gt;• Human resources&lt;br&gt;• Quality Assurance systems&lt;br&gt;• Management systems</td>
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![Diagram of laboratory layout](image)
Integration of Public Health laboratory services

- Infrastructure upgrade and maintenance
- Linked referral services and timely reporting
- Training and retention – Human Resources
- Logistics and Commodity Management
- Quality Assurance
- Integrated laboratory network
- TB
- HIV
- Malaria
- Opp. Infect.
Challenges of implementing new diagnostics

*Establishing strong partnerships is key*

**Feasibility, contract, development phases**
- Evidence for regulatory approval

**Evaluation phase**
- Evidence for making policy

**Demonstration phase**
- Global Policy

**Access phase**
- Evidence for scaling up

**Global Impact**
- Evidence for measuring impact

Moving from demonstration to access and impact requires that new diagnostic tools are integrated into functional laboratory services.

- Essential instruments, reagents, supplies
- Additional components to ensure quality diagnostic services

Linked referral systems and reporting

Logistics and supplies

Human Resources (Guidelines Technology transfer)

Infrastructure

Quality Assurance
WHO-GLI / GDF / FIND: UNITAID

Narrowing the gap project

• 3 year project
• 16 countries
• Implementation of new diagnostic technologies for TB

<table>
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<tr>
<th>Total Budget</th>
<th>$26 million</th>
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<tbody>
<tr>
<td>Equipment &amp; Diagnostics &amp;</td>
<td>$17 million</td>
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<tr>
<td>Essential Supplies</td>
<td></td>
</tr>
<tr>
<td>Procurement &amp; Installation</td>
<td>$3.0 million</td>
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<tr>
<td>Project Management</td>
<td>$2.9 million</td>
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</table>
Partner roles will provide complementarities

Funding for essential instruments, reagents, supplies

- Policies, norms international standards
- Participate in lab assessments
- Provide long-term on-site monitoring
- Develop indicators and tools for M&E

- Negotiate with partners to ensure lowest prices
- Ensure customer support in place
- Share know-how from product development process
- Provide long-term, on-site mentoring for technology transfer

- Coordinate and manage procurement and delivery
- With FIND, engage industry to ensure affordability and sustained price decreases
- Collaborate with WHO pre-qualification to include diagnostics
Integrating HIV-TB diagnostics platforms: Lesotho

- **Demonstration (Evidence)**: March 2007 LC, April 2008 LPA
- **WHO (Policy)**: June 2007 LC, June 2008 LPA
- **Implementation (Practice)**: November 2007 LC, November 2008 LPA, April 2009 EID for HIV by PCR

**Partners**
- WHO
- PIH
- MOH (Lesotho)
- CDC/ PEPFAR
- CHAI
- UNICEF
- UNITAID

**MDR-TB LPA** (TB (R+H) resistance)

**Early Infant Diagnosis for HIV by PCR** (molecular)

**Molecular laboratory in Maseru**
Collaboration has been established between ASM, FIND, and other partners in Côte d’Ivoire to:

- Upgrade national TB lab to provide quality assured TB culture and DST
- Establish TB culture capacity at selected regional labs
- Optimize EQA of TB microscopy and introduce fluorescence microscopy at TB diagnosis and treatment centers
- Improve specimen referral systems, recording and reporting
ASM/FIND/CDC/WHO Partnership for Strengthening TB Diagnosis in the Côte d’Ivoire in Context of GLI

Renovating the NRL
- PEPFAR, Global Fund, ASM/CDC

Establish formal referral system
- ASM/CDC, PEPFAR

Mentoring and knowledge sharing
- FIND/WHO, ASM/CDC

Developing standard recording and reporting
- ASM/CDC, FIND/WHO

Optimizing EQA
- ASM/CDC, FIND/WHO

Guidance for TB/HIV laboratory integration
- ASM/CDC, FIND/WHO

Introduction of LED Microscopy (cross-platform tool)
- ASM/CDC, FIND/WHO

Others?
Activities carried out through collaborations

WHO

- Development Evaluation Demonstration
- Adoption into global policy
- Collecting evidence for scaling up
  - Uptake in pilot countries
  - Accreditation/franchising
  - Laboratory Support
  - Measuring Impact
- Global Impact

Link to PEPFAR, Global Fund, UNITAID

Scaling up & continued adoption

Others partners: UNITAID, ICAP, ITECH
Integrating HIV-TB diagnostics platforms: Ethiopia, central level

St. Peter’s Hospital, Addis Ababa, central hospital for TB treatment failure cases:

- 2009 January training on MDR-TB LPA
- 2009 March implementation of MDR-TB LPA
- 2009 April re-introducing HIV viral load testing to the refurbished (TB) molecular laboratory.

- UNITAID JHU CDC EHNRI FIND GLI GDF WHO
Integrating HIV-TB diagnostics platforms: Ethiopia, regional level

Implementation of MDR-TB LPA in regional labs with Early Infant Diagnosis (EID) molecular testing capacity for HIV:

- 2009 January training on MDR-TB LPA
- 2009 March-November implementation of MDR-TB LPA.
- CDC EHNRI WHO MOH UNITAID GLI FIND GDF PEPFAR partners.
Thank you