

# The Global Laboratory Initiative of the Stop TB Partnership



Stop TB Partnership

**Thomas M. Shinnick, Ph.D.**  
**Chair, Global Laboratory Initiative**

**1st GDI Meeting**  
**Geneva, Switzerland**  
**May 1, 2014**

National Center for HIV/AIDS, Viral Hepatitis, STD & TB Prevention  
Division of Tuberculosis Elimination



# Lack of Laboratory Services is a Barrier to Reaching Global Targets

- Only ~57% of all new pulmonary TB cases were bacteriologically confirmed in 2012
- AFB smear-based testing is inadequate in high HIV settings
- Only ~19% of estimated 450,000 MDR TB cases were laboratory confirmed
- Many XDR TB cases are not detected due to the lack of second-line DST

# The Way Forward in Lab Strengthening

- Promote the need to strengthen labs
- Support the Global Laboratory Initiative
- Coordinate with all partners
- Pursue endorsement and transfer of new technology and policy making
- Promote research into new diagnostics
- Favor integrated technology and broad laboratory network development

# Evolution of GLI

- **Beginnings in the WHO Supranational Reference Laboratory Network**
- **Grew into the Subcommittee on Laboratory Capacity Strengthening of the DOTS Expansion Work Group**
- **GLI endorsed by STP-CB in October 2007**
- **Elevated to a working group in June 2008**

# Stop TB Partnership Workgroups

- Implementation Workgroups
  - DOTS Expansion
  - TB/HIV
  - Global Drug Resistant TB Initiative
  - **Global Laboratory Initiative**
- Research Workgroups
  - New Diagnostics
  - New TB Drugs
  - New TB Vaccines

# GLI Structure & Governance

WHO Global  
TB  
Programme

Stop TB Partnership



GLI Secretariat

GLI Core Group

Evaluates, approves, governs projects; Advises GLI Secretariat

GLI Partners Committee

Advises and approves strategic agenda of GLI; Monitors project progress

Subgroup

TB Supranational Reference Laboratory Network

Technical WG



Laboratory strengthening

Human resource development strategy

Laboratory accreditation

Other

Priority projects and activities  
Time limited  
Partner approach

## **Role of WHO in GLI**

- **Provide the GLI Secretariat**
- **Provide strategic global guidance and evidence for policy**
- **Facilitate integrated country laboratory strengthening**
- **Provide monitoring and evaluation support and global analysis on laboratory strengthening progress**
- **Promote advocacy, resource mapping, resource mobilisation**

## GLI Core Group

- Chair - Thomas Shinnick (U.S. CDC)
- Vice-Chair - Rumina Hasan (Pakistan)
- Secretariat – Chris Gilpin (WHO)
- Armand Van Deun (Union)
- Heidi Albert (FIND)
- Heather Alexander (CDC, PEPFAR)
- Levan Gagnidze (IOM)
- Amy Piatek (USAID)
- Paul Klatser (KIT)
- Sara Eyangoh (NRL Cameroun)
- Richard Lumb (SRL Adelaide)
- Maarten van Cleef (KNCV)
- Tsehaynesh Messele (ASLM)
- Marie Alice Telles (Brazil)
- Alaine Nyaruhirira (MSH)
- Sabine Ruesch-Gerdes (Chair SRLN)
- Joshua Obasanya (NTP Manager, Nigeria)
- Rick O'Brien (past Chair)
- Civil society – vacant
- WG Liaisons

# GLI Mission

To serve as a platform of coordination and communication for TB lab strengthening, in the areas of:

- Global policy guidance
- Laboratory capacity development
- Interface with other laboratory networks, enabling integration
- Standardised lab quality assurance
- Coordination of technical assistance
- Effective knowledge sharing
- Advocacy and resource mobilisation

# GLI Strategic Priorities

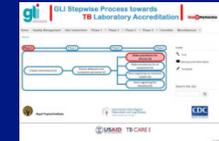
- Establish GLI partnership projects
- Develop templates for country-specific roadmaps for laboratory strengthening
- Develop human resource strategies
- Develop appropriate and adequate laboratory biosafety standards
- Improve the quality of TB Laboratory services
- Move new diagnostics into countries

## **GLI 2013–2014 Priority Activities**

- **Develop tools for accreditation of TB Labs and Networks**
- **Review existing GLI Tools, guidance and develop additional tools**
- **National TB Laboratory Strategic Plans**
- **Strengthen the SRLN; expand ability to provide coordinated technical assistance**
- **Human resource development**
- **Integration of TB Laboratory Services and Public Health Laboratory Networks**

# 2013 Achievements – Accreditation

- Version 2.0 of the GLI Stepwise Process Towards TB Laboratory Accreditation  
[www.gliquality.org](http://www.gliquality.org)



- Harmonization of GLI tool with SLIPTA and SLMTA



- Basis for WHO Laboratory Quality Stepwise Implementation (LQSI) tool

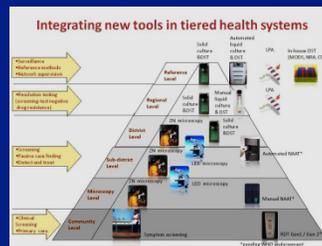
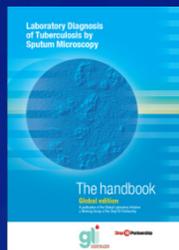


- Standards and guidelines for accrediting AFB-smear microscopy networks



# GLI Guidance and Tools

- Roadmap for TB Lab Strengthening
- Tools for TB Laboratories – ‘GLI Tool Box’
- Roadmap for accrediting TB Labs and networks
- Roadmap for Incorporating Molecular Diagnostic Tests into TB Control
- Specifications for ventilated workstations
- Handbook for TB Laboratory Strategic Planning
- AFB Smear Microscopy Manual



<http://www.stoptb.org/wg/gli/documents.asp>



## **GLI Achievements - Xpert MTB/RIF**

- **Contributed to WHO policies and guidance**
- **Provided information and resources on roll-out**
  - **As of 31 Dec 2013: 2,021 instruments, 10,561 modules, 5,219,960 cartridges, 98 countries**
  - **Xpert training package**
  - **Verification panels and EQA**
- **Provided TA for Expand-TB, TB-Xpert projects**
- **Promoted strengthening of the entire diagnostic cascade and scale-up of PMDT**
- **Xpert rollout contributed to increase in the numbers of laboratory confirmed rif-resistant cases from ~5% in 2010 to ~21% in 2012**

## **Proposed GLI priorities for 2014-2015**

- **Assist countries develop laboratory component of National TB Strategic Plans**
- **Promote use of existing GLI tools**
- **Promote integrated use of the GLI accreditation tool with other tools for improving lab quality**
- **Finalize development of new GLI tools**
  - **TB Laboratory consultant manual**
  - **Xpert MTB/RIF training package**
  - **Updated SOPs, performance indicators**
  - **Guidance on engineering requirements for different risk level TB laboratories**
- **Develop a strategy to improve human resources for laboratory management**

# Thank You

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