

The Global Laboratory Initiative of the 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)
- Heather Alexander (CDC, PEPFAR)
- Amy Piatek (USAID)
- Sara Eyangoh (NRL Cameroun)
- Maarten van Cleef (KNCV)
- Marie Alice Telles (Brazil)
- Sabine Ruesch-Gerdes (Chair SRLN)
- Rick O'Brien (past Chair)
- WG Liaisons
- Heidi Albert (FIND)
- Levan Gagnidze (IOM)
- Paul Klatser (KIT)
- Richard Lumb (SRL Adelaide)
- Tsehaynesh Messele (ASLM)
- Alaine Nyaruhirira (MSH)
- Joshua Obasanya (NTP Manager, Nigeria)
- Civil society – vacant

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

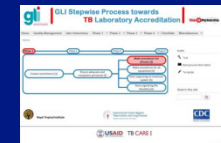
GLI 2013–2014 Priority Activities

- **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



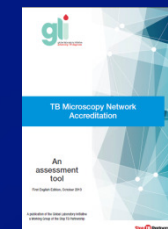
- Harmonization of GLI tool with SLIPTA and SLMTA



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

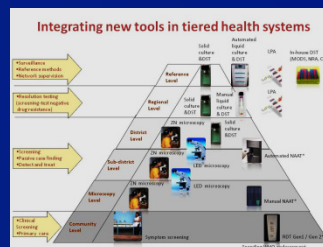
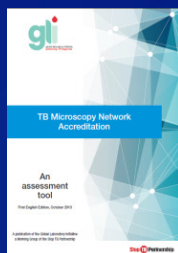
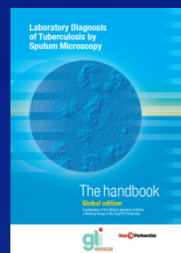


- Standards and guidelines for accrediting AFB-smear microscopy networks



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



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

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

