The external quality assurance dashboard of the Global Laboratory Initiative

Kristin Kremer, PhD
Team Lead Diagnostics, KNCV Tuberculosis Foundation, The Netherlands
Global Laboratory Initiative (GLI) Core Group member

The Global Laboratory Initiative (GLI) at a glance

- One of the eight Working Groups of the Stop TB Partnership

- Secretariat within WHO Global TB Programme

- Serves as an independent, technical expert advisory group to WHO, the Stop TB Partnership, development and funding agencies, and countries

Core Group

global laboratory initiative
advancing TB diagnosis

GLI Core Group represents constituencies of stakeholders and/or institutions involved in global and country-level laboratory strengthening

Marguerite Massinga Loembé
Chair
Senior Science Manager
Independent Consultant - Health systems strengthening
Libreville, Gabon

Sushil Pandey **Vice-Chair**
Chief Scientist,
Supranational Reference Laboratory Brisbane
Queensland Mycobacterium Reference Laboratory,
Pathology Queensland, Queensland Health,
Brisbane, Australia

Mercy Annpoorani
Director and Managing Trustee,
Blossom Trust,
Virudhunagar, India
Constituency: Civil Society representative

Henry Byabajungu
Technical Supervisor,
Supranational Reference Laboratory Kampala
National TB Reference Laboratory
Kampala, Uganda
Constituency: Technical agencies and implementation partners involved in global and country-level laboratory strengthening, Supranational Reference Laboratory
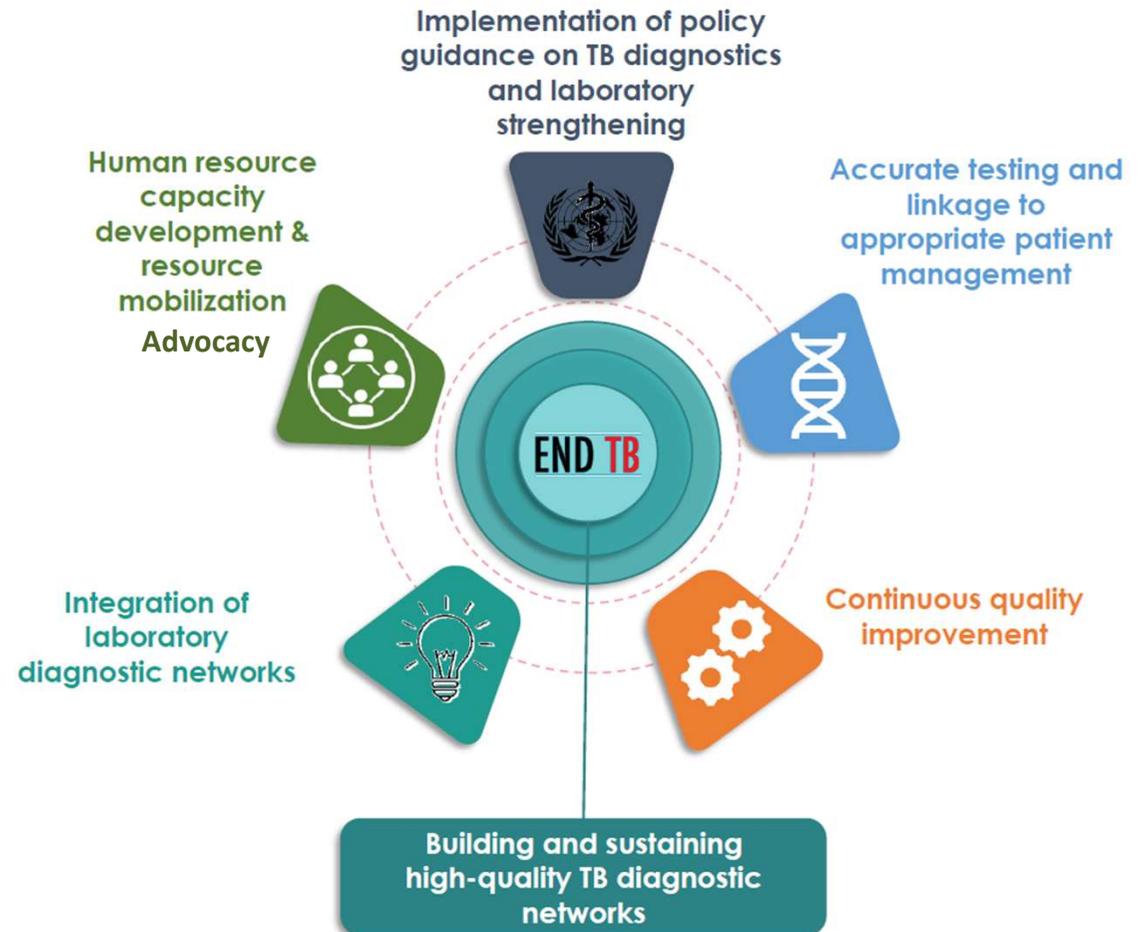
Andrea Cabibbe
Research Associate
Supranational Reference Laboratory Milan
San Raffaele Scientific Institute
Milano, Italy
Consituency: Technical agencies and implementation partners involved in global and country-level laboratory strengthening, Supranational Reference Laboratory.

Valerie Flore Dokeng Donfack
Head of Mycobacteriology Unit,
Centre Pasteur du Cameroun (CPC)
Yaounde, Cameroon
Constituency: High burden country, National TB Programme

Alex Durena
TB Diagnostics Technical Advisor

Constituency: TB Diagnostics Technical Advisor

Pamela Hepple
Regional Laboratory Coordinator
IOM Regional Office for Asia and the Pacific
Bangkok, Thailand
Constituency: Technical partners involved in global and country-level laboratory

Kristin Kremer
Senior Laboratory Scientist
KNCV Tuberculosis Foundation
The Hague, The Netherlands
Constituency: Technical partners involved in global and country-level laboratory strengthening

Leen Rigouts
Senior Scientific Expert,
Institute of Tropical Medicine Reference Laboratory
Antwerp, Belgium
Constituency: Technical agencies and implementation partners involved in global and country-level laboratory strengthening, Supranational Reference Laboratory.

Léon Sawadogo
Laboratory manager,
Centre National de Lutte Antituberculeuse (CNLAT)
Ouagadougou, Burkina Faso
Constituency: High burden country; National TB Programme

Tetsuhiro Sugamoto
Laboratory Scientist
Research Institute of Tuberculosis JATA(Japan Anti-Tuberculosis Association)
Tokyo, Japan
Constituency: Technical agencies; Supranational Reference Laboratories

Karchung Tshering
Chief Laboratory Officer,Coordinator National Reference Centre for Mycobacteria Cartago, Costa Rica National TB Reference Laboratory,
Thimphu, Bhutan
Constituency: High burden country, National TB Programme

Sarah Jbara Chakhtoura
Coordinator
National Reference Centre for Mycobacteria
Cartago, Costa Rica
Constituency: National TB Programme

Mission

The mission of the GLI is to serve as a **collaborative platform** for the development and uptake of practical guidance and tools for building and sustaining high-quality TB diagnostic networks

GLI focus areas: framework for annual strategic priorities

Implementation of policy guidance on TB diagnostics and laboratory strengthening

Accurate testing and linkage to appropriate patient management

Human resource capacity development & resource mobilization
Advocacy

Continuous quality improvement

Integration of laboratory diagnostic networks

END TB

Building and sustaining high-quality TB diagnostic networks

Human resource capacity development

- Organization of /contribution to symposia
- Organization of /contribution to webinars

External quality assurance (EQA) dashboard

Need for the EQA dashboard

- WHO has endorsed many different tests for TB, especially in the last 15 years new diagnostics for TB have become available
- Availability of EQA programs and proficiency testing (PT) panels has often lagged, been geographically limited, or been unknown to testing programs

- GLI landscape review in early 2024 to collate available EQA/PT programs for different TB tests
- Design of the EQA dashboard; enables laboratory managers to efficiently locate, evaluate, and engage with EQA and PT resource providers to help meet their local quality assurance needs

Stop TB Partnership hosted by **UNOPS**

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GLI EQA DASHBOARD

| Category ▾ | PT scheme name ▾ | Provider Name ▾ | Reset filters |

ID ❶ ▲	PT scheme name ❷ ▲	Provider Name	Name of PT Program / Panel	Type of PT Sample	PT Provider website link
1	Phenotypic DST	SA Pathology SRL Adelaide...///Supranational Ref...	DST EQA	Culture Isolate	N/A
2	Phenotypic DST	EPHI NTRL ET-EQAS...///Ethiopian Public Health I...	TB Culture & ID Test	Liquid Artificial Sputum spiked with ATCC r...	https://ephi.gov.et/
3	Phenotypic DST	NHLS QA Division.../// National Health Laboratory...	NHLS PTS TB culture and pDST	Liquid and Culture isolates MGIT liquid and...	https://www.nhls.ac.za/qu...

Category ▾	PT scheme name ▾	Provider Name ▾	Reset filters

ID ❶ ▲	PT scheme name ❷ ▲	Provider Name	Name of PT Program / Panel	Type of PT Sample	PT Provider website link
15	LPA MTBDRplus	SmartSpot...///SmartSpot Quality	SmartSpot Quality MTBDRplus EQA ...	Dried Culture Spot (DCS) & Digital LPA Stri...	https://www.smartspotq.c...
16	LPA MTBDRplus	Uganda NTRL/SRL PTS...///Uganda National Tub...	SRL Uganda LPA DTS Proficiency Te...	Dried Tube Specimen (DTS)	www.ntrl.or.ug
17	LPA MTBDRplus	SRL Antwerp, Mycobacteriology Unit...///Supranat...	WHO-SRL-EQA	Aliquots of viable bacilli in 7H9 broth / Aliq...	https://www.itg.be/en/res...
18	LPA MTBDRplus	INSTAND e.V.	Mycobacteriology 06 – Molecular Dr...	Artificial sputum	https://www.instand-ev.de/
19	LPA MTBDRsl	SmartSpot...///SmartSpot Quality	SmartSpot Quality MTBDRsl EQA Pr...	Dried Culture Spot (DCS) & Digital LPA Stri...	https://www.smartspotq.c...
20	LPA MTBDRsl	Uganda NTRL/SRL PTS...///Uganda National Tub...	SRL Uganda LPA DTS Proficiency Te...	Dried Tube Specimen (DTS)	www.ntrl.or.ug
21	LPA MTBDRsl	SRL Antwerp, Mycobacteriology Unit...///Supranat...	WHO-SRL-EQA	Aliquots of viable bacilli in 7H9 broth / Aliq...	https://www.itg.be/en/res...
22	LPA MTBDRsl	INSTAND e.V.	Mycobacteriology 06 – Molecular Dr...	Spiked artificial sputum	https://www.instand-ev.de/
23	LAMP	SmartSpot...///SmartSpot Quality	SmartSpot Quality MTBC LAMP EQA...	Dried Culture Spot (DCS) containing either ...	https://www.smartspotq.c...
24	LAMP	INSTAND e.V.	Mycobacteriology 04 NAT 424	Spiked artificial sputum	https://www.instand-ev.de/
25	Truepat	SmartSpot...///SmartSpot Quality	SmartSpot Quality Truepat MTB & M...	Dried Culture Spot (DCS) containing either...	https://www.smartspotq.c...

More details

Filter options by test category, proficiency test scheme and provider

✓ Category	Record Count
🔍 Type to search	
✓ NAAT	35
✓ Microscopy	7
✓ Culture	7
✓ Sequencing	4

4 test categories

✓ PT scheme name	Providers count
🔍 Type to search	**10 tests**
✓ Xpert MTB XDR	4
✓ Xpert MTB RIF Ultra	9
✓ Xpert MTB RIF	7
✓ Truenat	4
✓ Sequencing	5
✓ Phenotypic DST	7
✓ Microscopy	7
✓ LPA MTBDRsl	4
✓ LPA MTBDRplus	4
✓ LAMP	2

✓ Provider Name	Programs count
🔍 Type to search	**13 providers**
✓ Uganda NTRL/SRL PTS.../...	6
✓ US CDC ILB.../US Center...	2
✓ SmartSpot.../SmartSpot ...	8
✓ SRL Cotonou.../Supranat...	2
✓ SRL Antwerp, Mycobacteri...	7
✓ SA Pathology SRL Adelaid...	2
✓ Queensland Mycobacteriu...	1
✓ NTRL Kenya.../National ...	4
✓ NHLS QA Division.../// Nat...	2
✓ Longhorn.../Longhorn Va...	4
✓ IQLS.../Integrated Qualit...	2
✓ INSTAND e V	10

The "simplified view" option gives details for each proficiency test (PT) product

PT scheme
- Category
- PT scheme name
- Number of cycles per year
- Method for processing PT
- Info on MTBC in samples; viability, amount
- Shelf life
- Delivery time

PT provider
- Provider name
- Website link
- Name of all PT panels provided
- ISO accreditation

Reporting & feedback
- Software or platform used for data analysis
- Result turn-around time
- Availability of description of corrective actions in case of deficiencies
- Technical assistance for results interpretation & corrective actions

Example of the simplified view for proficiency testing for phenotypic DST by Instand

Simplified view

ID ▲	7
Category	Culture
PT scheme name	Phenotypic DST
Provider Name	INSTAND e.V.
PT Provider website link	https://www.instand-ev.de/
Name of all PT Panels provided	Not Provided
Is the provider ISO accredited for the supply of this PT Scheme?	Yes ISO/IEC 17043:2010
Name of PT Program / Panel	Mycobacteriology 05 Drug susceptibility test RV 425
Number of PT Cycles Per Year?	2
Method for processing PT	Process like Clinical Sample
Do the samples in the panel contain viable M. tuberculosis bacteria?	Yes
Approximate number of M. tuberculosis bacteria included in a sample?	Not measured
Product total shelf life according to Storage Conditions printed on packaging	Guaranteed for the duration of the PT
Name of the software or platform used for data analysis (Explain the process) .	INSTAND software program
PT Result Turn-around Time (TAT)?	7 weeks
Does the data analysis of EQA PT use a digital platform - Yes/No (Explanation provided in Tooltip)	Yes INSTAND software program analyses the results. The scoring is as follows: 5 points are given for the correct result, 0 points are given for any false positives or false negatives, Certificates are issued if participant reach 80% of the maximum points.
In case of deficiencies, are possible corrective actions described?	Yes… There is a form where problems are reported by Participants to INSTAND and INSTAND will provide directed assistance
Is technical assistance provided for interpreting results, developing corrective actions and/or implementing corrective actions?	Yes… We could contact participants and discuss there procedures

Available proficiency test schemes

- Microscopy (n=7)
- Phenotypic drug susceptibility testing (pDST) (n=7)
- Line probe assay (LPA) – MTBDR*plus* (n=4)
- Line probe assay – MTBDR*sl* (n=4)
- Loop-mediated isothermal amplification (LAMP) (n=2)
- TrueNat (n=4)
- Xpert MTB/RIF (n=7)
- Xpert MTB/RIF Ultra (n=9)
- Xpert XDR (n=4)
- Sequencing (n=5)

NEWSFLASH

WHO DEPARTMENT FOR HIV, TUBERCULOSIS, HEPATITIS & SEXUALLY TRANSMITTED INFECTIONS

HEALTH FOR ALL

Ending the epidemics of HIV, Tuberculosis, Hepatitis & Sexually Transmitted Infections

World Health Organization

WHO recommends near point-of-care tests, tongue swabs, and sputum pooling for TB diagnosis

26 February 2026 | Geneva The World Health Organization (WHO) is issuing, for the first time, recommendations on new near-point-of-care (NPOC) molecular tests for the diagnosis of tuberculosis (TB); easy-to-collect tongue swab samples to simplify and expand access to testing; and a cost-saving sputum pooling strategy to increase testing efficiency for TB and rifampicin-resistant TB.

Following the recent WHO recommendations for near-POC tests proficiency testing schemes should be developed and rolled out

Live demo & questions

A similar resource for online training & education

Filter options by training/education subject, provider and language

Most are available in English only and take 1 hour (0,5 hour – 2 days)

Category	NO.
10 subjects	
✓ TB screening and detection	1
✓ TB screening	1
✓ TB prevention	2
✓ TB detection	15
✓ TB Public Private Mix (TBPP...	1
✓ Sample handling and transp...	3
✓ LQMS	10
✓ GCLP	1
✓ Diagnostic Network	2
✓ Biosafety	8

Provider	Record Count
11 providers	
✓ APHL Learning Centre	11
✓ OneLab REACH_CDC	10
✓ Global Laboratory Initiativ...	6
✓ Exoexcellence Consultant...	4
✓ WHO Knowledge sharing ...	3
✓ WHO Academy	2
✓ Lab root: Presented at: A ...	2
✓ TB-PPM Learning network	1
✓ WHO	1
✓ Mayo Clinic: School of Co...	1
✓ Union	1

| Language	COURSE NAME
7 languages	
✓ English, Russian, Georgian	1
✓ English, Russian	1
✓ English, French, Spanish, Ru...	3
✓ English, French, Spanish, Ru...	1
✓ English, French, Spanish	2
✓ English, French	1
✓ English	35

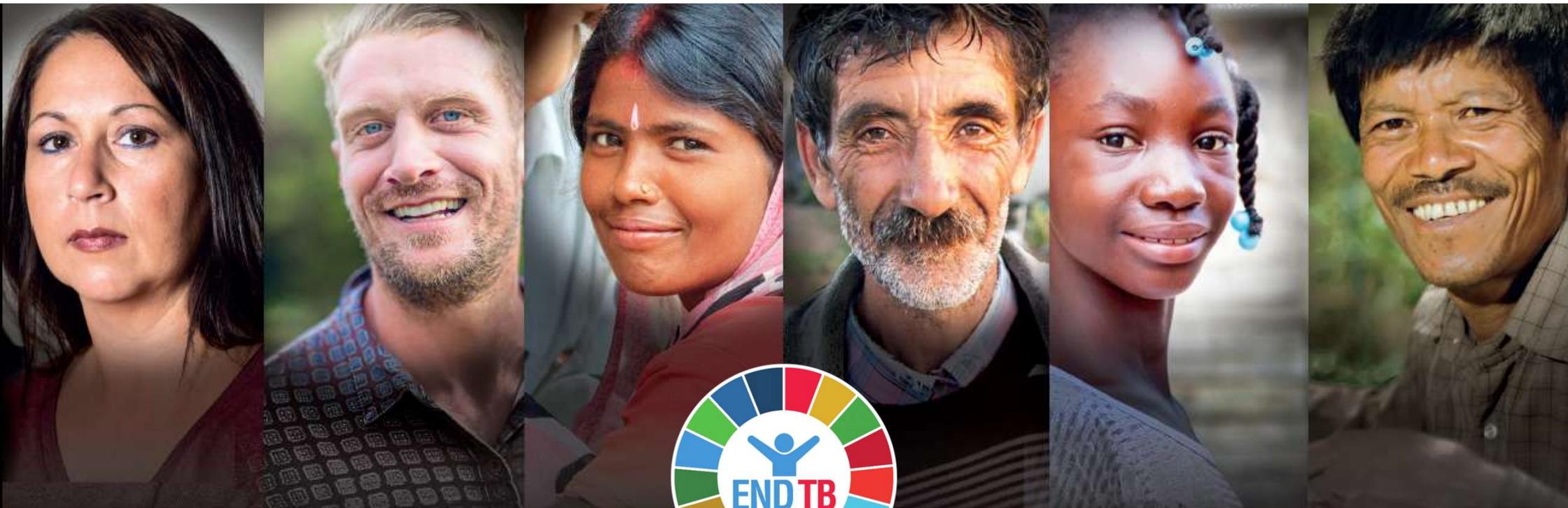# Living resources

GLI EQA Dashboard

Online resources for TB laboratory training and continuous education

- EQA dashboard
- Online resources for TB laboratory training and continuous education
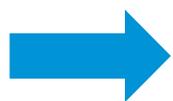
Please contact the GLI secretariat if you would like to contribute to the dashboards: gli_secretariat@who.int

END TB

gli Resources

global laboratory initiative
advancing TB diagnosis

Website

https://www.stoptb.org/stop-tb-working-groups/global-laboratory-initiative-gli

GLI WG - Team members

The Team

GLI WG- Mission

GLI WG- News

GLI WG- Guidance and Tools

GLI WG- Training Packages

GLI WG- Standard Operating Procedures (SOPs)

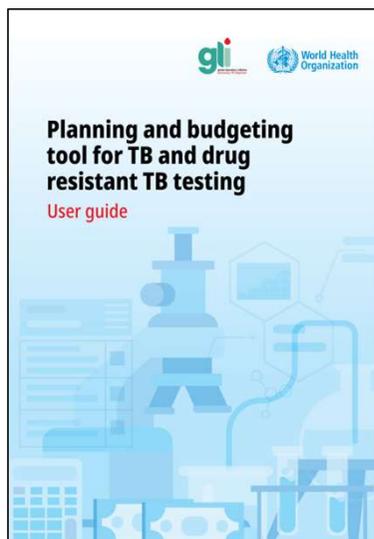**GLI WG- Partner Links**
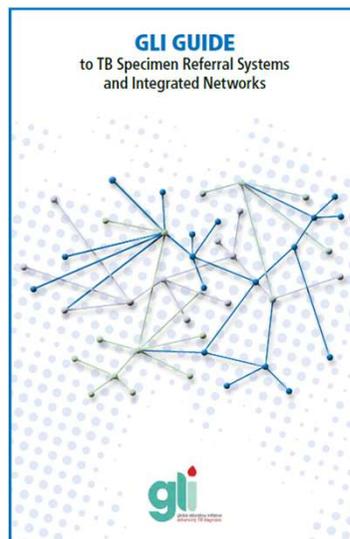

GLI WG- Meetings & Events

Guidance and tools

- GLI laboratory toolbox
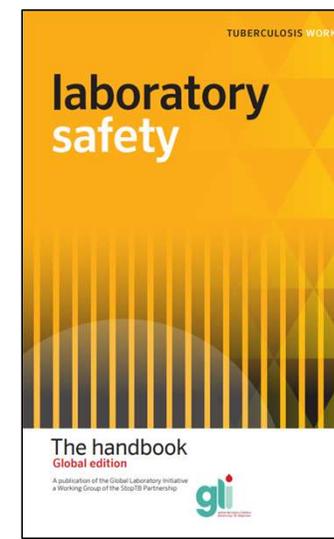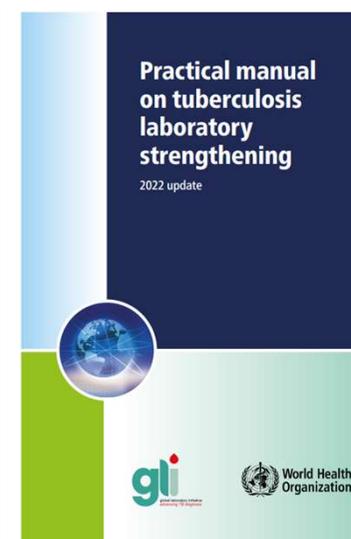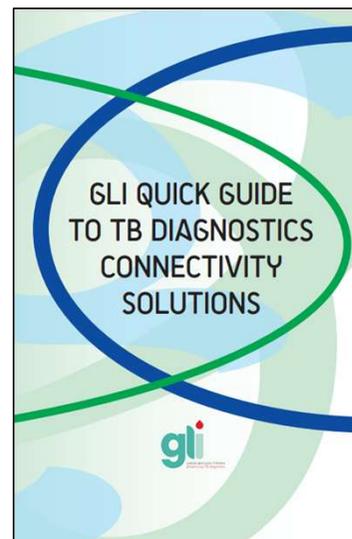- GLI practical handbook for national TB lab. strategic plan development

GLI WG- Guidance and Tools
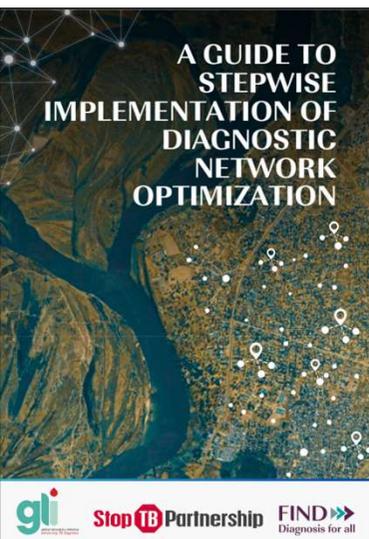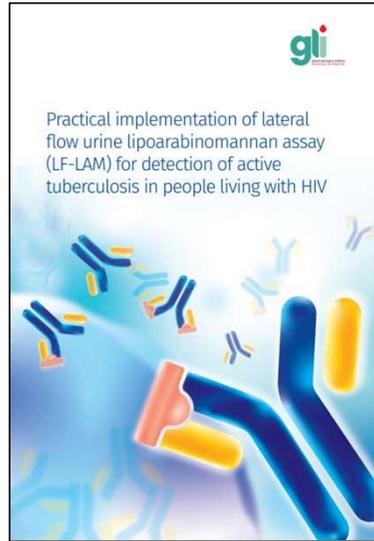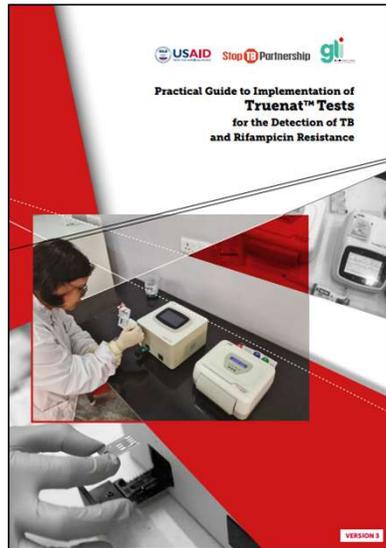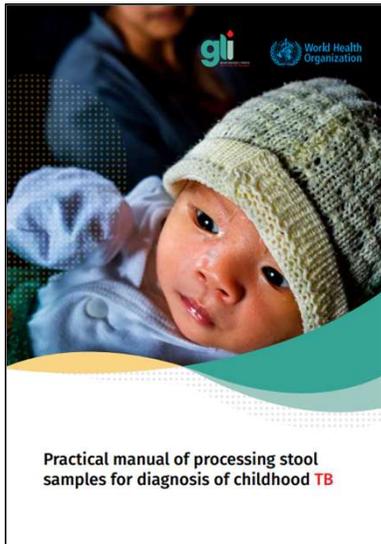

+ video
+ slide set

+ excel tool

Toolkit: guidance,
assessment tools, training
materials, data collection
and M&E tools

Practical manuals & information sheets

Practical manual of processing stool samples for diagnosis of childhood TB

Practical Guide to Implementation of **Truenat™ Tests** for the Detection of TB and Rifampicin Resistance

+ comprehensive training modules

Practical implementation of lateral flow urine lipoarabinomannan assay (LF-LAM) for detection of active tuberculosis in people living with HIV
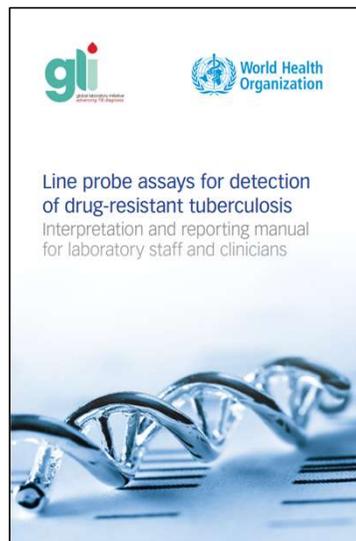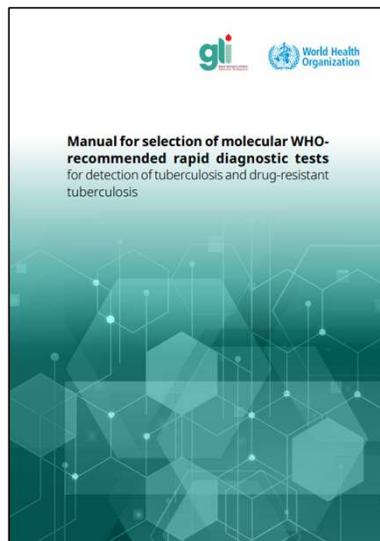
- Information sheets with practical considerations for implementation of low complexity, moderate complexity and high complexity reverse hybridization NAATs
- GLI Planning for country transition to Xpert MTB/RIF Ultra cartridges
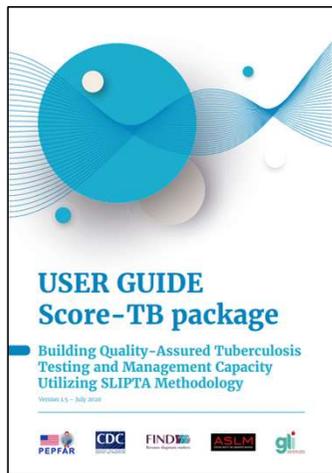- GLI handbook laboratory diagnosis of TB by sputum microscopy

Manuals and tools for DR-TB

Manual for selection of molecular WHO-recommended rapid diagnostic tests for detection of tuberculosis and drug-resistant tuberculosis

Line probe assays for detection of drug-resistant tuberculosis
Interpretation and reporting manual for laboratory staff and clinicians

- FAQs on genomic sequencing for DR-TB
- Information sheets on various tNGS tests

Quality assurance tools

USER GUIDE Score-TB package
Building Quality-Assured Tuberculosis Testing and Management Capacity Utilizing SLIPTA Methodology
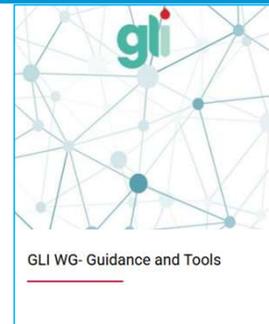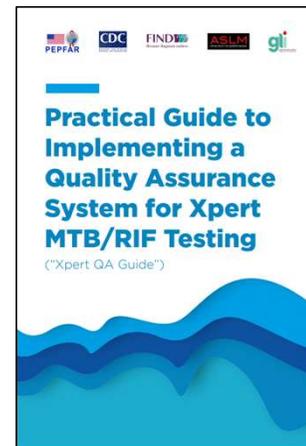
+ XLS checklists
To assess the quality of test implementation vs international quality standards

Stepwise process towards TB laboratory accreditation

QA package for TB LF-LAM testing: presentations, training/competency checklists, M&E tools

Practical Guide to Implementing a Quality Assurance System for Xpert MTB/RIF Testing ("Xpert QA Guide")

+ quick guide
+ supporting documents
+ checklists
+ SOPs & more

TB Microscopy Network Accreditation
An assessment tool

TB microscopy network accreditation assessment tool

Training packages

GLI WG- Training Packages

- Programme modules for diagnostic network strengthening
- Diagnostic network strengthening and Xpert MTB/RIF (Ultra) implementation
- Xpert MTB/RIF 🇫🇷 🇵🇹 🇷🇺
- Culture in solid and liquid media
- DST by phenotypic and molecular methods

Guidance on preparation and imple-mentation of TB laboratory SOPs

GLI WG- Standard Operating Procedures (SOPs)

- Procedures for developing and implementing country-specific SOPs
- Generic TB laboratory SOPs:
    - Safety
    - Use and maintenance of equipment
    - Preparation of reagents
    - Procedures

Questions?

Acknowledgements

GLI Core Group Members
Alaine Nyaruhirira