TB SLMTA Update
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Need for a strong TB diagnostic network

- The WHO End TB Strategy calls for:
  - Objective 1: Increase access to rapid and accurate detection of TB
  - Objective 2: Reach universal access to DST
  - Objective 3: Strengthen the quality of laboratory services

- A prerequisite for any national TB programme to reach these objectives is a quality-assured laboratory network equipped with rapid diagnostics

- NTRLs are the cornerstone of a strong TB diagnostic network and provide specialized testing, supervision of entire TB lab network, and perform testing for drug resistance and TB prevalence surveys.
Implementing quality management systems

- Every laboratory conducting culture, LPA or phenotypic DST should be implementing a quality management system that aims to achieve accreditation according to international standards*

- NTRLs and regional referral labs

- National laboratory strategic plans should articulate the goals for TB diagnostic network quality improvement

*Target: 50% of labs by 2020, 100% of labs by 2025.

WHO Framework of indicators and targets for laboratory strengthening under the End TB Strategy.
Has a formal quality management system towards achieving laboratory accreditation been implemented at the National Reference Laboratory?

The status of laboratory quality systems at NTRLs


http://www.who.int/tb/country/data/download/en/
Why TB SLMTA?

- Demonstrated impact of SLMTA approach
- Identified need for focus on TB labs
- Critical areas for QMS are different in TB labs e.g. biosafety, QA
- Limited participation of TB labs
- Specialized TB mentoring to ensure success
- GLI Online tool available but no training and mentoring approach
Programme overview

* Training block in facility-based model
TB SLMTA Implementation

37 labs

10 countries

- Belarus (2016-): Facility-based 1 TB laboratory
- Armenia (2016-): Facility-based 1 TB laboratory
- Azerbaijan (2016-): Facility-based 1 TB laboratory
- Moldova (2016-): Facility-based 1 TB laboratory
- Cameroon (2013-): Facility-based 1 TB laboratory
- Dominican Republic (2014-): Workshop 9 TB laboratories
- Tanzania (2015-): Workshop 8 TB laboratories
- Ethiopia (2014-): Workshop 8 TB laboratories
- Lesotho (2014-): Workshop 3 TB laboratories
- India (proposed 2017)
- Vietnam (2014-): Workshop 6 TB laboratories
Comparing baseline and exit assessment star rating

- 37 labs in 10 countries enrolled
- 33 labs in 6 countries completed TB SLMTA
- Increase in average assessment score from 50% at baseline to 66% at exit (+16%)
- 34% reduction in labs scoring 0%
- 27% increase in labs scoring 3 or more stars
Measurable improvement in all checklist sections
Success factors

- Motivated lab staff with sufficient time to focus on implementing QMS
- Strong support of senior management
- Mentoring is a critical component; mentors must have knowledge of implementing QMS and be trained in effective mentoring skills
- Trained assessors with TB lab expertise
- Integration with country SLMTA and other QMS activities for sustained support
- Adequate planning and budgeting: reaching accreditation is a multi-year process; careful planning and alignment of partners and funding will help to reach the end goal
- Although adequate resources are important to reach accreditation, many labs have made substantial quality improvements through hard work and dedication even with limited resources.
“I worked in the TB Laboratory at National TB Reference Laboratory, Lesotho as Laboratory Technologist since 2007 and in the TB Culture section since 2008. I was diagnosed with TB in January 2015 through TB screening of all National TB Reference Laboratory (NTRL) staff. The NTRL was participating in TB SLMTA and the TB Laboratory Quality Management Towards Accreditation Harmonized Checklist, that has a question on whether TB screening of laboratory staff was conducted, was being used to audit the laboratory.

The NTRL Biosafety guidelines also had a requirement that laboratory staff be screened for TB. Before I was diagnosed I did not have TB symptoms. Although I knew that health care workers are at risk of TB infection more than anyone else as they are exposed to TB over long periods of time in the clinic and laboratory setting, my diagnosis with TB came as a shock to me and my colleagues. This emphasizes the need for laboratories to plan for screening of their staff and to screen the laboratory as scheduled.

I also recommend that TB screening be conducted in 6 months as sputum sample is easy to collect. To other countries, TB laboratories and health care workers who have not started medical screening, I say act now. Prevention is better than cure. Treatment has also side effects especially during intensive phase.”

Mr. Lebohang Marai, medical technologist, CTRL
Resources

- 3 Master Trainers and 2 candidate Master Trainers available (based in Caribbean, Africa and SE Asia)

- 59 certified trainers, half of whom are actively implementing TB SLMTA

- TB SLMTA-trained staff at 3 WHO Supranational TB Reference Laboratories

- TB lab specialists with auditing training and experience

- Training materials in English, Spanish, Russian, Vietnamese

- Online or face-to-face training in TB lab biosafety and Introduction to quality management systems are available to complement TB SLMTA curriculum
Lessons learned and next steps

- Substantial quality improvement is possible in relatively short time frame from low baseline

- With well-targeted investment, accreditation of TB labs is an achievable goal
  - Support needed all the way to accreditation
  - Partnerships to expand support to other high burden countries
  - Strengthen and better coordinate mentoring and country level support
  - Focus on measuring impact of quality improvement on patient care – needed for government and donor advocacy

- With or without the specific target of accreditation, quality improvement of diagnostic services is the goal
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- CDC country office staff: Dominican Republic, Lesotho, Viet Nam, Tanzania
- Heather Alexander, Katy Yao, CDC
For more information on TB lab strengthening

GLI-Africa and FIND symposium. Evolving partnerships for TB: diagnostic network strengthening in Africa. Mon 5 Dec, 8.00-10.00, Room 1.61-1.62.


Strengthening quality management systems in Africa (Poster), Thurs 8 Dec, 12.30-13.30, East/West Ballroom.

Contribution of online training to safety training in TB laboratories. Thurs 8 Dec, Room 2.6.

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