



# Strengthening TB laboratory management toward accreditation (TB SLMTA) programme: customizing SLMTA for TB labs

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SLMTA Workshop, ASLM 2014  
29<sup>th</sup> November 2014



## Three-pronged approach to diagnostics uptake

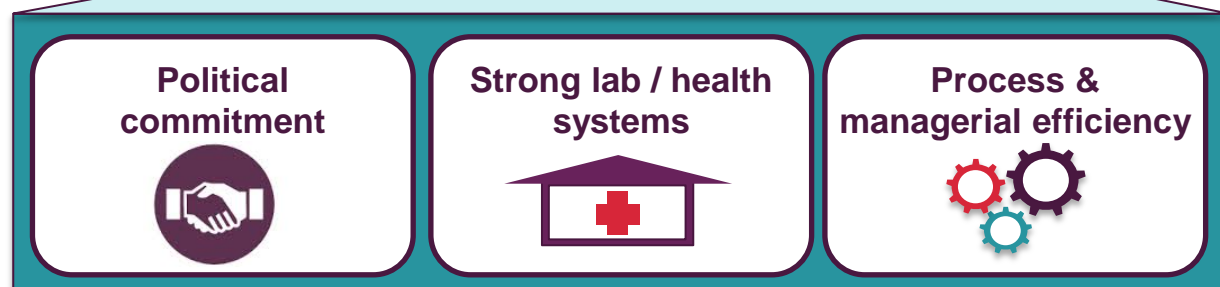
**1** Ensure holistic solutions tailored to specific country needs are in place



**2** Support development of country implementation plans for solutions



**3** Strengthen country capabilities to implement and capture benefit of solutions





# Why TB SLMTA?

- Accreditation of TB laboratories is a goal of Global Plan to Stop TB 2011 - 2015
- GLI Stepwise Process Towards TB Laboratory Accreditation
  - Online tool but no training and mentoring approach
- TB laboratories have not been well represented and integrated into SLMTA programmes in many countries

THE GLOBAL PLAN TO STOP TB 2011–2015

TABLE 1 SUMMARY OF MAIN INDICATORS, BASELINES AND TARGETS IN THE IMPLEMENTATION COMPONENT OF THE GLOBAL PLAN TO STOP TB 2011–2015

PLAN COMPONENT AND INDICATORS	BASELINE (2009)	TARGET (2015)
<b>DOTS/Laboratory strengthening</b>		
Number of cases diagnosed, notified and treated according to the DOTS approach (per year)	5.8 million	6.9 million
Treatment success rate (in annual cohort)	86%	90%
Number of countries with ≥1 laboratory with sputum smear microscopy services per 100 000 population	≥75	149
Percentage of laboratories providing sputum smear microscopy services that are using LED microscopes for diagnosis of smear-positive TB	<1%	20%
<b>Drug-resistant TB/Laboratory strengthening</b>		
Percentage of previously treated TB patients tested for MDR-TB	7%	100%
Percentage of new TB patients tested for MDR-TB	7%	20%
Number of countries among the 22 HBCs and 27 high MDR-TB burden countries with ≥1 culture laboratory per 5 million population <sup>14</sup>	18–21	36
Percentage of confirmed cases of MDR-TB enrolled on treatment according to international guidelines	36%	100%
Number of confirmed cases of MDR-TB enrolled on treatment according to international guidelines	11 000	~270 000
Treatment success rate among confirmed cases of MDR-TB	60%	≥75%
<b>TB/HIV/Laboratory strengthening</b>		
Percentage of acid-fast bacilli (AFB) smear-negative, newly notified TB cases screened using culture and/or molecular-based test	<1%	≥50%
Percentage of TB patients tested for HIV	26%	100%
Percentage of HIV-positive TB patients treated with CPT	75%	100%
Percentage of HIV-positive TB patients treated with ART	37%	100%
Percentage of people living with HIV attending HIV care services who were screened for TB at their last visit	~25%	100%
Percentage of people living with HIV attending HIV care services who were enrolled on IPT, among those eligible	<1%	100%
<b>Laboratory strengthening (additional to those above)</b>		
Percentage of national reference laboratories implementing a quality management system according to international standards	<5%	≥50%





# TB Laboratory Quality Management Towards Accreditation Harmonized Checklist



## TB Laboratory Quality Management Systems Towards Accreditation Harmonized Checklist (Incorporating SLIPTA and GLI Stepwise Process towards TB Laboratory Accreditation)

8.4 Are specimens packaged appropriately according to local and or international regulations and transported to within acceptable timeframes?	Y	P	N		SLIPTA	2
Does it also include the following	Tick for each item					
	Yes	Partial	No			
Is triple packing employed for sample transportation with forms separated from samples					GLI - TB	
Are samples transported to the laboratory by a secure process as soon after collection as Practical?						
8.6 Is complete procedure manual available at the workstation or in the work area?	Y	P	N		SLIPTA	3
Does it also include the following	Tick for each item					
	Yes	Partial	No			
<b>SMEAR MICROSCOPY:</b> Are correct smear preparation procedures available and followed?						
a) Before making the smear, is the slide cleaned with alcohol and clearly labeled with the laboratory number						
b) Is a swab-stick (or loop) used to collect from the specimen sediment (pellet) a representative portion of the sample for smearing						
c) Is there only one smear per sample?						
d) Is the smear approx. 2cm x 1cm and in the center of the slide?					GLI - TB	
e) After drying, is fixation done by gentle heating?						
f) Does the fixed smear have the appearance of a milky white film on the slide?						
g) Is the objective lens wiped clean after use on a positive smear?						
h) Are smears prepared on clean, unused glass slides						
<b>CULTURE:</b> Are the correct culture techniques and procedures followed?						
a) The volume of the specimen is checked and equal volume of digestion-decontamination reagent is added and thoroughly mixed						





## Training of trainers workshops



Lesotho, Nov 2013  
Vietnam, Feb 2014  
South Africa, Oct 2014

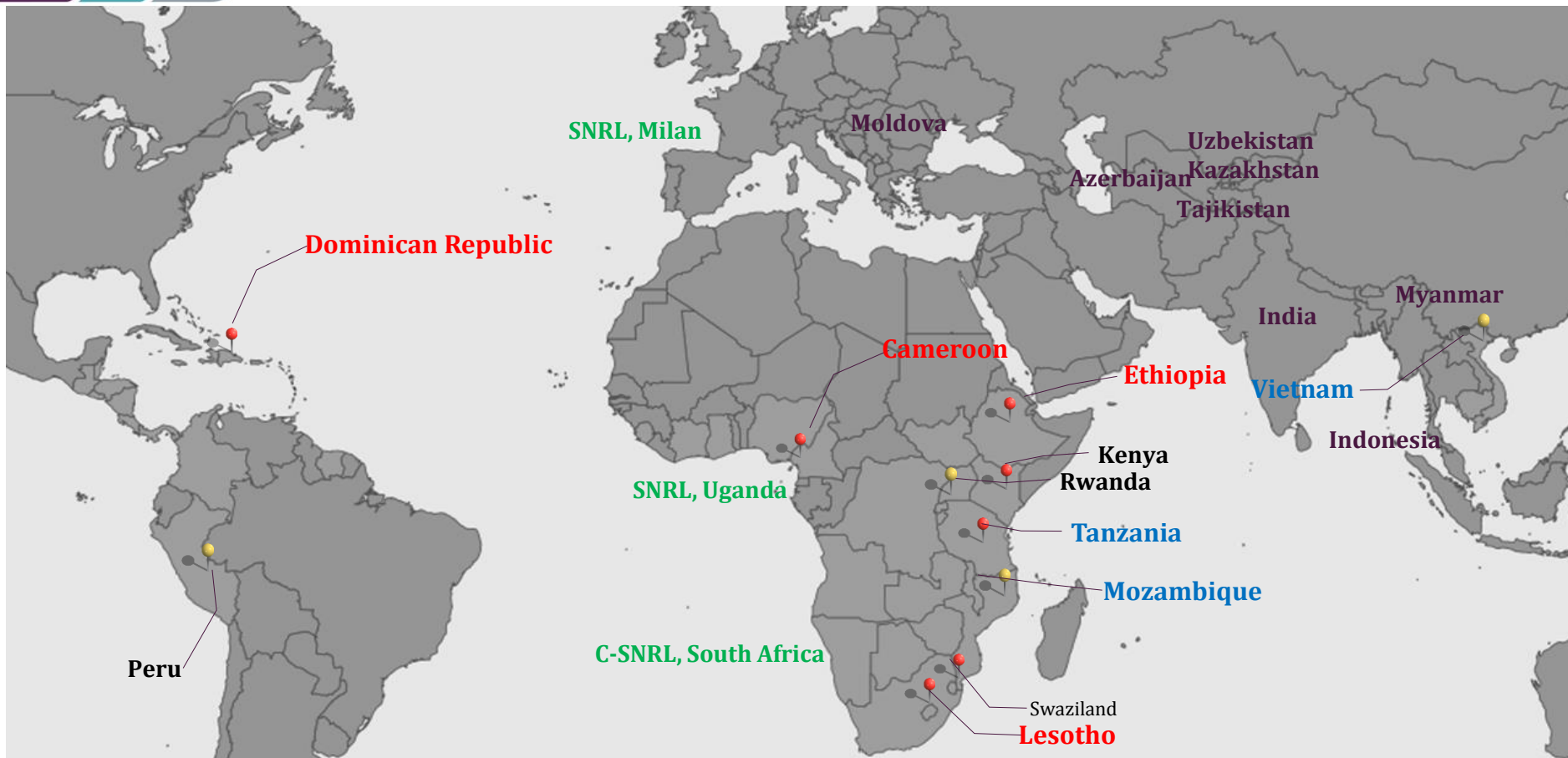


17th-28th February 2014





# TB SLMTA Implementation



2 Master Trainers

62 participants trained from 19 countries in TOT

51 trainers graduated

21 TB SLMTA laboratories enrolled in country implementation, 14+ starting by end 2014

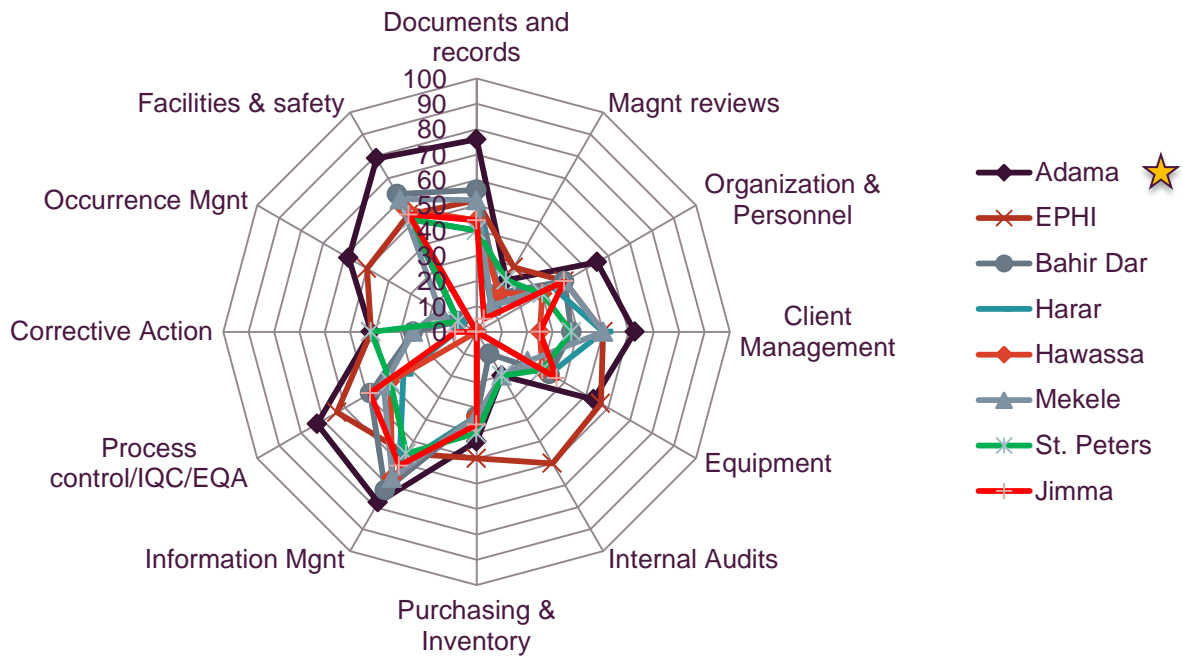






# Ethiopia

## Baseline audit data - Ethiopia





## Ethiopia: impact of TB SLMTA

### EPHI, NTRL- baseline and follow up audit



- Follow up visits by trainers
- Additional mentor rotates around labs for mentoring, approx 1 week per visit after each workshop



# Cameroon

## Bamenda lab, Cameroon - baseline and interim audit



## Facility-based approach

- 1 regional lab
- 10 participants
- 2 trainers

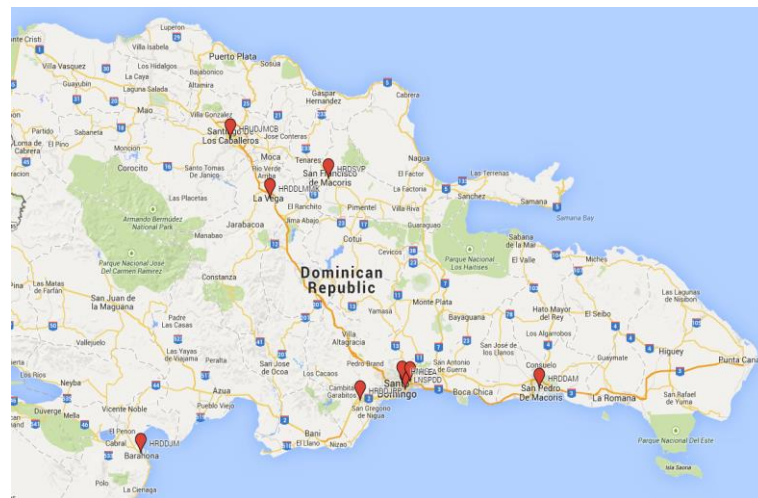
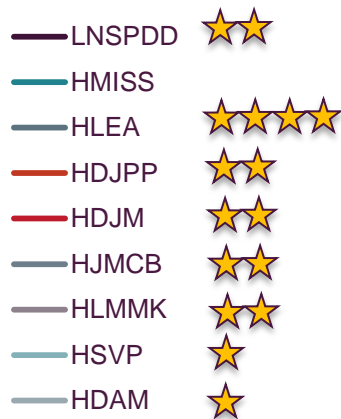
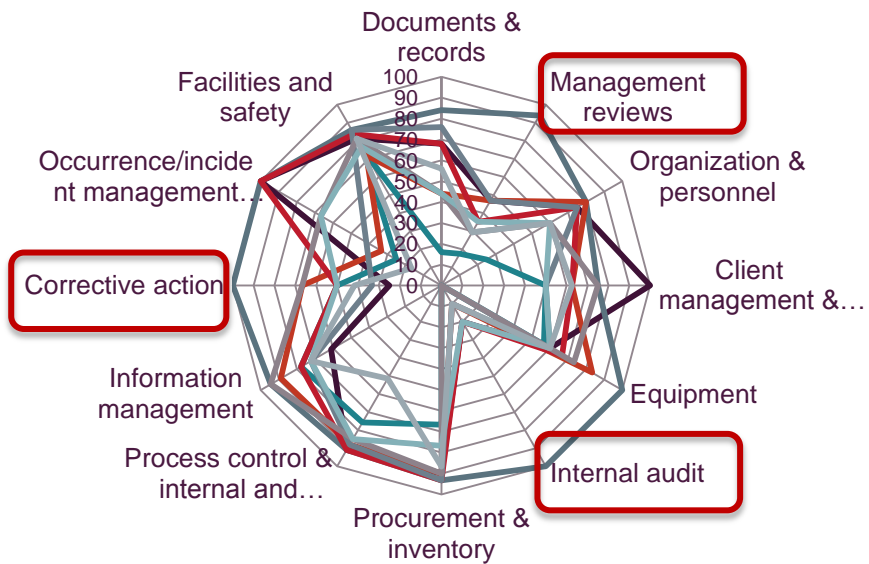
Interim visit by TB SLMTA MT





# Dominican Republic

## TB SLMTA DR – 9 labs; baseline audit data





# Lesotho

## Lesotho, NTRL & 2 regional labs - baseline audit



— NTRL  
— Motebang  
— Mafeteng

0 stars

- Improvement projects
- Creating and updating personnel files
- Monitoring Equipment maintenance
- Acid alcohol usage
- Establishing TAT at NTRL
- Monitoring TAT at Motebang Laboratory
- Reducing Gene Xpert error rates
- Completing requisition forms





# TB SLMTA M&E



## Summary

Country:   
 Author:

**Instructions**  
 Phases have been determined as follow:  
 Phase 1 includes: Baseline Audit, Workshop 1, IP1, the two first mentorship visits  
 Phase 2 includes: Workshop 2, IP2, the next two mentorship visits  
 Phase 3 includes: Workshop 3, IP3, the last two mentorship visits  
 Phase 4 includes: Exit Audit  
 Please enter the right number into the grey boxes  
 If necessary, please explain in the narrative part why the targets have not been met

TB SLMTA		Phase 1		Phase 2		Phase 3		Phase 4	
Group A		Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual
<b>Number of laboratories involved in this Group:</b>		8							
<b>Quantitative outcomes</b>	Start dates	Apr-14	Apr-14	Aug-14	Aug-14	Dec-14		Apr-15	
	Completion dates	Aug-14	Aug-14	Dec-14		Apr-15		Apr-15	
	Number of IPs completed	22	19	22	-	22	-	-	-
	Number of workshops conducted	1	1	1	1	1	-	-	-
	Number of participants who attended workshops	22	24	22	24	22	-	-	-
	Number of participants who successfully passed all workshops					22	-	-	-
	Number of baseline assessments conducted	8	8		-	-	-	-	-
	Number of mentorship visits conducted	16	-	16	-	16	-	-	-
	Number of exit assessments conducted		-	-	-	-	-	8	-
	Number of lab with accreditation							8	
Average of the participant satisfaction			#VALUE!		#VALUE!		#VALUE!		#VALUE!
<b>Narrative</b>	If the target of baseline audits has been met, explanations:								
	If the target of IPs has been met, explanation:								
	If the target of workshops has been met, explanations:								
	If the target of mentorship visits has been met, explanations:								
	If the target of exit audits has been met, explanations:								
	General challenges and their solutions:	Concerning the challenges noted: -Harmonized checklist used during the training was not the finalized version -Trainers showed lack of preparation during the first day of the workshop. However, there was improvement from D2 to D5 -Not all participants manuals had file indexes -One trainer did not work in a team with his colleagues and did not entertain assistance from his colleagues -> it could be relevant to train the trainer on mentorship enable them to assist more effectively the labs							
Narrative Feedback from participants:	Concerning the feedback from the participants of the first workshop: -Modules were not indexed -Short training duration and congested -Training evaluation should be done daily -Inadequate time was provided for questions and discussions -Some key documents should have been provided with CDs or memory stick								



## Data management - audit database

- Offline and online use
- SLIPTA, TB harmonised and follow up visit checklists
- Other checklists can be added
- Automated reporting
- Use on tablets
- Initial pilot in Dominican Republic





## Challenges and opportunities

- Strengthen mentoring and country level support
- Enlarge pool of master trainers
- Publish and share experiences
- Prioritise GLI phase 1 activities in initial IPs
  
- Expand in Latin America, Africa and Asia
- Focus on high MDR-TB countries/regions, e.g. E Europe/Central Asia
- Link with other related trainings for holistic solution, e.g. lab leadership
- Strengthen partnerships:
  - GLI/SNRLs
  - ASLM
  - Other partners, especially for mentoring



# STRENGTHENING TB LABORATORY MANAGEMENT TOWARDS ACCREDITATION

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