Nigeria Experience with implementation of WHO standards

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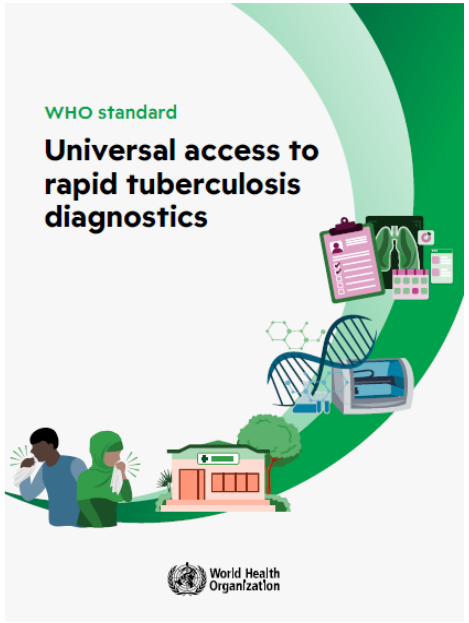


Presentation Outline

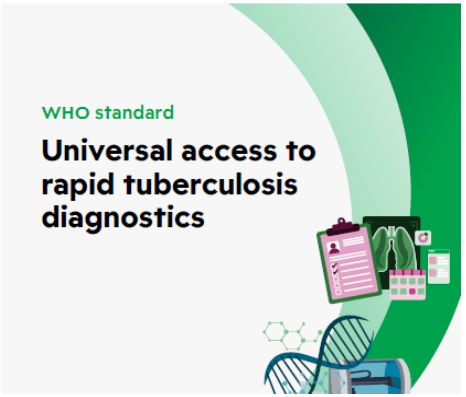
- Introduction
- Steps involved in implementing the standard
- Some results and lessons learnt
- Conclusion

Background

- Projected population of 231 million
- Administratively divided into 36+ 1 States and 774 LGAs.
- Has the highest TB burden in Africa
- Incidence rate 219/100,000 pop
- Estimated 479,000 TB cases in 2023
- TB treatment coverage of 70% in 2023.

Introduction

- The WRDs in use in the country include Xpert MTB/RIF, Truenat, TB LAMP.
- There are >503 Xpert MTB/RIF machines in the country.
- In 2022, WHO developed Standard to monitor Universal access to rapid TB diagnostics.
- The standards contained sets of benchmarks (indicators) to monitor Universal access to rapid TB diagnostics (WRD)
- Nigeria was requested to provide information on this benchmarks for the year 2022.



Steps in implementing the standards

Country adaptation of the standards

Internalizing the standards

Develop training materials

Orientation of programme staff & partners

Roll out of the standards (data collection)

Finalize data collection with report available

Country adaptation of the standards

- Focal person & team assigned to support the process.
- The 12 standards were adapted to align with the National Guidelines and implementation in the country.
- The standards aligned with cascade for monitoring TB diagnosis.
- An excel template was thereafter developed to allowed reporting of the benchmarks by states and by zone.

Cascade for TB diagnosis – This help us to identify gaps

Identify Presumptive TB

- Screening OPD Attendees
- Systematic Screening of high-risk groups (e.g. PLHIV, Contacts, Malnourished, IDPs etc)
- Screening community members
- Chest Xray for screening (e.g. with PDX or WoW)

Send Presumptive TB for test (Accessing testing)

- Implementing Algorithm with WRD as primary diag. tool
- Xpert or other WRD in health facilities (pri, sec & tertiary).
- Specimen transportation system.
- All presumptive and diagnosed TB patients have access to WRD.
- Testing capacities matches the need

Presumptive TB get tested

- Xpert machines or other WRD functional
- Functional machines have error rate <5%(quality of testing)
- All presumptive TB are tested with WRD.
- Universal DST provided.

Presumptive TB Receive results (receiving a diagnosis)

- All presumptive and diagnosed TB have a WRD result.
- Test positivity rate monitored.
- Timely delivery of results.

Diagnosed cases started on treatment

- All diagnosed TB cases started on treatment

The adapted standards

Identify Presumptive TB

Benchmark 1

- Proportion of household contacts screened for TB.
- Proportion of PLHIV on care screened for TB
- Proportion of other locally relevant high-risk groups (**DM**) that are screened for TB
- Proportion of other locally relevant high-risk groups (Undernourished children, DM, IDP) that are screened for TB

Benchmark 2

- proportion of LGAs where Xray is used regularly for TB screening

Send Presumptive TB for test (Accessing testing)

Benchmark 3

- Proportion of LGAs that have a TB diagnostic algorithm that requires a WRD to be used as the initial diagnostic test for all presumptive TB.

Benchmark 4

- Proportion PHC with access to WRDs (either on site or through a sample referral system).

Benchmark 5

- Proportion of notified new and relapse TB cases tested with WRD as the initial diagnostic test.

Benchmark 6

- WRD testing capacity meets expected needs

Presumptive TB get tested

Benchmark 7

- Proportion of functional WRD machines/instruments with an error rate of ≤ 5%.

Benchmark 8

- Proportion of presumptive TB that are tested with WRD

Benchmark 9

- All patients with bact confirmed TB undergo universal DST.

(9a). % of bact confirmed PTB with DST results for RIF.
(9b). % of bact confirmed RR PTB and DST results for FQ
(9c). % of bact confirmed RR and FQ-resistant PTB with DST results for bedaquiline
(9d). % of bact confirmed RR and FQ-resistant PTB with DST results for linezolid

Presumptive TB Receive results (receiving a diagnosis)

Benchmark 10

- Proportion of patients notified with PTB tested with a WRD, irrespective of results, before starting treatment

Benchmark 11

- All LGAs monitor the test positivity rate to optimize the impact of screening and testing strategies. (% OF LGAs that monitor test positivity rate)

Benchmark 12

- Proportion of laboratories that achieve a TAT of ≤ 48 hour for ≥ 80% of samples received for WRD testing

Internalizing the standards

- Leveraged on the planning meeting between NTBLCP & WHO from the central & zonal level.

- Objective of the session on standards:
  - Understand the standards
  - Clarify issues raised on any of the standards
  - Have the same meaning.
  - Obtain inputs into the excel template for finalization

Examples of issues raised during hybrid meeting

- Concerns were mostly raised concerning Benchmark 2, 4. 7 and 11 of the WHO standards

Benchmark 2:
Question: Regularity of the use of CXR at the LGA level. It's not a policy guideline to use CXR as a screening tool. What does the term 'regularity' means?
Response: The use of CXR during weekly or quarterly community campaigns in an LGA can be taken to be regular.

Benchmark 4:
Question: should PHC covered by sample movement be included in the numerator of this benchmark
Response: It is only the PHCs where the patient must move to another facility to access diagnostic services that should be deemed as not having access.

Develop training materials

- Finalized the excel template for data collection.
- Develop a power point presentation.
- For orientation of State TBL Programme managers, State QA officers, State DR-TB Focal person, and partners from the 36 states and FCT.
- The training slide highlight the cascade for TB diagnosis in the country and link each of the benchmark to the cascade.
- The slide also describes each of the benchmarks for easy understanding.

Orientation of programme staff & partners

- The NTBLCP leveraged on the 2nd Quarter 2023 zonal review meetings in all the 6 geopolitical zone.

- State TBL Programme managers, State QA officers, State DR-TB Focal person, and partners from the 36 states and FCT on the benchmarks.

- The developed training slide was used during this orientation.

- Questions and concerns were adequately addressed.

- Timeline and methodology agreed upon.

Roll out of the standards (data collection)

- Data was collected at the Centra level, State level and in some health facility level

- The WHO zonal officers, the State TBL Programme manager, State QA officer and the State M&E focal person supported the collation of information for the standards (benchmarks).

- The WHO zonal officers and programme officer from national level provided supervisory support.

- The Laboratory benchmarks was filled for each of the state and also for selected health facilities during routine supervisory visits

Periodic review of the collated benchmark

- The filled lab benchmarks are sent by the State TBL Control Programme to the NTBLCP.

- Submitted benchmarks are review and feedback provided.

- Data gaps identified from the benchmarks are addressed.

Feed back – color code & feed back form

Benchmark Number	Laboratory benchmarks	Ekiti	Lagos	Ogun	Ondo	Osun	Oyo
1	All household contacts, all PLHIV, and other locally relevant high-risk groups are screened for TB.						
2	In all LGAs, chest X-ray is used regularly for TB screening.						
3	In all facilities in all LGAs, the TB diagnostic algorithm requires the use of a WRD as the initial diagnostic test for all individuals with presumed TB, including children and PLHIV (combined with lateral flow lipoarabinomannan [LF-LAM]) and extrapulmonary TB.						
4	All primary health-care facilities have access to WRDs (on site or through sample referral).						
5	All individuals with TB have access to a WRD as the initial diagnostic test.						
6	WRD testing capacity meets expected needs, including surge capacity, according to the latest data.						
7	All functional instruments have an error rate ≤ 5%.						
8	All individuals with presumptive TB are tested with a WRD						
9	All patients with bacteriologically confirmed TB undergo universal drug susceptibility testing.						
10	All patients with pulmonary TB receive an initial WRD result to inform their diagnosis.						
11	All LGAs monitor the test positivity rate to optimize the impact of screening and testing strategies.						
12	All TB testing laboratories achieve a turn-around time of ≤ 48 h for ≥ 80% of samples received for WRD testing.						

Key		
Green		All options filled
Yellow		Incompletely filled
Red		Not filled

<u>Feedback on Lab benchmark in Ekiti state</u>

Benchmark 2

- Number of LGAs in which CXR is used regularly (with or without CAD) for TB screening was put as 1, is this correct, is there any LGA where Xray is used regularly for screening in Ekiti state, if yes, what is the name of this LGA.

Benchmark 3

- Number of LGAs in which all facilities have a TB diagnostic algorithm that requires a WRD to be used as the initial diagnostic test for all individuals with presumptive TB was put at zero (0). As we discussed during the meeting, we can put the no. of LGA with DOTS service and in the remarks, we can put a remark that out of the -------- number of health facilities in the state, ---------- are providing TB services and it is only in those that are providing TB services that we have the algorithm.

Benchmark 4

- Kindly put in the remark column the number of PHC with GeneXpert, and kindly also state the name of the PHC
- The Number of primary health-care facilities with access to WRDs was put at 217, is this the number of PHC with DOTS services, if the answer is no, what is the number of PHC with DOTS services.

Benchmark 9:

- 9a: Number of patients notified with bacteriologically confirmed pulmonary TB with DST results for RIF was put at 21; this seems to be wrong. The state should put in this cell, the number of bacteriologically confirmed pulmonary TB cases that had Xpert test done in 2022. Please correct this as appropriate
- 9b. Number of patients notified with bacteriologically confirmed RR pulmonary TB and DST results for FQ was put as 115; this is supposed to be the number of MDR/RR-TB cases in 2022, hope this is the case, if not kindly correct as appropriate.
- Is there any Pre-XDR-TB and XDR-TB diagnosed the state in 2022.

Results

Used the standards to assess capacities of national tools to report and area for improvement

#	Laboratory Benchmarks	Color grading
1	All household contacts, all PLHIV, and other locally relevant high-risk groups are screened for TB.	
2	In all LGAs, chest X-ray is used regularly for TB screening.	
3	In all facilities in all LGAs, the TB diagnostic algorithm requires the use of a WRD as the initial diagnostic test for all individuals with presumed TB, including children and PLHIV (combined with lateral flow lipoarabinomannan [LF-LAM]) and extrapulmonary TB.	
4	All primary health-care facilities have access to WRDs (on site or through sample referral).	
5	All individuals with TB have access to a WRD as the initial diagnostic test.	
6	WRD testing capacity meets expected needs, including surge capacity, according to the latest data.	
7	All functional instruments have an error rate ≤ 5%.	
8	All individuals with presumptive TB are tested with a WRD	
9	All patients with bacteriologically confirmed TB undergo universal drug susceptibility testing.	
10	All patients with pulmonary TB receive an initial WRD result to inform their diagnosis.	
11	All LGAs monitor the test positivity rate to optimize the impact of screening and testing strategies.	
12	All TB testing laboratories achieve a turn-around time of ≤ 48 h for ≥ 80% of samples received for WRD testing.	

Key

	NTBLCP tool can completely report on the benchmark
	NTBLCP tool can report on the benchmark with some limitation/gap
	There is no reporting tool for this benchmark. The information is only available in the facility.

Some results..

Benchmark 1	
Proportion of household contacts screened for TB.	94%
Numerator: Number of household contacts of new and relapse cases of bacteriologically confirmed and notified pulmonary TB who were screened for TB	93304
Denominator: Number of household contacts of new and relapse cases of bacteriologically confirmed and notified pulmonary TB.	99732
Proportion of PLHIV on care that are screened for TB	81%
Numerator: Number of PLHIV on care that are screened for TB	1826951
Denominator: Number of PLHIV on care	1,970,691
Proportion of other locally relevant high-risk groups that are screened for TB	
Numerator: Number of locally relevant high-risk groups that are screened for TB	
Denominator: Number of locally relevant high-risk groups	
Benchmark 2	
In all LGAs, chest X-ray is used regularly for TB screening.	7%
Numerator: Number of LGAs in which CXR is used regularly (with or without CAD) for TB screening	56
Denominator: Total number of LGAs in Nigeria	774
STEP 2: ACCESSING TESTING	
(Increase access to WRDs)	
Benchmark 3	
In all facilities in all LGAs, the TB diagnostic algorithm requires the use of a WRD as the initial diagnostic test for all individuals with presumed TB, including children and PLHIV (combined with lateral flow lipoarabinomannan [LF-LAM])and extrapulmonary TB.	100%
Numerator: Number of LGAs in which all facilities have a TB diagnostic algorithm that requires a WRD to be used as the initial diagnostic test for all individuals with presumptive TB, including children and individuals with HIV (combined with LF-LAM) and extrapulmonary TB	774
Denominator: Number of LGAs	774

Results…

- Benchmarks identified varying gaps in the implementation of WR at state level, which will guide future placement of WRD.
- It identified best practices like the monitoring of test positivity rate in few LGAs, which will be scaled up to other LGAs.
- It helped uncover that Health facility coverage (especially PHC) with TB services is suboptimal which limits the use of WRD as primary diagnostic tool.
- Tools for routinely reporting TAT from WRD lab is not available at state level, this will be built into the Laboratory information system.
- Area for inclusion/update identified on the recording & reporting tool
- TAT varies from facility to facility depending on the availability of WRD in the facility.

Lessons learnt

- Capacities to use the standard available within the programme.
- Understanding the standards is key to completing the benchmark.
- Some of the data set needed required collaboration with other programmes (HIV programme, nutritional programme)
- Best practices exit within the programme that required scale up
- Using the programme staff to fill the standards enhance ownership and continued use of the standards (to be used in 2024)

Conclusion

- The standards helped us to know where we are as a country in the roll out of the WRD, we were able to identified best practices to be shared, gaps that need to be corrected, and the lessons learnt that will also guide future placement of WRD.

Thank you