

# Implementing WHO Standards for Universal access to Rapid TB diagnostics

**UGANDA**

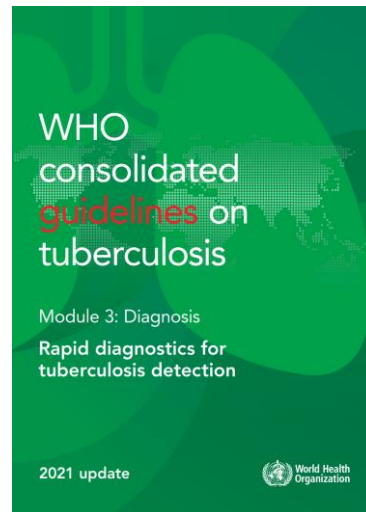
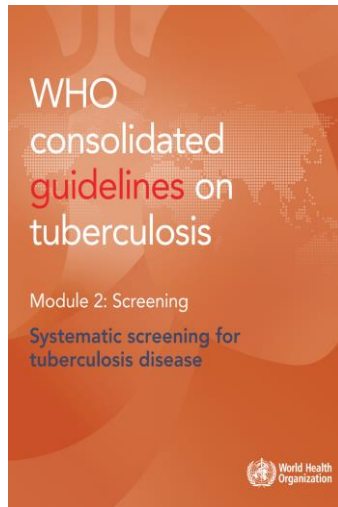
[David Asiimwe; NTLPI]



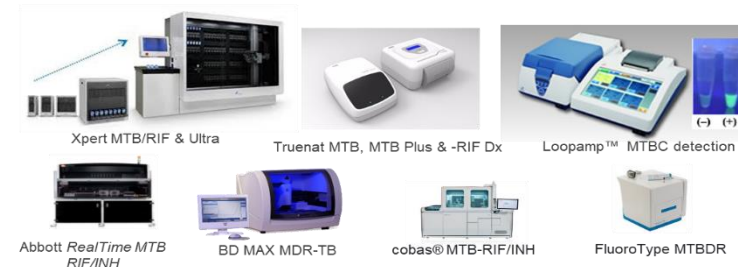
# Background



- *Ensure early detection of tuberculosis*
- *Detect all cases of drug-resistant tuberculosis.*
- *Scale up introduction of new diagnostics*
- *Implement systematic screening for tuberculosis among selected high-risk groups.*



...and more





# Diagnostic Gaps, 2021



Percentage of people estimated with TB disease who were notified	60%
Percentage of people newly diagnosed with TB who were initially tested with a WHO-recommended rapid test	38%
Percentage of people newly diagnosed with pulmonary TB who were bacteriologically confirmed	63%
Percentage of people diagnosed with bacteriologically confirmed TB who were tested for rifampicin-resistant TB	70%

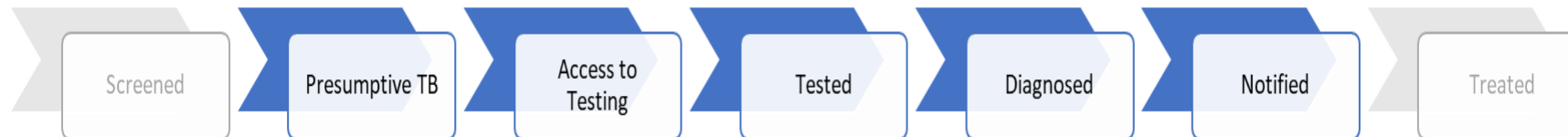


Target for 2025 – all notified cases tested with a WRD  
 >10 years since first recommendation

Access is a major issue with only 22% of sites having a WRD in 2020

Other diagnostic issues

- Drug resistance
- Timely reporting
- Quality assurance





# Programmatic Standards – Diagnostic Cascade



## STEP 1

### Identifying presumptive TB

- Systematic screening of high-risk groups
- Chest X-ray for TB screening



## STEP 2

### Accessing testing

- Up-to-date diagnostic algorithms
- WRD access in primary health care
- Diagnostic coverage reaches all
- Testing capacity matches needs



## STEP 3

### Being tested

- Monitoring quality of testing
- All patients with presumptive TB tested with a WRD
- Universal DST provided



## STEP 4

### Receiving a diagnosis

- All pulmonary TB patients have a WRD result
- Test positivity rate monitored
- Timely delivery of results



Improve access and use of WRDs as initial test among presumptive TB cases

Improve access and use of WRDs for investigating presumptive TB patients identified through screening

Increase in bacteriologically confirmed case detection

Reduced time to diagnosis



# TB country profile - Uganda



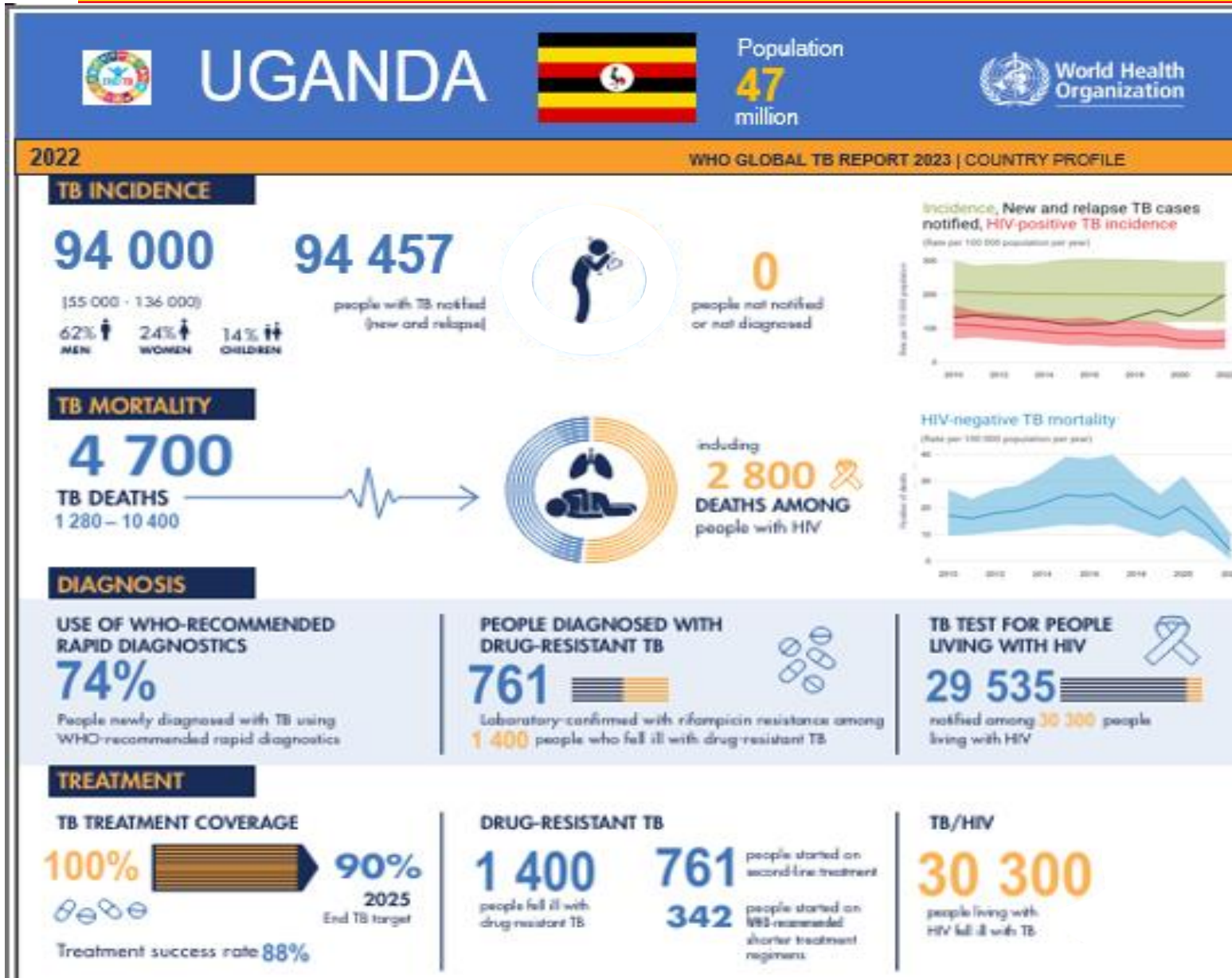
**VISION:** A Uganda free of TB and Leprosy

**MISSION:** To provide quality, accessible and affordable TB/Leprosy prevention and care services to all population groups in Uganda.

**Mandate:** Policy formulation, resource mobilization and budgeting, strategic planning, setting standards and quality assurance, capacity building, monitoring and evaluation



# TB country profile...



Uganda among the 30 high burden TB & TB-HIV countries

94000 cases ≈ 249 new TB cases daily

12,000 deaths ≈ 33 Ugandans die daily

# Implementation of the Standard

- Uganda NTP collaborated with WHO to implement WHO standards for Universal access to rapid TB diagnostics
- The task was to establish the 2022 baseline on all the 12 benchmarks
- Data and workflow for regular reporting by the country from districts to national level
- Identify data gaps from the benchmarks and solution implemented or a recommendation for improvement
- The implementation gaps identified from the benchmarks and prioritization for 2024
- Capture best practices or tools used for addressing the benchmarks and improving access
- This was to enable the country to overcome gaps in data collection by identifying workable solutions, documenting best practices for completing the standard and improving performance against benchmarks





# What was done?

- The activities for this project included;
  - Inception meetings with key stakeholders
  - Review of available data and development of data collection tools (for data not available) to be administered to the facility staff
  - Training for field data collectors (collect data not available)
  - Piloted the data collection tools in Wakiso district and used the feedback to inform the data collection process
  - Field data collection
  - Data analysis, reporting and dissemination



# Implementation Work Plan

Activity	Aug-23				Sep-23				Oct-23				Nov-23				Dec-24				Jan-24							
	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4				
Inception meetings for WRD Standards & Agreement sharing	█	█	█	█																								
Funds Receipt						█																						
Meetings with MAKBRC							█																					
WRD Benchmarks Tools Review Workshop										█																		
Training for field data collectors											█	█																
Collection of data centrally from available data sources											█	█																
Field data collection													█	█	█	█												
Data Analysis																	█	█	█	█								
Report Writing																					█	█	█	█				
Results Dissemination																												█

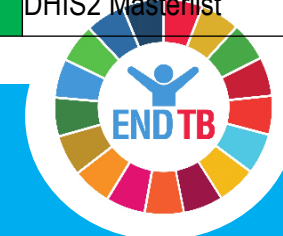


# Results achieved

No	Numerator/ Denominator	Standard	Number	%	Data collection	Source
1a	Numerator	Number of household contacts of new and relapse cases of bacteriologically confirmed and notified pulmonary TB who were screened for TB	371,253	84%		WHO global report
	Denominator	Number of household contacts of new and relapse cases of bacteriologically confirmed and notified pulmonary TB	441,395			WHO global report
1b	Numerator	Number of individuals identified in additional high-risk group(s) screened for TB	41,854,125	69%		DHI2
	Denominator	Number of individuals identified in the additional high-risk group(s)	60,414,158			DHI2
2	Numerator	Number of districts in which CXR is used regularly (with or without CAD) for TB screening	60	41%		MOH Infrastructure Division Assessment Report
	Denominator	Total number of districts in the country	146			UBOS 2021
3	Numerator	Number of districts 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	0	0%		
	Denominator	Total number of districts in the country	146			UBOS 2021
3b	Numerator	In all facilities visited, a WRD is used as the initial diagnostic test for all patients with presumed TB, including children, PLWHIV (combine with LF-LAM and extra PTB).		0%		Field Report
	Denominator	Health Facilities Visited	42			Field Report
4	Numerator	Number of primary health-care facilities with access to WRDs (either on site or through a sample referral system)	3,021	38%		MOH Report
	Denominator	Total number of primary health-care facilities in the country	7,908			DHIS2 Masterlist

## targets

- targets in your latest national TB Strategic Plan



# Results achieved

No	Numerator/ Denominator	Standard	Number	%	Status	Source
5	Numerator	Number of notified new and relapse TB cases tested initially with a WRD	<b>66,372</b>	<b>70%</b>		WHO global report
	Denominator	Total number of notified patients	<b>94,457</b>			WHO global report
6	Numerator	Number of WRD tests that can be performed with the existing instruments	<b>1,288,500</b>	<b>92%</b>		NTLP Report
	Denominator	Number of tests required to test all patients with presumptive TB	<b>1,401,211</b>			NTLP NSP Targets
7	Numerator	Number of WRD TB testing sites with annual error rates $\leq 5\%$	<b>201</b>	<b>70%</b>		DHIS2 033b
	Denominator	Number of WRD TB testing sites in the country	<b>287</b>			DHIS2 033b
8	Numerator	Total number of individuals with presumptive TB tested with a WRD	<b>694,815</b>	<b>62%</b>		DHIS2 106a
	Denominator	Total number of individuals with presumptive TB	<b>1,111,980</b>			DHIS2 106a

## targets

- Review targets in your latest national TB Strategic Plan

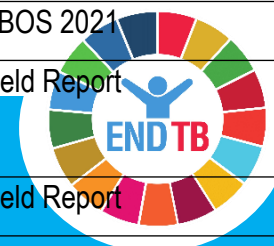


# Results achieved

No	Numerator/ Denominator	Standard	Number	%	Status	Source
9a	Numerator	Number of patients notified with bacteriologically confirmed pulmonary TB with DST results for RIF	39,868	74%		WHO global report
	Denominator	Number of patients notified with bacteriologically confirmed pulmonary TB	54,205			WHO global report
9b	Numerator	Number of patients notified with bacteriologically confirmed RR pulmonary TB and DST results for FQ	750	99%		WHO global report
	Denominator	Number of patients notified with bacteriologically confirmed RR pulmonary TB	761			WHO global report
9c	Numerator	Number of patients notified with bacteriologically confirmed RR and FQ-resistant pulmonary TB with DST results for bedaquiline		100%		NTRL to confirm
	Denominator	Number of notified patients with bacteriologically confirmed RR and FQ-resistant pulmonary TB				NTRL to confirm
9d	Numerator	Number of patients notified with bacteriologically confirmed RR and FQ-resistant pulmonary TB with DST results for linezolid		100%		NTRL to confirm
	Denominator	Number of notified patients with bacteriologically confirmed RR and FQ-resistant pulmonary TB				NTRL to confirm
10	Numerator	Number of patients notified with pulmonary TB tested with a WRD, irrespective of results, before starting treatment		66%		Field Report
	Denominator	Total number of patients notified with pulmonary TB, both bacteriologically confirmed and clinically diagnosed				Field Report
11	Numerator	Number of districts that monitor test-positivity rate	146	100%		NTLP Report
	Denominator	Total number of districts	146			UBOS 2021
12	Numerator	Number of laboratories that achieve a TAT of ≤ 48 h for ≥ 80% of samples received for WRD testing		36%		Field Report
	Denominator	Number of WRD testing laboratories				Field Report

**targets**

our latest national TB Strategic Plan



# Best Practices

- The country has 17 portable mobile digital X-ray and CAD systems and 5 mobile clinics supporting diagnosis.
- Increased coverage of WRDs to over 350 sites and over 3,000 facilities linked to integrated specimen referral system. LabXpert DS used to monitor tools and transmit results to clinicians and patients.
- Improvement in DST coverage to 74%, pDST for new and repurposed drugs available, and introduced Xpert MTB/XDR for INH and FLQ testing at sub-national level
- Identifying gaps specific to the regions and carry out quarterly mentorships to bridge the gaps
- Involvement of key players to support the regional mechanisms (USAID/ LPHS TB Activity supporting with the GET collaborative in poorly performing regions and CDC supporting TB ECHO CLICQ!)



# Challenges

- Collection of data from the available data sources may seem hectic (at some point you require to ensure data cleaning (data sources may make you either score or underscore).
- Missing data in the health facility registers (eg presumptive registers, Treatment registers)
- Poor or no documentation into the OPD registers at all entry points
- Knowledge gap among some healthcare workers



# Recommendations

- Use of electronic data systems and connectivity solutions
- To successfully implement the standard should be a combined effort by different players steered by the National TB Programs.
- Countries may require TA especially from those counties that have already implemented the standard





- Microscopy



- WRD





**THANK YOU!**

