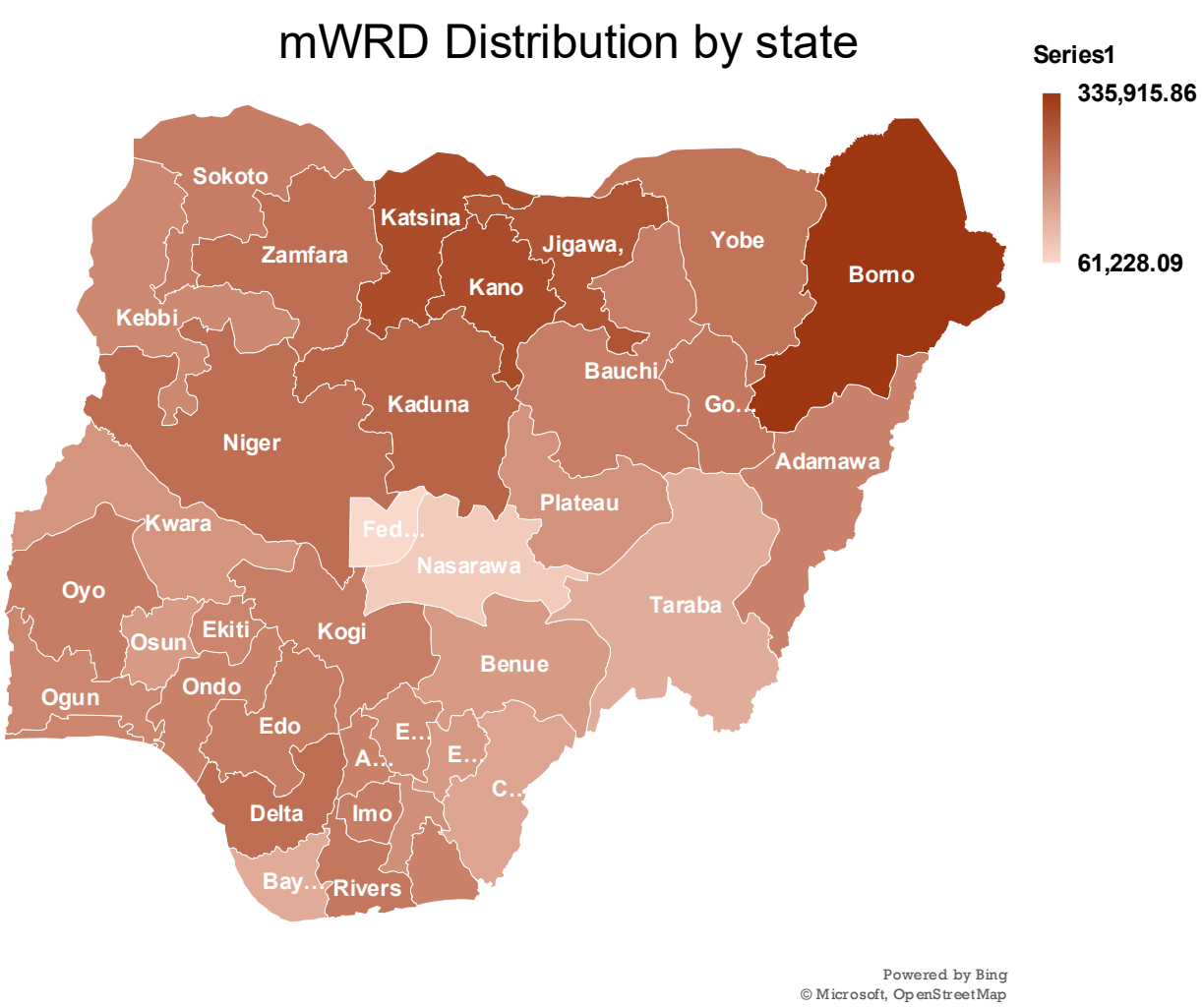
INTENTIONAL INTEGRATION OF LABORATORY SYSTEMS AND PROCESSES IN THE NATIONAL STRATEGIC PLAN IN NIGERIA

Dr. Tolulope ADARAN
Laboratory Specialist, Global Fund Grant
NTBLCP Nigeria

OUTLINE

- Diagnostic landscape
- Identified Laboratory gaps
- Integration of Objectives
- Lessons Learned
- Next Steps

Diagnostic Infrastructure



	Total
Population	~238M
Number of mWRD low/moderate complexity NAAT (e.g., GeneXpert/TrueNat/TB LAMP sites) Number of PDX with AI machines	Total - 1,191 Xpert – 527 TrueNat – 372 TB-LAMP – 292 411
Number of TB Treatment sites	~25,000
Line Probe Assay (LPA) Sites	LPA – 10
TB Reference Labs for culture + Drug sensitivity testing (DST) sites	11

The Current TB Molecular Diagnostic Network - NG

Expected in 2026

Pluslife - *Expected*

1450 bundles expected, **~90%** in PHC (allocated).

Truenat

372 Instruments, with **~28.8%** in PHC.

TB-LAMP

292 Instruments, with ~ **11.4%** in PHC

GeneXpert

527 instruments, with **~4.2%** in PHC

Identified Laboratory Gaps

- Uneven diagnostic distribution, affecting access
- Unstable power supply affecting laboratory operations
- Inadequate funding, leading to disrupted supply chain management and incessant stock-outs.

Collectively, there are 14 core objectives in the 2027 – 2031 NSP, while **9** objectives are specifically related to laboratory systems.

Integration of objectives

Objective 1: To intensify and strengthen mechanisms for sustainable domestic resource mobilization for increased in-country financing of the national TB budget from 10% in 2025 to at least 60% by 2031, and in-kind support, in alignment with End TB targets for country ownership and sustainability

- Amidst limited resources; expected Domestic resources to be channeled towards procurement of less expensive diagnostics and consumables, allowing efficiency and making it affordable for the government.
- Packaging advocacy kit with non-cash resources (diagnostic platforms, reagents and consumables) for private sector/corporation resource mobilization for laboratory support

COST BREAKDOWN
~$13.3 is the cost for diagnosing 1 patient for TB (with ~$5.9 on the first-line test), including other consumables

Objective 2: To scale up innovative, technology-enabled, patient-centered approaches for high-quality TB case finding, to increase TB notification rate from 193 per 100,000 population to 199 per 100,000 population by 2031

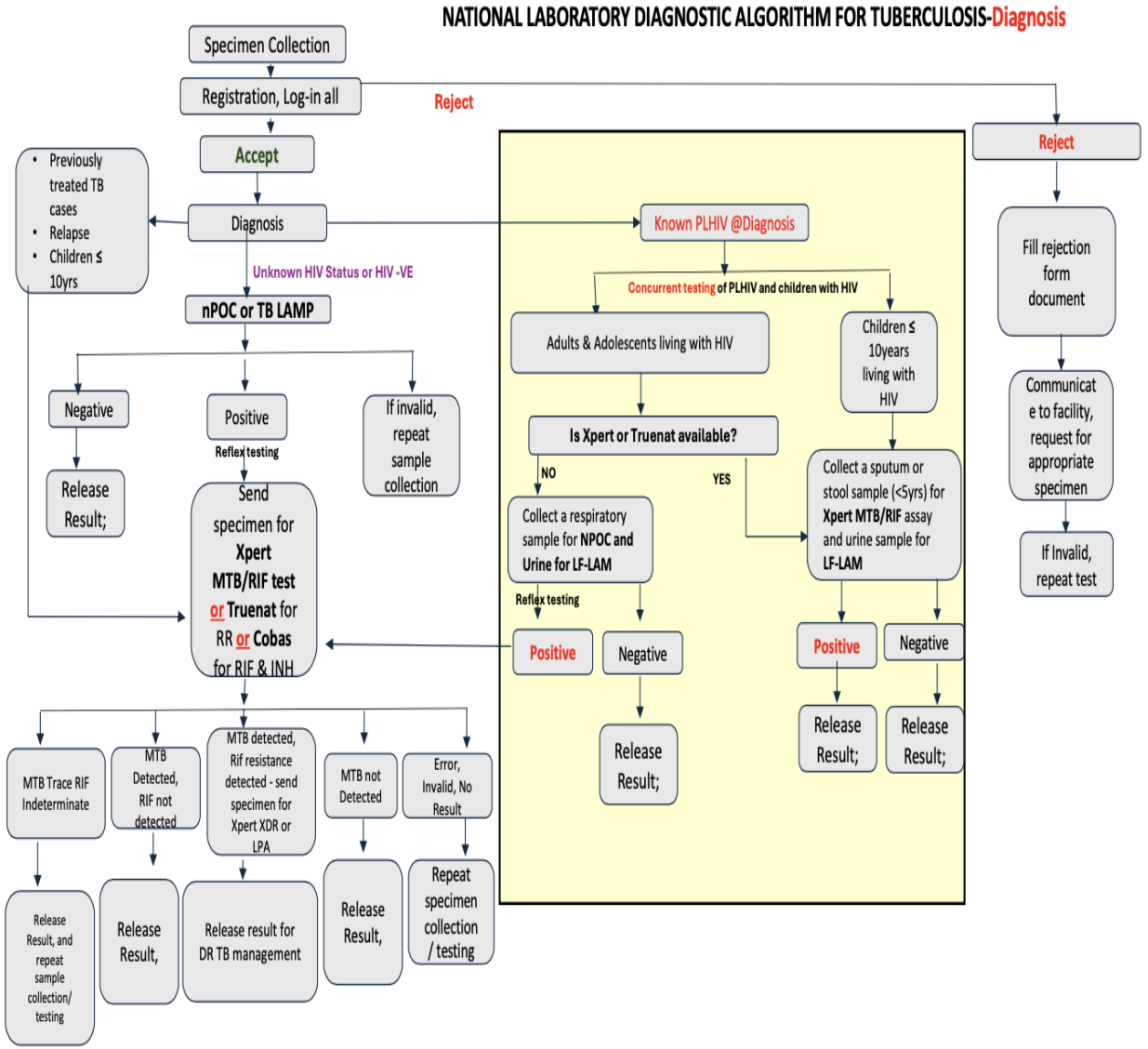
NSP Target: 1m WRD/100,000 population,

Expected diagnostics - 2,380; Current platforms - 1,191

Diagnostic gap – 1,189

Expected in 2026-1,450 NPOC

- Listed out the expected presumptive to be tested
- Identified both baseline diagnostic capacity for the country, while predicting the required additional platforms to procure
- Clearly mapped out diagnostic algorithm to ensure decentralization using less expensive NPOC and TB-LAMP.



Objective 3: To achieve and sustain a Tuberculosis treatment success rate of 95% by 2031, and to increase the cure rate among bacteriologically confirmed pulmonary TB patients from [baseline]% to 95% by 2031.

Incorporated means of ensuring quality treatment through improved integrated specimen referral mechanism

Strengthen quarterly EQA for AFB microscopy to monitor treatment (slide rechecking)

Objective 5: Increase the proportion of estimated MDR/RR-TB cases notified from 35% in 2025 to 80% by 2031 and ensure 100% of patients with rifampicin-resistant TB receive second-line drug susceptibility testing (DST) results, through strengthened case detection and universal access to rapid diagnostics.

- Clearly mapped out a diagnostic algorithm to ensure compulsory RIF testing for MTB-detected.
- Inclusion of GeneXpert XDR to test for other resistances in peripheral labs in 3 tertiary health facilities per state.
- Optimization and utilization of solid/liquid culture and DST
- Strengthen operations of the TB Reference Labs, towards ISO 15189:2022 accreditation
- Integrate the use of tNGS and the commodities in public health Lab services.

Objective 7: To ensure 95% annual availability of quality-assured tracer TB medicines, laboratory reagents, and supplies at treatment and diagnostic facilities through an integrated procurement and supply management system to achieve national TB targets.

- Include quantification of laboratory reagents and consumables in the medicines quantification tools; such as the QuanTB, Pick-n-Pack
- Integrate all commodities and medicines in the last-mile delivery (LMD)
- Build the capacity of the laboratories to report in the unified national logistics management information systems.

Objective 9: To increase the contribution of the private health sector to TB notification to at least 37% by 2031 while integrating TB services with HIV, malaria, and other diseases using sustainable, high-performing Public–Private Mix (PPM) models, and improve early diagnosis, linkage to care, and overall quality of services

- Decentralization of diagnostic equipment to the private sector;

Platforms	Proportion in Private
GeneXpert	17%
Truenat	20%
TB-LAMP	12%
NPOC - Pluslife	5%

- 1 TB Ref Lab; providing additional services for solid/liquid culture and DST

Objective 10: To strengthen community engagement in the provision of quality TB care by scaling up integrated community-based interventions—including active case finding, demand creation, stigma reduction, and linkage to care—in order to increase the proportion of TB cases notified through community channels from 40% in 2025 to at least 47% by 2031

- Awareness creation for lab services available in the community, through the CSOs, CHWs, etc
- Strengthened clear integrated specimen referral system for TB/HIV and public health priority diseases
- Deployment of portable platforms to the community for outreaches (PDX, NPOC, TB-LAMP) with HRH

Objective 11: To enhance integrated management of co-morbidities of interest (HIV, Mental Health, Malnutrition, and DM) by ensuring universal access to coordinated screening, diagnosis, treatment, and care for individuals and patients with the listed co-morbid conditions in order to achieve 100% case detection and treatment coverage and eliminate deaths by 2031.

- Integration of laboratory platforms for multi-disease testing on COBAS 8800, GeneXpert, Truenat, etc for TB and HIV
- Deployment of NPOC to cover OPD attendees

Objective 13: To strengthen the generation, coordination, and utilization of high-quality, locally relevant tuberculosis (TB) research and innovation to inform policy, improve programme performance, and accelerate progress toward achieving the End TB Strategy.

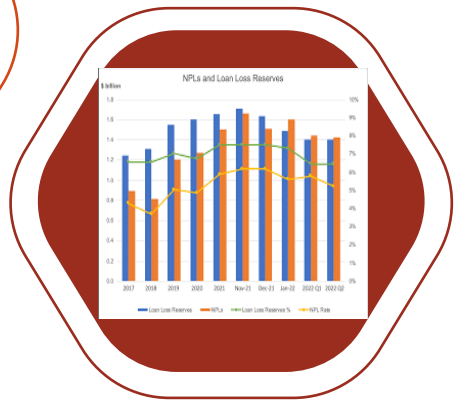
- Strengthen diagnostic research and innovation by collaborating with regulatory agencies on validation
- Established the Research methodology class for all staff of TB Reference Labs
- Build capacity for grant writing.

Lessons Learned

Intentional integration demands that laboratory policy makers have a seat at the planning table from day one, not as an afterthought.

POLITICS

Political will and high-level advocacy are non-negotiable



DATA

Data must drive the plan, not assumptions

SILO PROGRAM

Siloed program planning undermines laboratory system strengthening

HUMAN RESOURCE

Human capacity development must be systematically planned, not reactive

DRM

Sustainable financing requires domestic ownership beyond donor dependency

NEXT STEPS

- Intensive political drive, with government commitment to achieve integrated interventions
- Strong follow-up with promissory notes for fund release and integrate the implementation of interventions

Access and quality of laboratory services are critical diagnostic priorities towards the ENDTB strategy.


Thank you!
……quality builds here