TB DNA Country Experience: Case of Ethiopia

Anteneh Kassa, MD MPH

USAID Ethiopia

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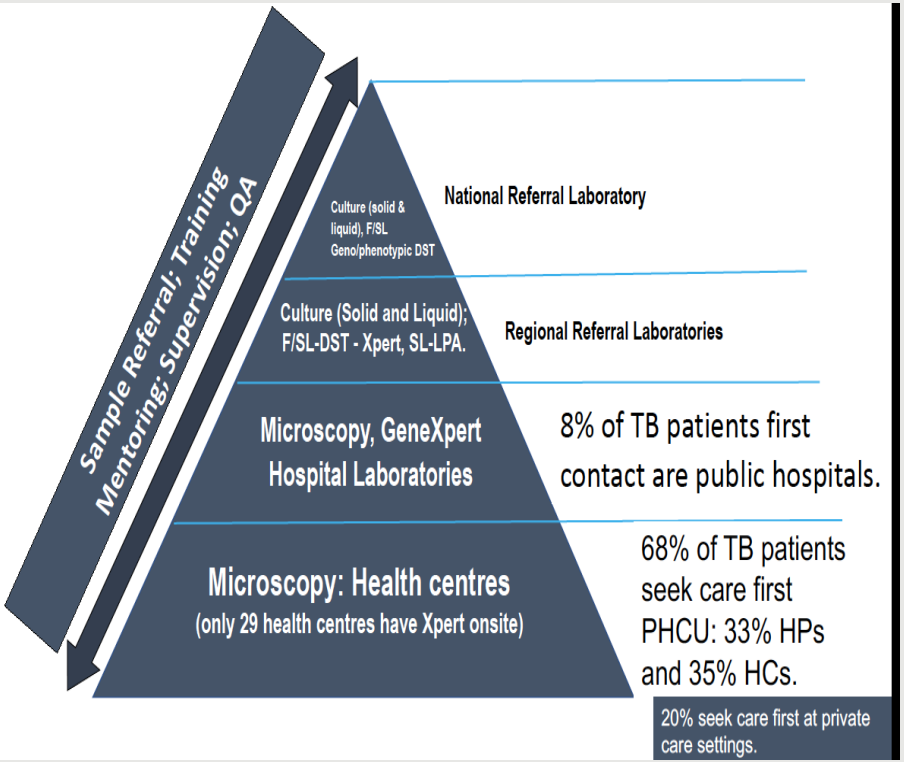
Outline

- Background-Country Context
- National TB Diagnostic Network: structure, coordination and management
- Situation Implementation level
- Country experience in TB DNA implementation in Ethiopia
- Achievements in the implementation of the TB DNA
- Lesson learnt and Best practices from TB DNA
- Summary

Background-Country Context

- Ethiopia: 112million population in 2022
- TB incidence: 119 per 100,000 population
- Among 30 High TB and TB/HIV burden country for 2020-2025
- NTP annually misses 30% of incident TB and 40% of DRTB cases
- The National Diagnostic policy recommends:
  - Use of WRDs including rapid molecular technics: Xpert, Truenat
  - All presumptive TB cases are recommended to be testing using rapid molecular technology: Xpert
  - Universal DST coverage for First and Second Line TB drugs before treatment initiation

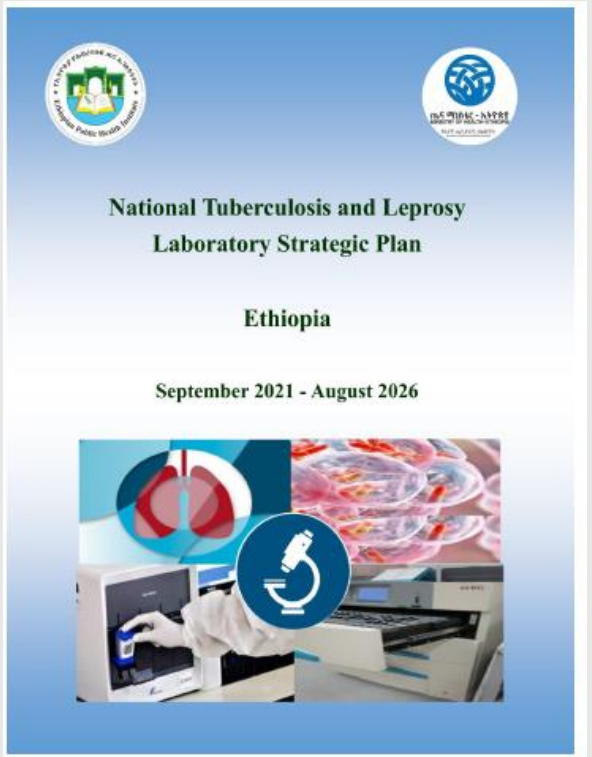
National TB Diagnostic Network



- **3-4 Tier Structure**:
  - NRL with full DST capacity, including new TB drugs
  - 10 regional Culture and DST RLs
  - 513 Xpert sites(131 10-color
  - 17 Truenat sites
  - >4000 Peripheral AFB labs
- First TB Lab NSP in 2022
- National TB lab Taskforce

Persistent systemic challenges in the Ethiopian TB Lab network system: TB Lab Network NSP 2021-2026:

- **No prior rigorous systematic assessment** to inform the NSP development
- The Lab section in the TB NSP **barely adequate**
- **No established TB Lab surveillance system** to track performances
- TB program **lacked standard package** for TB tailored LQMIS support to peripheral sites
- No information on **institutional capacity** of sites to optimally operate on Newer molecular technologies



Country experience in TB DNA implementation in Ethiopia

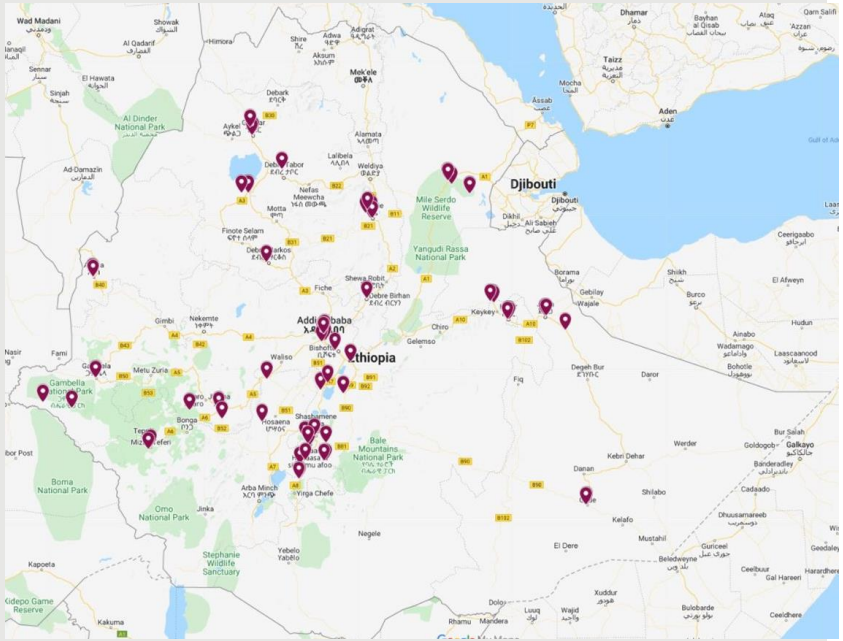
Why? To evaluate the organization, functionality, capacity and perf. of the TB dixtic Network

Who? NTP/NTRL leadership with financial support from USAID

When? Planning: Oct – Nov 2021 / Conducted Feb to March 2022, including a two week in-country verification

Who? 11 External Assessors and 15 local experts; grouped in 10 teams

Where? Visited 72 sites nationwide



Country experience in TB DNA implementation in Ethiopia(2)

Concept note, Government buy-in, Resource, mobilization of 12 global TB Lab Experts → Virtual Launching event → Pre-assessment data collection and analysis → Self-assessment using the TB-Net Tool → In-country verification of self-assessment a team of External Assessors during site visits and stakeholder consultations → Review of overall findings and supportive documents to reach consensus core on 10 core capacities → recommendations and priority interventions → **Joint Assessment report of the Tuberculosis Diagnostic Network of Ethiopia**

Lessons learnt from TB DNA

- ✓ **Validated** the first TB lab Diagnostic Network strengthening Network SP
- ✓ Provided **rigorous evidence-based recommendation** on how to strengthen the institutional capacity and functionality of the TB lab Network.
- ✓ Provided key recommended actions on **ensuring TB lab service** continuity in the unprecedented events of shock: pandemic, Conflict,…
- ✓ Guided the development of **TB lab LQMIS standards** tailored to the country needs

Lessons learnt from TB DNA(2)

- ✓ Provided **data-driven spatial analysis** information for the placement of Rapid molecular technologies
- ✓ Facilitated **local government's political will and increased commitments**
- ✓ Created opportunities for **increased resourcing:**
  - ✓ Incorporated in the recent **TB NSP mid-term Review** and latest **TB NSP 2023-2030**

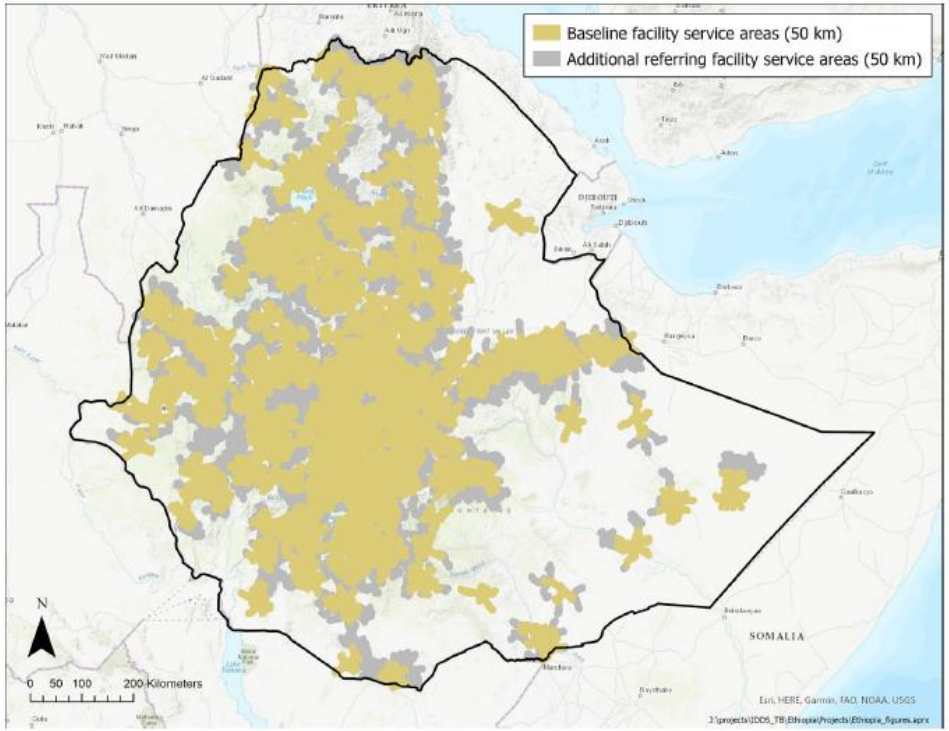
Achievements and Best practices in Ethiopia

- ***Leveraged additional resource*** from USG, Global fund TB NFM-4 grant and domestic sources
- ***TB lab information systems***:
  - added TB lab indicators in ***DHIS-2 reporting system*** and
  - Deployment of INTP ***"LabXpert Ethiopia"***- a real-time connectivity system for Xpert machines and other tests as needed
- ***Strengthening of TB lab Diagnostic network capacity*** award from USAID/IDDS
- Facilitated for an ***integrated approach for TB-Malaria program microscopy EQA*** programming

USAID Donated 126 Ten Color Xpert Machines, Jan 2023

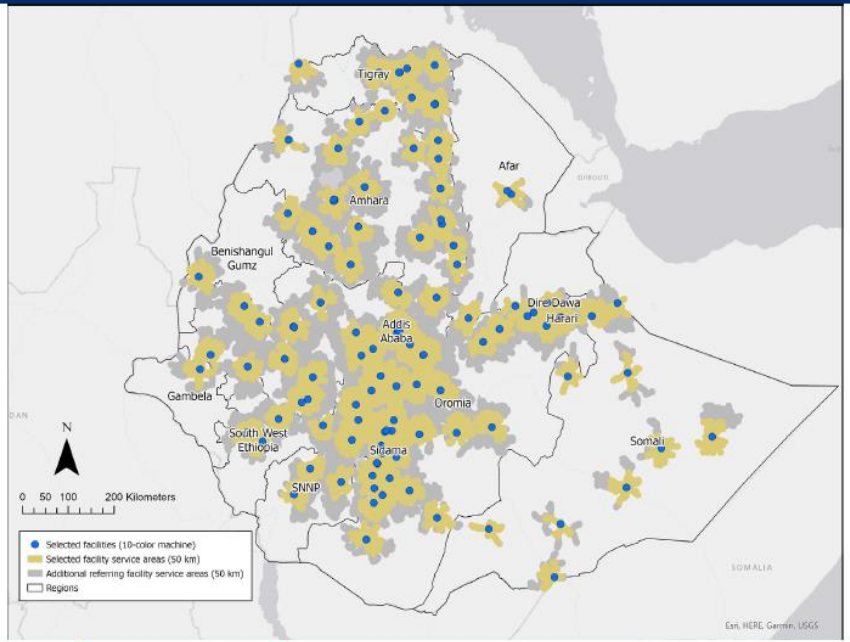
Question: How can the NTP deploy these 10-Coloro machine to optimized utilization?

1. BASELINE SERVICE AREAS WITH REFERRALS



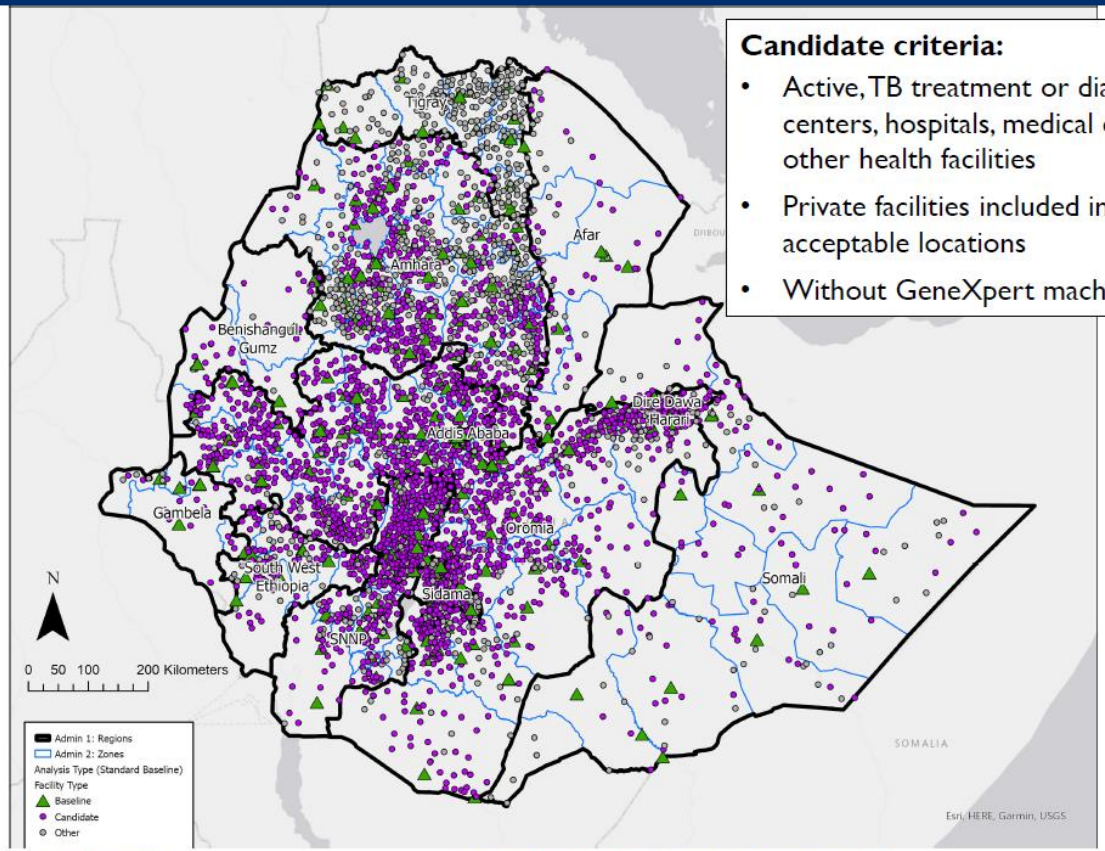
Service areas	Baseline Population Coverage (%)	Population With Referral (same region) (%)
20km	38.36%	54.53%
50km	**80.70%**	**91.00%**

PHASE 2: 10-COLOR NETWORK IMPACT (50KM SA)



Service Areas	Distance to Baseline Selection	Population Coverage (%) of 10-color GX selections	
		Selected Facilities for 10-color Machine	Selections + Referrals (Same Region)
20km	50km	25.55%	38.78%
50km	**50km**	**62.17%**	**84.48%**

PHASE 3: MOVING 130 6-COLOR MACHINES



Candidate criteria:

- Active, TB treatment or diagnostic health centers, hospitals, medical clinics or other health facilities
- Private facilities included in data file acceptable locations
- Without GeneXpert machines

Candidate Count = 2,822
2,500 Public
322 Private

Summary

- Conducting TB DNA is critical step for strengthening the national TB lab diagnostic capacity of priority countries

- Ethiopia benefited for the implementation of the TB DNA


TB DNA
Knowing your system
Determine your needs
Efficient use of Resources
Opportunity to advocate for political will

Thank you!!!

Acknowledgement

- GOE
- USAID-W
- TB stakeholders
- TB DNA External Assessors
- Uganda SRL
- iNTP/STP
- IDDS
- Management science for Health
- Reach Ethiopia
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- ASLM