



## **UGANDA TUBERCULOSIS ROADMAP OVERVIEW, FISCAL YEAR 2024**

This is an overview of the USAID/Uganda FY 2024 Tuberculosis (TB) Roadmap, implemented with the FY 2023 budget. The roadmap was developed in consultation with the National TB and Leprosy Program (NTLP) and with the participation of national and international partners involved in TB prevention and care in the country.

In 2022, the World Health Organization (WHO) estimated that the TB incidence in Uganda was 94,000, translating to 198 per 100,000 population. TB mortality was estimated at 1,900 among HIV-negative persons, with an additional 2,800 deaths among people living with HIV (PLHIV). The number of estimated incident cases has been steadily increasing, though the incidence rate has been fairly consistent, with a slight decrease in 2022. Children account for 16 percent of notifications; among notifications over 15 years, 32 were women, and 52 percent were male. The 2022 TB notifications in Uganda exceeded the estimated incidence for the first time in large part due to intensive biannual case finding efforts.

The overall goal of the 2020/21-2024/25 National Strategic Plan (NSP) is to reduce the incidence of TB by 20 percent from 200/100,000 population in 2019/20 to 160/100,000 population by 2024/25. The NSP identified interventions for the general population, children, people living with HIV (PLHIV), and other high-risk populations based on a person-centered approach. It also highlights the following areas of strategic focus that will enable the achievement of the objectives: (i) strengthening community systems with a focus on reaching high-risk populations that drive the epidemic; (ii) strengthening public-private partnerships (PPP); (iii) strengthening diagnostic and treatment services, including the adoption of new technologies, drugs, and approaches; (iv) supporting information management, including digital technology; (v) strengthening supply chain management; and (vi) strengthening leadership and accountability, plus resource mobilization and multisectoral collaboration.

With technical assistance from WHO, Uganda conducted a mid-term review of the current TB NSP (2021-2025) from April 17 to 28, 2023. Findings from the review showed that Uganda was on track to achieve the United Nations High-Level Meeting (UNHLM) TB targets, except for identifying individuals with multidrug-resistant TB (MDR-TB) and TB preventive therapy (TPT) for TB contacts under five. The NTLP and partners will use the review findings to strengthen implementation over the remaining NSP period.

The proposed FY 2023 USAID TB budget for Uganda is \$8 million. With this level of funding, USAID will support the following technical areas.



## REACH

### *TB diagnosis*

The primary strategy is to increase coverage of WHO-recommended rapid molecular diagnostic (WRD), currently at 70 percent compared with the 80 percent national target. Other challenges impacting TB diagnosis include high result turn-around time (TAT), delays in equipment maintenance, low frequency of visits by hub riders, and inconsistent TB laboratory commodity fulfillment rates by the National Medical Stores.

To address the above challenges and ensure Uganda meets WHO-recommended Universal Access to Rapid Diagnosis TB benchmarks, USAID will continue working with NTLT and other stakeholders to support quantification, timely procurement, and supply of laboratory equipment and commodity needs. USAID will continue supporting increased utilization of digital X-ray, computer-aided detection (CAD), improved connectivity solutions, and laboratory quality management systems through technical support to NTLT and the National TB Reference Laboratory (NTRL).

### *Engaging all care providers*

The scale-up of facility-based active case finding (ACF) toolkits contributed to increasing case notification. TB screening is integrated at the facility level within outpatient departments, inpatient units, HIV clinics, nutrition, pediatric, and maternal health service delivery units. In addition, TB survivors, cough monitors, and other community volunteers are trained to support systematic TB screening and contact tracing. USAID will continue supporting the NTLT and partners to integrate the Quality Improvement (QI) approach to improve the facility and community-based TB screening in all the funded districts and revitalize, orientate, mentor, and supervise healthcare workers at public, public-not-for-profit (PNFP), and public-for-profit (PFP) facilities. Furthermore, USAID will continue engaging Civil Society Organizations in monitoring TB service delivery and availability.

### *Community TB care delivery*

To identify all the missing TB cases within the communities, NTLT and partners designed and implemented a CAST-TB campaign. The NTLT leads the campaign with support from GFATM, USAID, CDC, DOD, implementing partners, and district local governments. Due to the robust CAST-TB campaign, TB case notification, treatment success rate, awareness, and post-campaign TB care seeking have increased. USAID will continue supporting NTLT in synthesizing the CAST-TB campaign's experiences to develop the CAST-TB Tool kit. USAID prioritized the need to harness lessons learned from all CAST-TB campaigns and perfect the approach to be more efficient and adaptable to sustain case detection, TB awareness, and integration with HIV case finding.

USAID will continue strengthening coordination, community-facility linkages, and the capacity of community volunteers and health workers to implement and report high-impact case findings,



contact tracing, and targeted door-to-door community screening. In addition, using TB communication materials developed by the USAID Social and Behavioral Change Activity, USAID will use interpersonal communication and mass media—e.g., TV, community radios, and social media—to improve awareness of TB prevention, diagnosis, and treatment services.

## **CURE**

### *Drug-susceptible TB (DS-TB) treatment*

In 2022, the national treatment coverage for TB was 116 percent (94,448/81,352) of the annually targeted, with 69 percent bacteriologically confirmed against the NSP target of 62 percent. The national scale-up plan to improve treatment success rate (TSR) through a quality improvement (QI) package focused on improving retention and engaging individuals with TB, all care providers, and the community in TB care delivery is paying off.

USAID will support activities to sustain quality improvement approaches to improve TB and TB/HIV clinical cascades. In addition, USAID will implement the following interventions: supporting patient appointment systems in all TB clinics, telephone reminder systems, and community-based drug refills, and scaling up differentiated TB service delivery. During the FY 2023/2024 implementation period, USAID will explore opportunities for integrating TB medicine dispensing in the community pharmacy refill model currently used for ARV delivery.

### *MDR-TB treatment*

During FY 2023/2024, USAID will provide technical support for adopting new WHO-recommended MDR-TB treatment regimens, including the six-month bedaquiline pretomanid linezolid moxifloxacin (BPaLM) and (BPaL) regimen. USAID will support MDR-TB TSR improvement through mixed facility and community care models, monthly clinical cohort review meetings on managing side effects, and clinical decision support for all MDR treatment units. Implementing facilities will be supported to monitor early warning indicators, conduct regular root cause analysis (RCA) for a loss to follow-up, conduct mortality audits, and take corrective actions.

## **PREVENT**

### *Prevention*

The country achieved 446 percent of the UNHLM targets by reaching 1,295,424 against the target of 297,029. With this achievement, 95 percent of PLHIV on ART have already received TPT. Moreover, the country achieved 128 percent (176,517/168,406) for five plus contacts of individuals with TB; however, only 68 percent (76,341/127,860) of the UNHLM targets were achieved for under five contacts of bacteriologically confirmed pulmonary TB cases. To address gaps in TB prevention efforts, USAID will sustain and expand the successful interventions, integration of TPT in the CAST-TB campaign, line listing of eligible clients for community initiation, integration of TPT into contact screening, community sensitization on the benefits of TPT, utilization of the operational guide for contact screening and Standard Operating



Procedures (SOPs) for community TPT provision and scaling up of QI change packages for TPT enrollment and completion. USAID will also support the procurement of 3HP to ensure the complete transition to a short TPT regimen through USAID PEPFAR funds, ensure that all eligible adults and children receive TPT at USAID-supported facilities, and strengthen toxicity monitoring systems.

## **INNOVATE**

### *Research*

USAID supported a Gender, Youth, and Social Inclusion (GYSI) analysis study to qualitatively evaluate the barriers and facilitators to access TB care in Uganda and community Directly Observed Therapy (DOTs) using community health workers. Although the research priorities are well outlined in the NSP, and more significant needs for evidence-based programming exist, lack of funding and limited operational research capacity at the sub-national level (RRHs) have hindered the implementation of the NTLP research agenda. Institutionalization and strengthening of operation research competency at the sub-national level will be a priority, particularly on advanced data analysis and utilization of existing data in DHIS2 and eCBSS for evidence generation.

### *Scale up of New Tools*

USAID supported the installation of 38 Truenat molecular testing machines at facilities and connected them to the connectivity system (LabXpert). Additionally, five Delft Light x-ray machines with five computer-aided detections (CAD4TB) are deployed in various facilities. Digital X-ray with CAD4TB in screening achieved a high presumption of TB (20 percent) and a diagnostic yield of 14 percent bacteriological confirmation. The males and PLHIVs are more likely to have confirmed TB; however, Truenat machines have low acceptability among laboratory personnel and are still waiting for WHO approval for multi-disease testing.

## **SUSTAIN**

### *Commitment and sustainability*

USAID supported NTLP in developing the Multisectoral Accountability Framework for TB (MAF TB). Through the TB MAF, USAID will support the Office of the Prime Minister's Steering and Coordination Committee and the MoH in guiding ministries to include critical TB interventions in their work plans and budgets, explore ways to position the TB agenda and required resources in national development plans, support parliamentary TB caucuses advocacy activities.

Notable MAF-TB achievements include 15 out of 19 initially targeted MDAs have appointed TB focal persons to coordinate the implementation of MAF-TB guidelines, the Ministry of Education and Sports issued a circular to promote TB prevention in schools, the Ministry of Works & Transport, Uganda Bus Owners Association), and Ministry of Internal Affairs implemented workplace TB activities.



### *Capacity and Functioning Systems: Procurement and supply chain management (PSM)*

USAID built the MoH Quantification Planning and Procurement Unit (QPPU) capacity in procurement planning, quantification, and inventory management. USAID seconded a TB supply chain advisor to the NTLP and helped the NMS improve its procurement planning and distribution. The TB medicines web-based ordering and reporting system module is in the official MoH health information system, DHIS 2. Health facilities can submit bimonthly orders to NMS to resupply TB medicines through this system. The National Drug Authority (NDA) leads and coordinates the overall implementation of patient safety monitoring and managing adverse events at all levels of care.

Working with NMS, MOH/QPPU, and regional implementing partners, USAID will address the following TB commodity challenges: stockout of commodities at the health facility level, suboptimal NMS order filling rates or delayed deliveries, suboptimal adherence to the web-based TB ordering system by PNFP sites, and gaps in implementing facility-based electronic Logistic Management Information Systems (eLMIS).

TB medicines and laboratory supplies have an annual budget of approximately \$23 million, funded by the Government of Uganda, the Global Fund, and PEPFAR for selected supplies. An estimated annual funding gap of \$24 million is mainly for TB Prevention and diagnostics.

### *Monitoring and evaluation (M&E) and Health Management Information Systems (HMIS) [and implementation of the Performance-Based Monitoring and Evaluation Framework (PBMEF)]*

USAID will continue to work with NTLP, RRHs, districts, and health facilities to address challenges in M&E, including data quality, timeliness, completeness, and the lack of capacity to use data for decision-making. USAID will also continue to support the eCBSS scale-up and other M&E activities, including quarterly and annual review meetings at all levels, quarterly mentorship, supervision, and data quality audits. USAID will also work with NTLP to develop a repository portal for partners to share their reports.

The national DHIS2 data management system, with data entry done at the facility level, includes TB service indicators. With the help of partners, the NTLP strengthened its M&E. Data validations are done quarterly across all regions, technical working groups for M&E meet quarterly, and the SOPs for DHIS2 reporting (cleaning data to improve its quality) are available. In addition, national and regional performance reviews are held every quarter, leading to increased data use for planning and guideline implementation.

### *Human Resources for Health (HRH)*

USAID is providing technical assistance to the MOH in improving HRH management systems. This support staff has revised staffing norms to accommodate more numbers and skills. The availability of doctors, nurses, laboratory personnel, and midwives improved steadily over time in Uganda. The government also invested in improving health worker distribution across the



regions by increasing the number of public positions proportional to the health workforce density of the areas. In addition, GOU enhanced the salaries of all public health workers by twofold on average. Despite the above improvement, absenteeism, efficiency, and delays in implementing revised staffing norms remain challenging and require continued technical assistance and advocacy.