



TANZANIA TUBERCULOSIS ROADMAP OVERVIEW, FISCAL YEAR 2024

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

TB remains a significant public health challenge in Tanzania, with 128,000 estimated cases and 18,100 deaths in 2022. Malnutrition, HIV, alcohol use disorders, smoking, and diabetes mellitus remain the major attributable factors for TB. The estimated TB incidence rate has decreased 36 percent since 2015. This is in part attributable to a notable 71 percent decrease in TB/HIV incidence rates associated with increased access to antiretrovirals (ART); in 2022, 99.5 percent of people with both TB and HIV were on ART. Despite service delivery disruptions from COVID-19, TB notifications remained stable and have now surpassed pre-COVID levels to reach the highest number of notifications recorded.

The National Strategic Plan (NSP) for TB Elimination in Tanzania 2017-2025 puts forward bold strategies with commensurate resources to rapidly decline TB in the country by 2025 in line with the global End TB targets and Sustainable Development Goals to attain the vision of TB-free Tanzania. The focus of the Plan aligns with the USAID's Global Tuberculosis (TB) Strategy 2023–2030, which emphasizes reaching every person with TB (both drug-susceptible (DS-TB) and drug-resistant (DR-TB), curing those with the disease, preventing the spread of new infections and progression from infection to active TB disease, and sustaining the gains through innovation and systems strengthening. The key defined interventions for the NSP are strengthening and scaling up high-impact approaches in the areas of quality improvement (QI) for TB case finding and continuity of care, community systems strengthening (CSS), productive engagement of other providers in TB services, strengthening diagnostic networks, expanding quality TB services among at-risk populations, and maintaining the achievements on DR-TB and TB/HIV. Furthermore, the NSP addresses social, economic, human rights, and gender-related issues vital to ending TB. An addendum to the NSP is being developed to emphasize the scale-up of interventions, accelerate policy adoption, and define coordination and collaboration of TB services in a multi-sectoral approach.

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

REACH

TB diagnosis

The TB diagnostic network in Tanzania has four 10-color ultra/RIF/XDR machines and five-line probe assays used in genotypic drug susceptibility testing (DST) for MDR/XDR diagnosis in



addition to molecular assays. Moreover, the country has four Mycobacteria Growth Indicator Tube (MGIT) machines, a liquid culture-based phenotypic DST, test for drug resistance without reliable molecular tests. In 2022, only 1,395 samples were sent for culture and DST, mainly from regions with the highest notifications in DR-TB. Proposed interventions for USAID support in FY 2023 include the following:

- Operationalizing the revised TB screening and diagnostic algorithm to include chest X-ray and urine lateral flow lipoarabinomannan (LF-LAM).
- Re-defining the sputum referral system and identifying cheap and local solutions to improve specimen referral for TB molecular diagnosis in USAID-supported regions.
- Continuing supporting external quality assessment (EQA) and laboratory management systems to improve timely diagnosis, biosafety, and reliable results.
- Supporting adoption of non-sputum-based technologies and integrated TB diagnostic solutions, including scaling up stool specimens for TB diagnosis in children and using urine LF-LAM.
- Increasing coverage and usage of second-line DST.
- Supporting implementation of multi-disease testing strategy for TB and other diseases with clearly defined national protocols.

Engaging all care providers and the linkages among care providers

Implementing quality improvement (QI) interventions has improved TB case detection since 2018. These include capacity building in TB screening for healthcare providers, engagement of health facility administrators to supervise and monitor progress, engaging district TB coordinators to ensure availability of screening tools, and linkage of TB presumptive cases to diagnosis and care clinics. In the efforts to address the existing challenges in TB case finding at the facilities, proposed interventions for USAID support in FY 2023 include the following:

- Scaling up facility-based QI initiatives for TB case finding in all service entry points, including reproductive child health clinics, diabetic clinics, malnutrition wards, methadone clinics, outpatient clinics, and in-patient wards.
- Integrating optimized provider-initiated testing and counseling (oPITC) with TB screening and linkages at the facility and deploying individuals who formerly had TB for TB screening in non-PEPFAR-supported facilities.
- Sustaining meaningful engagement of traditional healers and Accredited Drug Dispensing Outlets (ADDOs) dispensers in finding individuals with TB through screening and



linkage to TB services. All registered traditional healers and high-volume ADDOs with at least 20 clients daily will be engaged.

- Scaling up engagement of private health facilities in TB case-finding activities.

Community TB care delivery

Ending TB by 2030 will not be possible without extending services beyond health facilities.

Community TB case finding involves active case identification through door-to-door screening for children and adults. TB screening in hotspot areas (marketplaces, artisanal mining sites, old people's homes, and fishing camps), congregate settings (prisons, remands, boarding schools), and cross-border for immigrant populations have increased reach to people with TB. TB contact screening and investigation at the household level for all individuals bacteriologically confirmed with pulmonary TB has also been implemented. Community healthcare workers (CHWs) are key in implementing the TB community services. In addition, education on TB and social network sensitization has also been implemented to raise awareness about the disease. The national program has expanded outreach TB screening and diagnosis services using five mobile vans. In FY 2023, the USAID funds will support the following focused interventions:

- Sustaining active TB case-finding activities in hotspot areas through door-to-door TB screening in councils with high TB notification using CHWs; marketplaces and cross-border TB screening initiatives will be integrated with other existing health programs in supported regions.
- Adopting and scaling up systematic implementation and monitoring of TBCI through capacity building of CHWs on specimen collection, storage, and transportation. In addition, a revised package on TBCI will be operationalized in USAID-supported regions, and close monitoring of contacts identified and evaluated will be monthly. Reversed TBCI will be implemented to understand the source of infections, especially in children diagnosed with TB.
- Supporting TB hotspot areas with mass education on TB, periodic edutainment campaigns, and other social behavior change communication (SBCC) efforts, such as off-road banners and community radio spots.
- Deploying mobile clinics only in low-performing councils, with clearly established procedures for specimen referral, TB diagnosis, and client linkage to TB clinics.
- Supporting 37 prisons (29 percent of the country's 127 prisons) with comprehensive and routine TB screening and treatment services. USAID will further advocate that the NTLF operationalize the Multi-sectoral Accountability Framework and ensure all prisons have comprehensive and routine TB screening services.



- Conducting periodic campaigns on TB health education, screening, and linkage to TB care will be supported in artisanal mining sites within the USAID-supported regions.
- Building the capacity of CHWs and healthcare providers to intervene in community rights and gender.
- Scaling up implementation of community-led monitoring (CLM), analyzing information collected, and designing actions to address the challenges facing individuals with TB, including stigma and discrimination.

CURE

Drug-susceptible TB (DS-TB) treatment

The country has been slow in adopting globally recommended policies; the shorter TB treatment regimen for non-severe illness in children has yet to be adopted in the country. There have been limited efforts to support individuals with TB to quit smoking or reduce alcohol use due to a lack of guidelines to implement these interventions. USAID will address the remaining DS-TB treatment gaps through the following:

- Implementing person-centered interventions for children and individuals previously treated with TB in care in USAID-supported regions, including nutritional counseling and drug adherence monitoring to minimize loss to follow-up.
- Improving monitoring of the TB care cascades to identify gaps and take immediate actions. Implementing partners will be asked to report the whole cascade of treatment for bacteriologically confirmed and individuals clinically diagnosed with TB.
- Implementing death audits in councils with the highest proportion of TB deaths in a cohort.
- Advocating for and supporting the adoption of new, reduced-duration regimens for managing children with non-severe TB.

DR-TB treatment

The country has yet to adopt a newer BPaLM DR-TB treatment regimen as recommended by WHO. TB is often associated with depression and stigma. Yet, there is no package available for mitigation, including re-integration of individuals with TB into the community and rehabilitation for those suffering from post-DR-TB chronic sequela. Cohort review meetings have been inefficiently used to update patient information in the register rather than discuss complex cases. In FY 2023, the USAID will continue with efforts to improve DR-TB treatment services through the following:

- Supporting review and operationalization of standard operating procedures (SOPs) to improve cohort review meetings.



- Strengthening active TB drug safety monitoring and management systems for all anti-TB medicines, mostly in all the DR-TB treatment sites.
- Continuing the capacitating of relevant healthcare providers and TB coordinators at the council level to manage and monitor individuals with DR-TB.
- Enhancing implementation of social protection and psychosocial support to individuals with DR-TB.
- Building the capacity of healthcare providers, treatment supporters, CHWs, and ex-individuals with TB to provide psychosocial support, adherence counseling, and community re-engagement post-treatment.
- Supporting the adoption and transition to the BPaLM regimen once approved for use in Tanzania.

PREVENT

Prevention

Infection prevention is the primary measure to prevent TB, and literature¹ shows that HCWs are at significant risk of TB infection; there are gaps in TB infection prevention activities for healthcare providers and individuals in the facilities. This is worrisome, given that seven percent of the individuals with TB notified in 2022 were from the inpatient department, and 40 percent of individuals with TB were from the outpatient department. This poses the risk of continued transmission if no deliberate measures are implemented. In FY 2023, USAID will support the following to prevent or treat TB infection in health facilities:

- Implementing comprehensive infection prevention and control measures, including personal protective equipment, HCW surveillance and safety measures, and interventions to interrupt the chain of transmission in high-risk settings or among high-risk populations in all supported regions in the country.
- Supporting advocacy and social behavior change communication on TB prevention for high-risk populations (in slums, mines, and schools).

INNOVATE

Research

In Tanzania, USAID has supported applied TB research and dissemination of the findings. USAID has also supported evaluating and validating Truenat technology and its dissemination to key stakeholders. The country's pace and capacity for conducting TB research and rapid policy adoption are limited due to the lack of dedicated funding for TB research and dissemination of

¹ <https://erj.ersjournals.com/content/erj/53/4/1801789.full.pdf>



research findings to inform program improvement. There is no national system to monitor ongoing studies nor a repository of completed TB research to base advocacy efforts or planning for future research investment. There are frequent changes in the Ministry of Health leadership, even at the program level, which delay vital processes. In FY 2023, the USAID proposes to fund the following research activities:

- Implementing operational research on latent TB testing and linking TPT to adults in regions with mining communities and higher notifications, such as Arusha and Manyara.
- Implementing research activities on TB immunological testing for children with clinical diagnosis to identify probable TB cases.
- Establishing the national repository of TB research data.
- Supporting efforts to disseminate TB research findings to stakeholders.

Scale up of new tools

In 2018, the UN HLM on TB underscored the need for better tools to end TB. The national TB research agenda has been updated, and USAID has supported training 30 national super-users and 50 end-users from 30 facilities on Truenat molecular assays. The country is considering scaling up the use of chest X-rays with artificial intelligence (AI) for TB screening. There are 212 X-ray machines in the country, of which 37 are digital. Through this current Global Fund (GF) grant, 17 digital X-ray machines will be installed with Artificial Intelligence. In FY 2023, the USAID proposes to fund the following activities for the scale-up of new tools:

- Continue supporting the training of laboratorians on using the Truenat and GeneXpert platforms.
- Procuring and installing four Artificial Intelligence for digital chest X-rays in Songwe, Manyara, Iringa, and Dodoma to improve TB screening.

SUSTAIN

Commitment and sustainability

Inadequate resource allocation for TB preventive and control services remains a major challenge. Engagement of the private sector to support TB services is minimal, and the multi-sectoral accountability framework (MAF) is not yet operational. Few local organizations are willing to participate in TB control activities in the country.

In FY 2023, USAID plans to support the implementation of the following interventions to address commitment and sustainability for TB services:

- Continuing capacity strengthening for program management, with advocacy activities on resource allocation for TB at the council level and capacity building of TB coordinators.



- Improving mechanisms and activities to promote inclusiveness and involvement of community-based organizations, civil society, medical councils, and professional associations in the TB response.
- Improving management and implementation of GF grants by embedding advisors in the national program.
- Supporting operationalization of MAF TB, capacitating the TB Caucus to advocate for a larger domestic allocation to TB services, and monitoring STOP TB partnership implementation progress.

Capacity and functioning systems

Electronic logistic management information systems (e-LIMS) for TB laboratory commodities have yet to reach their full potential; hence, in most instances, supply plan and replenishment is not informed by consumption data. There is limited implementation of pharmacovigilance activities and an emphasis on paper-based reporting despite the availability of a national electronic system (VigiFlow). This affects data use and action. In FY 2023, USAID plans to support the implementation of the following proposed interventions to address procurement and TB supply chain issues:

- Improving existing quantification tools and strengthening the capacity to quantify TB laboratory commodities and use e-LMIS for TB laboratory commodities.
- Sustaining efforts on active drug safety monitoring (aDSM) to ensure the quality of TB care to individuals.
- Collaborating closely with the GF country team to ensure continuous availability of all key TB commodities for TB diagnosis, treatment, and prevention.
- Integrating TB reach and cure interventions with other chronic lung and non-communicable diseases in four regions for comprehensive person-centered care.

Monitoring and evaluation (M&E) and Health Management Information Systems (HMIS)

In FY 2023, USAID proposes to support the following:

- Strengthening capacity for data recording, reporting, and use at the facility and community levels, including linkages and monitoring cascade of individuals with TB from case finding to treatment outcome.
- Ensuring relevant tools are in place for collecting all ten core TB indicators and a few selected extended indicators.



- Integrating the TB community reporting system with the national Unified Community Systems (UCS).
- Transitioning fully to Aspect connectivity for TB molecular testing and supporting efforts to ensure linkage to surveillance and/or clinical management systems.
- Implementing a situation room to monitor TB molecular testing and DR-TB notification for timely identification of gaps and actions.

Human resources for health (HRH)

Addressing human resources challenges requires joint efforts among stakeholders, bold national policies, and high-level commitment from the top national leadership. USAID proposed interventions for FY 2023 include:

- Continuing supporting TB services staff at the national and sub-national levels, exploring a sustainable approach for government absorption of the staff.
- Advocating for developing online TB training materials and applications to enhance healthcare workers' capacity and skills in delivering TB services, especially on TB M&E and TB Program Management.
- Improving access to TB national guidelines, policies, and other relevant information by developing an online platform
- Supporting operationalization of task-sharing policy in delivering TB services outside TB clinics.