



BANGLADESH TUBERCULOSIS ROADMAP OVERVIEW, FISCAL YEAR 2024

This is an overview of the USAID/Bangladesh 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.

In 2022, the estimated TB incidence was 379,000, and an estimated 42,000 people died from TB. Bangladesh notified 261,957 incident TB cases in the same year for a case notification rate of 69 percent. In 2022, 75 percent of the notified TB cases were bacteriologically confirmed; among those bacteriologically confirmed individuals with pulmonary TB, 37 percent of new cases and 100 percent of previously treated cases were tested for rifampicin resistance. Among the 1,283 individuals diagnosed with rifampicin-resistant (RR) and multidrug-resistant (MDR) TB in 2022, 1,267, or 99 percent, were enrolled in treatment.

The National TB Program's (NTP) National Strategic Plan (NSP) is currently under revision and aligns with the WHO's End TB Strategy. The NTP plans to focus on the following key activities: 1) early diagnosis of all individuals with TB at the first interface, be it an upazila health facility, community clinic and community health workers (CHW), graduate providers, non-graduate providers, pharmacies or laboratories; 2) reducing community and facility TB transmission by implementing prevention strategies that include contact investigation, TB infection treatment for risk groups, and airborne infection control, and 3) treating individuals with TB with the best available regimen options along with suitable patient support systems including transportation coverage and nutritional support during the period of diagnosis and treatment.

The proposed FY 2023 USAID TB budget for Bangladesh is \$22 million. With this level of funding, USAID will support the following technical areas:

REACH

TB diagnosis

The NTP's TB diagnostic network in Bangladesh consists of one national TB reference laboratory (NTRL), five regional TB reference laboratories (RTRLs), 477 GeneXpert sites with 518 machines in use, 38 Truenat assay, and more than 1120 facilities with microscopy capability. The NTRL and RTRLs have Line Probe Assay (LPA), *Mycobacterium tuberculosis* culture, and Drug Sensitivity Testing (DST) on solid and liquid media with six Mycobacteria Growth Indicator Tube (MGIT) machines.

USAID continues to support the NTP's efforts in increasing TB, MDR-TB, and child TB case detection by ensuring improved bacteriological confirmation of cases with rapid molecular



diagnostics. USAID also supports the NTRL and the RTRLs in properly exercising their roles in providing technical support and performance oversight of rural laboratories (GeneXpert and microscopy sites). USAID is currently supporting the testing of next-generation sequencing (NGS) to incorporate it into the diagnostic algorithm, and the activities proposed for FY 2024 are outlined below:

- a) USAID will support strengthening the functional and accessible specimen referral and transport system(s).
- b) USAID will support establishing a connection between laboratories and health facilities to ensure the test results are delivered swiftly and precisely to the physicians for optimal clinical management.
- c) USAID will continue to advance the use of chest X-rays (portable and ultra-portable X-rays with computer-assisted diagnostic (CAD) software) for diagnosing TB cases by scaling up the availability of X-rays and building capacity for their use.
- d) USAID will support optimizing the use of WHO-recommended molecular diagnostic technologies (GeneXpert, Truenat) by providing training and technical assistance in maintenance, logistics, and supply management.
- e) USAID will continue to develop and implement the external quality assurance program to ensure compliance with existing international standards of laboratory diagnostics.
- f) USAID will improve existing logistic and supply chain information management systems to track laboratory needs and operational requirements.
- g) USAID plans to collaborate with the One Health laboratory system to integrate the One Health and TB laboratories by strengthening their capacity.
- h) USAID will also integrate TB care with maternal and child health counterparts to reach under five years old children and pregnant women for TB diagnosis.
- i) USAID will work to integrate private sector providers and laboratories into the national TB diagnostic and care network to ensure that the individuals diagnosed in the private laboratories are reported to the national tracking system and linked to the national treatment and care system.

Engaging all care providers

USAID supports active case finding (ACF) through facility-based intervention across 49 secondary and tertiary healthcare facilities in districts of Rajshahi, Sylhet, Dhaka, and Chattogram divisions. USAID also partners with the Diabetic Association of Bangladesh



(BADAS) network, a non-formal private providers' network and social marketing company, to conduct active TB screening among individuals with diabetes. USAID also supports active TB screening within TB screening treatment centers (TBSTC), a Social Enterprise Model (SEM) for TB care in the private sector, integrated management of childhood illness (IMCI) corners of health facilities and tea gardens. USAID also supports TB Contact Investigation (TBCI) to find additional TB cases through all programmatic activities. USAID will continue working in the following areas in FY 2024:

- **ACF among children and adults:** USAID will continue to support the screening, referral, and diagnosis of children and adults at tertiary, secondary, and primary care facilities, including the BADAS SMC network and TBSTC.
- **Non-respiratory specimens GeneXpert testing for childhood TB:** USAID will continue to support activities for the detection of childhood TB that include the collection and transport of stool samples for testing with GeneXpert Ultra, as well as testing of non-respiratory specimens (lymph nodes aspirate, gastric lavage, and other fluids and tissues).
- **Programmatic Implementation of TB Contact Investigation (TBCI):** USAID will expand its field footprint to ensure contact investigation is conducted in its geographical focus areas with the implementing partner working on case finding. USAID will support the NTP to strengthen monitoring and evaluation (M&E) tools for data collection, analysis, sharing of key TBCI indicators and program based operational research to generate evidence and inform policy.
- **Mandatory reporting among private providers:** USAID will continue to use the Janao application among private providers to increase TB case notifications from the private sector.
- **Integrate with maternal and child care:** USAID will gather and evaluate evidence on TB care in pregnancy to recommend better practices and develop strong policies addressing TB screening/diagnosis, prevention, treatment, or follow-up/supervision/counseling activities/services for pregnant women.

Community TB care delivery

USAID has succeeded in forging vital partnerships that have permitted community-based ACF. USAID will continue to work with the non-informal health providers—Blue Star Providers (BSPs), Green Star Providers (GSPs), and Gold Star Members to conduct TB screening and referrals in urban and rural communities. USAID will work with local partners to identify presumptive TB cases in 184 tea gardens in Sylhet. USAID will also work in slums to screen and



refer presumptive TB cases for testing in Dhaka, Chattogram, and Sylhet by staff from surrounding TBSTCs through door-to-door visits and TB screening camps.

In FY 2024, USAID will expand community-based ACF coverage into new geographical areas, increase field efforts with needed staff, and continue implementing interventions that deliver results. USAID will also increase investment in social behavior change interventions to promote health-seeking behaviors that increase the uptake of TB healthcare services among individuals living in rural communities.

CURE

Drug-susceptible TB (DS-TB) treatment

TB treatment in Bangladesh, provided through community health workers, has a successful DOTS provider network, maintaining a treatment success rate (TSR) of more than 90 percent for more than two decades. USAID continues supporting the NTP to maintain the high success rate of DS-TB treatment.

In FY 2024, USAID will support in the following areas:

- USAID will continue to support the testing of 99-DOTS aimed at using straightforward phone devices to track the daily intake of TB medicine for individuals with TB (iNTP) to improve treatment adherence.
- USAID will integrate TB care with nutritional services by supporting the enrolled eligible individuals with TB in the government's available social welfare schemes (nutrition-related).
- To ensure the quality of TB drugs, USAID will work with the Directorate General of Drug Administration and NTP to develop a risk-based post-marketing surveillance sampling and testing protocol for TB medicines.
- USAID will continue to provide technical support to ACI HealthCare Limited (AHL) towards prequalification of first-line anti-TB medicine (4FDC).
- USAID will also complete the assessment of prescription and uncontrolled availability of TB medicines in the open market. The findings will be used to advocate for regulating the marketing of anti-TB medicines.

Multidrug-resistant TB (MDR-TB) treatment

In FY 2024, USAID will focus on increasing access of people with DR-TB to quality-assured and prompt diagnosis and treatment care. USAID intends to expand the programmatic management of DR-TB to additional divisions, districts, and upazilas; specific interventions and activities are listed here:

- **State-of-the-art services for individuals with DR-TB:** USAID will continue its support to the OSTBC at the Shyamoli Hospitals and operationalize two additional OSTBCs in Rangpur and Rajshahi division, which will serve as the hubs for DR-TB case management training and mentoring.
- **All-oral DR-TB treatment regimens:** USAID will continue to work to accelerate the scaling-up of all oral DR-TB treatment regimens, especially shorter regimens containing Bedaquiline.
- **Ambulatory DR-TB Management:** USAID will intensify the implementation of decentralized care at secondary-level healthcare facilities to increase initiation of DR-TB treatment.
- **Active Drug Safety and Monitoring (aDSM):** USAID will train clinicians and other clinical personnel to manage serious adverse events resulting from DR-TB drugs. USAID will also increase efforts to improve and expand recording and reporting on aDSM through e-TB Manager.
- **DR-TB and COVID-19 co-infection testing and management:** USAID/Bangladesh will continue to support the implementation of protocols to diagnose and treat individuals with DR-TB and COVID-19.

PREVENT

Prevention

USAID supported the NTP in refining the TPT policy, SOPs, and training materials on LTBI and TPT. The country recommends the use of shorter-duration regimens with combination drugs. (i.e., 3HR). USAID efforts successfully launched TPT in TBSTCs throughout seven upazilas in two districts of Dhaka. These efforts are gradually expanding into additional districts, and The following are areas for USAID involvement:

- USAID will support the NTP's Expansion Plan for Tuberculosis Preventive Therapy in Bangladesh. This work will include training healthcare staff in the NTP network (DOTS corners), private sector, and hard-to-reach communities.
- USAID will support the NTP in systematizing contact investigation and TPT data recording and reporting using e-TB Manager.
- USAID will design and implement a flexible contact management accompaniment (CMA) approach that would allow the team to support arrangements customized for each family's circumstances and includes a family-centered discussion and shared-decision making.



SUSTAINABLE SYSTEMS

Commitment and Sustainability

USAID and the Government of Bangladesh (GoB) signed a Statement of Partnership in FY2019 to facilitate development assistance to the NTP and establish commitments by both parties to eliminate TB. USAID is strengthening local capacity to manufacture first-line TB drugs locally to increase sustainability. These efforts provide technical assistance in the pre-qualification processes, including developing robust regulatory systems. Procuring pre-qualified drugs locally will produce cost savings for national budgets, with the potential to redirect funds for other NTP activities and priorities. USAID will continue working with NTP to bring policy-level changes to enable the GOB entities to procure services from non-GoB entities, given the GOB's limited coverage to reach all Bangladeshis.

Capacity and functioning systems

USAID will support the following areas:

- USAID will provide technical assistance to the NTP to assess government storage facilities and those of implementing partners.
- USAID will provide technical assistance to the NTP and the Health Economics Unit to prepare for government-led and government-financed TB contracting.
- USAID will continue supporting the NTP using e-TB Manager and ensuring TB patient tracking. USAID will provide technical assistance to ensure the transition of the e-TB manager from the partner to the NTP.
- To attract the next generation of public health professionals and bio-medical researchers into TB, USAID will provide professional fellowship opportunities in TB-related research topics.

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

USAID assessed the NTP data collection capacity and the challenges in implementing a performance-based monitoring and evaluation framework (PBMEF). Based on that, USAID will continue providing technical assistance to the NTP to implement PBMEF and continue strengthening the e-TB manager system and laboratory Information Management System (LIMS).

Human Resources for Health (HRH)

The NTP's HRH capacity and workforce numbers have consistently remained low. USAID provides technical assistance to the NTP in developing an Education and Training Unit, including a training management information system, and will improve planning, implementation, and



oversight of all training initiatives within the NTP. USAID will engage academic institutions, including public and private universities, to create professional fellowship opportunities in TB-related research topics.