



## PAKISTAN TUBERCULOSIS ROADMAP OVERVIEW, FISCAL YEAR 2023

This is an overview of the USAID/Pakistan FY 2023 Tuberculosis (TB) Roadmap, implemented with the FY 2022 budget. Through the annual TB Roadmap process, USAID has worked with implementing partners (IPs) and national and international TB stakeholders involved in TB prevention and care in the country.

In 2021, the estimated TB incidence in Pakistan was 611,000, and an estimated 50,000 (48,000 Excl HIV) people died from TB. Pakistan reported 339,256 case notifications. During 2021, more than 91 percent of individuals with bacteriologically confirmed TB were tested for rifampicin resistance. A total of 3,138 people were diagnosed with drug-resistant TB (DR-TB), and 2,878 (92 percent) were put on treatment.

The National Strategic Plan (NSP) 2020-2023 aims to have a TB-free Pakistan with zero deaths, diseases, and poverty caused by TB. The mission is to end the TB epidemic in Pakistan by 2035, with the goal of getting back on track to end the TB epidemic by 2030. Therefore, the National TB Program (NTP) aims to treat at least 1.6 million tuberculosis cases successfully by 2030. To achieve these targets, the NTP focuses on:

- Ensuring engagement of Basic Health Units (BHUs) in TB control, including referrals of presumptive cases to a diagnostic facility, a reliable systematic mechanism for the transport of sputum specimens, engagement of lady health workers (LHWs) in case finding and treatment monitoring, intensified hospital directly observed treatment (DOTS) linkages, contact tracing, partnerships with community-based organizations (CBOs) in finding and treating cases, improved advocacy and communications to improve awareness of public and health workers.
- Expansion of private general practitioners from five to 20 percent.
- Involvement and training of informal private sector representatives such as hakim, pharmacists, and homeopathic clinic staff to address 24 percent of people seeking health care through this cadre.
- Increasing sensitivity of diagnostic algorithms through enhanced use of MTB/RIF GeneXpert for diagnosis of TB using X-ray as an initial screening tool.
- Development of locally made sputum transport system for sample transport from BHUs to the diagnostic facility and GeneXpert site.
- Strengthening of NTP to provide organizational, management support, strategic and technical policy guidance to provinces and regions. Strengthening M&E activities through developing training curricula and capacity building, establishing research priorities, and coordinating foreign and domestic funding for TB efforts.
- National prevalence survey to accurately estimate TB burden and expansion of case-based web-based electronic reporting systems through the national level rollout of District Health



Information System 2 (DHIS-2).

- Secure and sustain political commitment for increased and sustainable TB financing through domestic resources and adopt a multisectoral approach with an accountability framework

**The proposed FY 2022 USAID TB budget for Pakistan is \$14 million. With this level of funding, USAID will support the following technical areas:**

## REACH

### *TB diagnosis*

**Only 25 percent of the TB management Units (TBMU) are equipped with GeneXpert. USAID plans to improve access to GeneXpert testing for people seeking health care from facilities not equipped with GeneXpert. The following are the proposed areas for USAID support:**

- Scale-up of GeneXpert machines at the sub-district level.
- Developing a robust sputum transport system with designated human resources and convenient mobility solutions.
- Scale-up of digital X-ray machines to facilities with high outpatient department volumes.
- Scale-up of culture laboratories and the capacity to perform line probe assay (LPA) for high-burden provinces. Due to limited drug-sensitive test (DST) capacity (other than Rifampicin), services are systematically not accessible to all Rifampicin-sensitive individuals with a history of previous TB treatment.
- Strengthening the capacity of the National Reference Laboratory in Research, surveillance, and quality assurance in collaboration with international technical partners.
- Strengthening the technical capacity of provincial reference laboratories; there is high fluoroquinolone resistance in Pakistan among individuals with Rifampicin-resistant TB (RR-TB), and in 2020, all-oral treatment regimens for RR-TB (Bedaquiline, delamanid, clofazimine) were introduced, and the capacity for testing new drugs is limited to the National Reference Laboratory (NRL).
- Supporting a drug-resistance survey for estimating disease burden at the provincial level. The National Drug Resistance Survey (DRS) was conducted in 2012-2013 but does not provide prevalence estimates in each province. Routine data indicates a difference in the prevalence of Rifampicin and Fluoroquinolone resistance between provinces.
- Supporting capacity building of laboratory human resources regarding the provision of diagnostic and coordination services.
- Providing technical assistance to revise diagnostic algorithms considering revised screening tools.
- Supporting digital X-ray capacity building for healthcare workers.



### *Engaging all care providers*

In Pakistan, as per the National Strategic Plan, an estimated 84 percent of people seek initial health care from private sector providers (24 percent with informal providers, and 61 percent with formal providers). USAID is planning to support the following areas:

- Establishing active case-finding strategies in high-risk populations through mobile vans to assist prisons, internally displaced people, refugee camps, madrassas, elderly, orphanages, transgender people, mental hospitals, hospital staff, and orphanages.
- Supporting enhanced case finding by placing screeners in large private hospitals. Tertiary care and district headquarter hospitals are critical BMUs where TB cases are diagnosed but fail to get registered.
- Establishing hospital-directly observed treatment (DOTS) linkages; placing screeners in these hospitals at inpatient, outpatient, and triage areas; referring individuals to a quality diagnosis; and establishing interdepartmental coordination.
- Supporting technical assistance and piloting of contact investigation with well-structured policy guidelines and well-defined implementation strategies.
- Supporting sputum transport with community riders and by hiring tehsil-level assistants.
- Providing technical assistance and piloting in selected districts to accelerate TB preventive treatment TPT implementation, as programmatic management of TPT is extremely challenging, with private and public sectors far from achieving targets, and there are implementation challenges, including financial limitations.
- Implementing mandatory case notification through the district health administration.
- Supporting TB drug manufacturers for WHO-Prequalification to curb the substandard and falsified medicines used by programs when procuring first-line drugs (FLDs) with domestic funding.
- Scale-up of private sector involvement in finding missing cases via pharmacy interventions in the country's big cities, at minimum.

### *Community TB care delivery*

The NSP 2020 includes various approaches to bring TB services to communities; community-based activities in the form of small gatherings, community functions, religious gatherings, and sports events can facilitate increased awareness among the community.

USAID can support this via:

- Scale-up of LHW engagement in areas untapped by the Global Fund and COVID-19 Response Mechanism (C19RM) funding.
- Scale-up of chest camps by meeting community leaders and community gatekeepers.
- Supporting community-based contact investigation.



- Strengthening of TPT for eligible contacts through community-based organizations;
- Sputum referral and transport to a health facility.
- Treatment monitoring through LHWs and prevention treatment, follow-up, and capacity building of community-based organizations.
- Develop context-sensitive awareness material on TB.
- Support mass media campaigns through electronic and print media for TB awareness.

## CURE

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

In 2021, NTP notified 339,256 out of an estimated 611,000 TB cases. Of these, 59 percent of these individuals were identified in public sector facilities and 41 percent in the private sector. USAID can further support efforts through the following:

- Supporting pharma industries to manufacture WHO-assured quality first-line drugs;
- Engaging primary health care (BHUs & dispensaries) in TB diagnosis and treatment;
- Building capacity of primary health care (PHC) workers.
- Technical assistance in developing digital DOT support tools.
- Developing a financial assistance package for individuals on drug-sensitive TB (DS-TB) treatment.
- Developing the implementation of childhood TB management guidelines.
- Capacity building and provision of screening kits to staff on TB diabetes screening.

### *Multidrug-resistant TB (MDR-TB) treatment*

With FY 2022 funding, USAID will continue to support the NTP through the following:

- Developing a robust sputum transport mechanism.
- Technical and financial support of BPAL and BpalM.
- Capacity building of staff at the District Head Quarters (DHQ) level for optimum DR-TB management.
- Capacity building of BHU staff on early referral and tracing individuals lost to follow-up;
- Providing technical support for PTP Balochistan and Punjab through Advisors.
- A provision of enhanced DR-TB package outcomes.
- The comprehensive rollout of aDSM with capacity building at the provincial level.
- A provision of technical assistance for video DOT.
- Support for a research study on managing comorbid conditions (Diabetes mellitus) in individuals with DR-TB.



## PREVENT

### *Prevention*

In 2019, with USAID's support, the NTP formed a guideline development group with relevant stakeholders to develop the first National TB Preventive Therapy (TPT) Guidelines. USAID also provided technical assistance in developing an operational desk guide for the TPT rollout. Areas for USAID support:

- Capacity building and sensitization seminars on TPT implementation for Health Care Staff
- Procurement of WHO-recommended diagnostics tests and newer (3HP) drugs for shorter duration
- Establishing private partnerships for contact screening through LHWs.
- Using digital X-rays for mass screening.

## SUSTAINABLE SYSTEMS

### *Commitment and sustainability*

The TB multi-sectoral accountability framework (MAF-TB) is an important intervention. It will help address the many social aspects of TB, going beyond the conventional health sector (e.g., within education, occupational health, military, and defense). This development also supports addressing TB comorbidities more effectively, e.g., providing social support through Bait-ul-maal (zakat) and helping curb poverty among those with TB. The government needs to strengthen mechanisms for TB stakeholders to collaborate and coordinate. In addition, Pakistan needs to (a) integrate more TB in primary health care (PHC), (b) scale up public-private partnerships (PPPs), (c) enforce mandatory TB notification acts, (d) implement TPT, and (e) provide full access to rapid TB diagnosis; Areas for USAID support include:

- Technical assistance in advocacy at the higher political level for a sustained financial contribution.
- Technical assistance to develop a multisectoral accountability framework to identify and secure sustainable domestic resources.

### *Capacity and functioning systems*

USAID will support technical units at the National level aimed at:

- Providing organizational/management support and technical guidance to provinces/regions on adopting newer technologies and approaches.
- Organizing Inter Provincial Meeting (IPM) funded by USAID for quarterly progress review.
- Provision of capacity-building training (Doctors/Paramedics/DOTS facilitators) for M&E,



DS-TB, DR-TB, and TPT rollout at the district/provincial level.

- Building stronger diagnostics and M&E systems through strengthening human resources.
- Supporting and helping roll out upfront Xpert testing in provinces and scaling it up to 80 percent.
- Providing federal and provincial/regional advisories on strategic issues and policy.

## Research

The NTP is committed to developing contextualized interventions to achieve Pakistan's END TB goals and targets. The implementation research informs us about the interventions' effectiveness, acceptability, feasibility, and efficiency. The NTP has encouraged its staff and partners to add an implementation research component to the innovation and intervention scaling activities. The NTP/PTPs and partners will continue to use the routinely collected data, supplemented by additional data collection, to uncover how to deliver more effective, efficient, and equitable TB/MDR-TB care. Multiple research activities are ongoing to assess local drug patterns and new TB diagnostics, e.g., acquired drug resistance to Bedaquiline, drug resistance surveillance, gene sequencing, 96 WELL plate DST, and blood for TB diagnostics. Among other studies, WHO-recommended all oral-modified shorter treatment regimens. The significant barriers to conducting operational Research and translating the established scientific evidence into a policy framework include the following:

- Issues regarding access to relevant data
- Funding issues
- Low sensitization at the policymaker level.

Areas for USAID Involvement include the following:

- Facilitation in Repeat National TB Prevalence survey.
- Facilitation in National Drug Resistance Survey and establishment of sentinel sites.
- Facilitation in BPAL treatment drug-resistant treatment.
- Provincial capacity building in Research.