



## INDIA TUBERCULOSIS ROADMAP OVERVIEW, FISCAL YEAR 2023

This is an overview of the USAID/India FY 2023 Tuberculosis (TB) Roadmap, implemented with the FY 2022 budget. The roadmap was developed in consultation with the National TB Elimination Program (NTEP) and with the participation of national and international partners involved in TB prevention and care in the country.

India accounts for about a quarter of the global TB burden. In 2021, the estimated TB incidence was 2,950,000, and an estimated 506,000 people died from TB. In 2021, India notified 1.96 million TB cases. During 2021, 76 percent of total notified individuals with bacteriologically confirmed pulmonary TB were tested for rifampicin resistance (RR-TB). A total of 58,837 people were diagnosed with drug-resistant TB (DR-TB), of which 53,037 (90 percent) were enrolled on treatment.

The National Strategic Plan (NSP) 2017-2025 in India 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 a TB-free India. Through this NSP, the NTEP aims to undertake necessary structural and procedural changes to ensure a robust, responsive, and agile TB response to safeguard and address concerns of individuals with TB and providers during times of complex emergencies and unprecedented crises. The following set of priority actions are included under the new NSP:

- Secure and sustain increased domestic funding commensurate with the enhanced requirements of this NSP.
- Continue addressing the *missing TB cases* with a focus on re-design and targeted active case finding efforts in priority populations.
- Ensure prompt diagnosis using high sensitivity diagnostic tests to provide universal access to quality TB diagnosis, including DR-TB in the country, and scale-up advanced diagnostics services and TB surveillance capacity by replacing sputum microscopy services with new precision diagnostic tools.
- Expand treatment and management of drug-sensitive TB (DS-TB) and DR-TB.
- Aggressively pursuing expansion of the online TB monitoring tool NIKSHAY and the related digital information ecosystem, complete with adopting and effectively applying artificial intelligence and analytics to drive efficient service delivery and responsive program management.
- Ensure full community participation and ownership through reliance on TB champions and TB survivors working alongside program staff in advocacy, planning, implementation, and monitoring local, state, and national TB response. Intensive efforts will strengthen



the local TB forums seen as effective change agents able to work at reducing and eliminate stigma and supporting TB care in a human rights response framework;

- Expand the social protection cover for people with TB and their families.
- Scale up and sustain engagement with private providers.
- Deploy and evaluate ambitious plans to implement TB preventive treatment (TPT) of households and other close contacts, children, people living with HIV/AIDS, and other locally defined high-risk groups using new, shorter regimens to reach an expected six million eligible persons annually by 2022.

The proposed FY2022 USAID TB budget for India is \$20 million, and with this level of funding, USAID will support the following technical areas:

## **REACH**

### *TB diagnosis*

USAID supported the NTEP to expand the national TB laboratory network to provide better access to quality-assured diagnostic services. By the end of 2021, 3,835 rapid molecular test instruments—GeneXpert and Truenat—conducted 3.6 million tests, and 21,820 peripheral microscopy centers conducted 8.2 million tests. The number of molecular tests doubled from 1.7 million in 2020 to 3.6 million in 2021.

In FY 2023, USAID will work with the NTEP in the following areas to establish and maintain a comprehensive, high-quality TB diagnostic network and increase DR-TB case finding:

- Institutional strengthening of the public sector network of TB laboratories to improve quality and efficiencies of the TB diagnostics care cascade in NTEP.
- Demonstrating private sector laboratories engagement for TB diagnostic care cascade and model for specimen transportation.
- Supporting Central TB division design, test, and scale up new TB diagnostics and monitoring tools.
- Supporting Whole Genome Sequencing and DR-TB Surveillance.
- Development of Artificial Intelligence (AI) tools to improve diagnostic processes, such as a cough sound-based TB screening tool, Line Probe Assay reading tool, X-ray reading and interpretation tool, etc.
- Evaluation of active case finding (ACF) strategies.



### *Engaging all care providers*

USAID supports the NTEP to engage with private providers and other TB-related programs, such as diabetes, HIV, tobacco cessation, and maternal health. In 2021, the private health sector notified 693,660 individuals with TB, the highest number ever of annual notifications from the private health sector under the NTEP. This contributed to 35.3 percent of total notifications, 45 percent of pediatric TB notifications, and 12 percent of DR-TB notifications. However, there are still some gaps such as low bacteriological positivity rates and low coverage of drug susceptibility tests in the private sector.

Following are areas for USAID involvement:

- Improve pediatric TB case detection by building the capacity of peripheral health facilities on pulmonary and non-sputum specimen collection procedures.
- Demonstrate private sector lab engagement for TB to ensure completion of diagnostic care cascade;
- Build capacity of all types of care providers in improving quality of diagnosis.
- Engage AYUSH (Ayurveda, Unani, Siddha, Homeopathy) practitioners to contact people with TB during their illness and linking them to X-ray services that are equipped with AI software.
- Provide Technical Assistance (TA) for contracting services from the private healthcare sector.

### *Community TB Care Delivery*

Efforts are being made under the NTEP to actively engage communities in program planning and design, service delivery, monitoring, and advocacy. The NTEP started active case finding through community screening and mobile vans. The NTEP also engaged elected representatives, local self-governments, civil society organizations, industries, and individuals affected by TB and their families. In 2021, about 223 million people were screened, yielding 73,772 additional individuals with TB detected through this community screening efforts. In addition, the NTEP improved contact investigation with the acceleration of TB preventive services in India. In 2021, NTEP carried out contact investigation by visiting households of 85 percent of pulmonary bacteriologically confirmed individuals with TB. Out of 1.5 million household contacts screened in a year, 4,377 people were diagnosed with TB. Moreover, the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Tribal Affairs (MoTA) signed a Joint Action Plan for Elimination TB, following which a TB Initiative was launched in March 2021. In 2021, NTEP notified 191,049 individuals with TB from notified tribal districts.

Summary of activities USAID will support in FY2023:

- Community-based case finding and outreach to vulnerable and marginalized populations, including a new focus on tribal populations.
- Health education, social norm shifting, population-based advocacy campaigns, and other efforts in social and behavior change (SBC) for TB elimination.
- Support in specimen collection and transport by community workers to improve access to diagnosis
- Determine the level of TB-related stigma and develop interventions to alleviate stigma; and
- Gender-based analyses and interventions.

## **CURE**

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

The NTEP has expanded free access to anti-TB drugs to individuals seeking care in the private sector. An overall treatment success rate of 85 percent for the 2020 cohort was accomplished among the total initiated on DS-TB treatment. The NTEP also made adaptations to support adherence during the COVID-19 pandemic, including door-stop drug delivery, active phone-based patient support, extending individuals' supply of drugs from two weeks to one month, and a range of other adaptations to support successful treatment. The NTEP will continue supporting individuals with TB support benefits through direct benefit transfer schemes. Under the NIKSHAY Poshan Yojana, \$3.8 million was transferred directly to TB patients' bank accounts during the course of treatment.

In FY 2023, USAID will support the NTEP to increase DS-TB treatment success by:

- Supporting the implementation of person-centered and context-dependent approaches to TB treatment.
- Reviewing the care cascade and using data from the review to improve the quality of TB care services.
- Supporting the Central TB Division in the design and implementation of research to evaluate the Direct Benefit Transfer—Nikshay Poshan Yojana: financial incentive of Rs.500/- per month for each notified individual with TB for the duration for which the individual is on TB treatment.
- Providing interventions that increase adherence and affect an individual's successful treatment outcome, such as improved access to supportive services, counseling, nutritional support, linking to government social protection programs, e-health, behavior

change communications, peer support, comorbidity support, and addressing catastrophic cost.

- Incorporating additional case management—in addition to epidemiological surveillance—functionalities such as refill monitoring, other adherence interventions, and clinical monitoring, plus development and linkage to laboratory and drug management modules.

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

In 2021, 58,837 people were diagnosed with DR-TB, and 53,037 (90 percent) of these individuals were put on treatment. A total of 1,939 individuals were initiated on a shorter oral BDQ-containing MDR/RR-TB regimen, 23,889 on longer M/XDR-TB regimens, and 25,235 individuals were initiated on the shorter injection-containing MDR-TB regimens.

USAID's main strategies and approaches to augment DR-TB care:

- Institutional Strengthening for DR-TB through establishing Centers of Excellence (CoEs) for DR-TB; decentralize DR-TB care expertise to a linked set of institutions in a hub and spoke model by mentoring, monitoring, and troubleshooting.
- Support NTEP introducing new drugs and treatment regimens, including pragmatic Clinical Trial of the modified BPaL regimen.
- Support to establish a system for DR-TB surveillance.
- Address the challenges associated with primary and early loss to follow-up in order to reduce (minimize) those loss to follow-up.

## **PREVENT**

### *Prevention*

In 2021, the NTEP changed the policy to expand TB preventive treatment to all household contacts (HHC) of individuals with TB—prioritize pulmonary bacteriologically confirmed TB [PBCT]—and other risk groups beyond the existing strategy for PLHIV and HHC children less than five years. Also, in 2021, 423,706 individuals were given TB preventive treatment (TPT).

In FY2023, USAID will support the following areas:

- Develop and explore the use of digital solutions for improved adherence to TB preventive treatment.
- Support the Central TB Division to disseminate the National TPT guidelines and publish the same (e-modules, job aids and printed materials).
- Support micro-planning, introduction, and scale-up of existing and expanded TPT policy

guidelines in all states.

- Build evidence for strategic testing, including new skin test of C-Tb; TPT in other identified risk groups, including contacts of DR-TB and use of digital platforms for TPT adherence monitoring integrated with Nikshay.
- Support the NTEP in preparatory work for vaccine introduction and TB preventive tools.

## **SUSTAINABLE SYSTEMS**

### *Commitment and sustainability*

To reaffirm the Government of India's commitment to end TB in their nation, "TB Mukht Bharat Abhiyan - A People's Movement Against TB" campaign was launched. During the year 2021, members of parliament, State Governors, and various Ministries beyond health have been sensitized on the issue of TB and mobilized their support. Similarly, NTEP has expanded engagement with corporates to 138 members under the Corporate TB Pledge In 2021. India also introduced a Sub-National Certification and Award to the districts and/or states for achieving milestones towards the End TB goal. A unit is eligible for bronze, silver, gold, and TB-free certification on the achievement of 20, 40, 60, and 80 percent reductions in TB incidence compared to 2015, respectively. The NTEP also set up Technical Support Units (TSUs) to strengthen public-private partnerships, contract management, direct benefit transfer schemes, and multi-sectoral collaboration in nine States and one at the Central level. The TSUs help states improve contract management capacity to expand TB services through purchases from the private sector.

USAID will support the following areas:

- Adopting TB-friendly workplace policies at private sector offices/sub-offices/plant sites, etc.
- Strengthening approaches for implementing TB purchasing arrangements to outsource TB services to non-governmental entities and expanding health insurance schemes for TB.
- Through its partners at national and state levels that include four pillars of Ayushman Bharat:
  - PM Ayushman Bharat Health Infrastructure Mission (PM-ABHIM).
  - Ayushman Bharat-Health and Wellness Centre (AB-HWC).
  - National Digital Health Mission.
  - Pradhan Mantri Jan Arogya Yojana (PMJAY).



### *Capacity and functioning systems*

USAID will provide support at the national level in following areas:

- Improving quantification, forecasting, procurement, distribution, and regulatory systems for TB medicines and supplies.
- Demonstrating e-pharmacy models for DS and DR-TB drugs.
- Supporting NTEP in improving efficiencies of TB diagnostics and drug supply chain management by systematically reviewing the current state of affairs, analyzing the root causes, and developing an evidence-based, realistic plan for improved efficiency of supply chain management of TB diagnostics and drugs.
- Strengthening performance-based monitoring and evaluation framework (PBMEF).
- Strengthening the collection, management, and use of high quality data at all levels for programmatic decision-making—e.g., target setting, planning, etc.

### *Research*

The Mission intends to support research that facilitates generating evidence for more effective and optimized use of currently available tools and adaptation/uptake of new tools. Following are key research interventions the Mission will support in collaboration with the CTD/NTEP and/or Indian Council of Medical Research (ICMR):

- Conclusion of BEAT TB study with dissemination and publications of results;
- Pragmatic Clinical Trial for Modified BPaL (mBPaL) treatment regimen.
- Comprehensive assessment of Truenat's invalid and indeterminate results for Mycobacterium tuberculosis and Rifampicin resistance testing at NTEP's sites and possible solutions to address the same.
- Feasibility of using Trueprep (TrueNat) extracted DNA for line probe assay testing in NTEP.
- Efficacy and effectiveness studies of Artificial Intelligence technology enabled solutions.
- Assessment or operational research on new initiatives under the NTEP.
- Estimating the burden of the disease and measuring linked epidemiological and socio-economic/political parameters.