Ministry of Health and Family Welfare
Government of India

Azadi Ka Amrit Mahotsav

G20 भारत 2023 INDIA

LEADING THE WAY

INDIA TB REPORT 2023

This publication can be obtained from:

Central TB Division
Ministry of Health and Family Welfare,
3, Sansad Marg, Janpath, New Delhi – 110001
http://www.tbcindia.gov.in
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March 2023

डॉ. मनसुख मांडविया
DR. MANSUKH MANDAVIYA

सत्यमेव जयते
आज़ादी का अमृत महोत्सव

मंत्री
स्वास्थ्य एवं परिवार कल्याण
व रसायन एवं उर्वरक
भारत सरकार
Minister
Health & Family Welfare
and Chemicals & Fertilizers
Government of India

MESSAGE

India has been leading Public Health conversations for many years. This year, India is also leading the G20 Presidency, which offers the scope to talk about critical Public Health considerations. India is fully committed to ensure that global health discourse is aligned with the ethos of One Earth, One Health as envisioned by Hon'ble Prime Minister Shri Narendra Modi. We strongly believe that there should be solidarity between nations, and India can help to galvanize such voices. This is an opportune time to leverage the learnings of the National Tuberculosis Elimination Programme (NTEP) and use them for broader discussions on global health systems.

NTEP has done a commendable job in mitigating the impact of COVID-19 on TB in India, despite various key issues along the entire cascade of care for TB. As the Chair of the Stop TB Partnership Board, I have a global responsibility to catalyze efforts to fight against TB and I am proud to set India's efforts as an example to the international Public Health community.

There are many reasons for us to take pride in our efforts towards TB elimination. One of our foremost achievements, of course, has been the Pradhan Mantri TB Mukt Bharat Abhiyaan that was launched by the Hon'ble President of India, which has expanded the ambit of our support to TB patients. As part of this Abhiyaan, we have enlisted the support of Ni-kshay Mitras – TB donors/volunteers – to help TB patients through their journey. More than 9.5 lakh TB patients have received commitments of support from over 71,000 Ni-kshay Mitras. Our belief in Jan Bhagidari, where every section of society contributes in its own unique way, is reflected through such initiatives.

Across every initiative runs the objective to involve all the sections of society in India's push for TB elimination. This whole-of-society approach supplements our whole-of-Government efforts as well. We are working with various allied Ministries to gather their support towards TB elimination, by utilizing their existing infrastructure and resources. All our initiatives and achievements reflect the true spirit of Jan Andolan. I am sure that with such incredible zeal and the perseverance of the TB program, we will end TB.

TB Harega, Desh Jeetega!

(Dr. Mansukh Mandaviya)

डॉ. भारती प्रविण पवार
Dr. Bharati Pravin Pawar

स्वास्थ्य एवं परिवार कल्याण राज्य मंत्री
भारत सरकार

MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA

Foreword Message for India TB Report 2023

The pandemic has been harsh, but still a steep learning curve for all of us. At the heart of India's successful COVID-19 containment strategy, just like in the past for public health crises like polio, has been the power of the community. We recognize the strength communities have and it has always been our goal to empower our people accordingly. This holds particularly true for a disease like tuberculosis. I am proud to be part of a government that has prioritized the community ethos at every stage. The flagship Ni-kshay Poshan Yojana (NPY) scheme under National TB Elimination Programme has helped the TB-affected community immensely: since 2018, when the NPY was launched, till December 2022, over Rs. 2090 crores have been paid to more than 71 lakh TB patients as Direct Benefit Transfers (DBT). Considering the bi-directional nature of nutrition and TB, this has been a key initiative to support the community in its fight against TB. This reflects our stance in giving importance to policies that blend health and social interventions beyond focusing on the clinical component of the disease.

Prime Minister Shri Narendra Modi ji gave the clarion call to end TB in the country in 2025, five years ahead of SDG target of 2030 and I am proud of how States and UTs across the country have come forward for the cause by adopting tailored patient support programs that aim to address the socio-economic impact of TB and to achieve the target. Many States and UTs have ensured counselling as a key component of the cascade of TB care. This is invaluable because many TB patients suffer social stigma and ramifications of it.

Beyond focusing on patients only, we have also been successful in ensuring that a pool of 'TB Vijetas' are empowered so that they can help raise disease awareness further and enhance the overall health literacy of the community. Till today, over 3000 TB Vijetas have been trained, and 28000 have registered for the online self-learning course. TB Vijetas are supporting our efforts in connecting presumptive TB patients to appropriate care and helping patients on treatment to adhere to their medications besides providing counseling support whenever required.

The essence of community support has been captured effectively by the Hon'ble PM's vision of Pradhan Mantri TB Mukt Bharat Abhiyaan which was launched recently. This initiative helps a range of individuals, corporates, elected representatives and organizations to consider adopting TB patients – thereby providing support to districts and blocks across States and UTs in India. This really shows the zeal for a Jan Andolan against TB by the country.

TB Harega, Desh Jeetega!

(Dr. Bharati Pravin Pawar)

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सचिव
RAJESH BHUSHAN, IAS
SECRETARY

सत्यमेव जयते

आज़ादी का अमृत महोत्सव

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

MESSAGE

India's ambitious goal to end TB as a public health problem has gained momentum in the past year, inspite of the setbacks due to the COVID pandemic. We have strengthened Primary Health Care by the establishment of more than 1.6 lakh Ayushman Bharat Health and Wellness Centres (AB-HWCs). This AB-HWCs will anchor T.B Elimination efforts because the primary healthcare team at the HWCs can engage in last-mile outreach and provide necessary preventive and curative TB services on the ground. It is a matter of immense satisfaction that even at such grassroot level institutions, we have ensured and established linkages to high-quality rapid molecular testing for accurate and fast diagnosis as well as follow up TB treatment and care.

This much needed focus on every affected person irrespective of location, urban or rural, has yielded great dividends. The National TB Elimination Programme (NTEP) in India, as was the case globally, suffered setbacks during the pandemic. However, a matrix of interventions deployed by the program have succeeded in not only offsetting such adverse impacts, but also overcoming past challenges.

The overall TB case notifications in 2019 for India stood close to 24 lakhs. In 2022, it was significantly enhanced to more than 24 lakh case notifications. This shows how the country successfully surpassed pre-COVID-19 levels of notification numbers and is steaming ahead to reach the goal.

Considering the large proportion of patients seeking care in the private sector, sustainable and effective engagement with the private sector has been critical. Several measures like the Patient Provider Support Agencies (PPSA) in 385 districts; incentives for notification and treatment support; engagements with professional medical organizations to encourage private practitioners to access free services available through the public health system, have been effectively deployed.

I am happy that mechanisms to support community engagement through digital tools like the Ni-kshay portal – which gives granular data on TB at a district/sub-district level – and a TB dashboard (integrated into the existing online DISHA platform) that aids elected representatives in tracking the progress of the TB program in their districts, are showing results. In addition, the NIKSHAY 2.0, apart from enabling the linkages of the Ni-kshay Mitras with persons affected by TB, helps in real time monitoring of the progress of flagship scheme Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA).

This vigor and dedication of NTEP personnel, administrative leadership, and community members in general will greatly assist the nation to achieve T.B. elimination goal.

TB Harega Desh Jeetega!

Place : New Delhi
Date : 20th March 2023

(Rajesh Bhushan)

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Roli Singh, I.A.S.
अपर सचिव एवं मिशन निदेशक (रा.स्वा.मि.)
Additional Secretary & Mission Director (NHM)

MESSAGE

The National TB Elimination Programme (NTEP) is one of the largest public health programmes in the world. NTEP has been making progress through adoption of new tools and therapeutics for improving the standards for TB care. As we learned during the pandemic, we can only eliminate TB when each and every person affected with TB is provided access to quality diagnostics, treatment and comprehensive care. The National Strategic Plan (NSP) clearly articulates such strategies and policies for ending TB in India.

The NTEP being a flagship program under the National Health Mission (NHM), requires a collective and integrated response for ending TB. The NHM has introduced an innovative incentive-based financial conditionality framework for a performance-based reward system. Based on the final assessment of conditionality, the States/Union Territories (UTs) in each pool may be incentivized or disincentivized. This has been catalytic for better performance and achievement of targets set for ending TB in India.

Pradhan Mantri TB Mukt Bharat Abhiyaan has been instrumental in garnering the support of private sector partners and corporates who are a vital part of the ecosystem and have the capacity to make important contributions through Corporate Social Responsibility. I am proud to say that through the initiative, 1146 corporate entities have committed their support to TB patients. Another important strategy for TB elimination has been finding synergies and collaborating with other ministries. Over the past year, NTEP has collaborated with Ministries of Panchayati Raj (MoPR), Home Affairs, Railways, Road Transport and Highways, and Youth Affairs and Sports. One of the key strategies to reach patients at the grassroots has been by bringing the local elected leaders into the NTEP fold. NTEP and MoPR have formulated a Joint Action Plan to achieve TB-free Panchayats and I am elated to mention that the model of engaging Gram Pradhan's for extending quality TB diagnostics and treatment services to patients has successfully been tested across various geographies of the country.

I am confident that by continuing the concerted efforts for TB elimination, we will successfully achieve the goal of a TB-Free India.

TB Harega, Desh Jeetega!

Roli Singh

(Roli Singh)

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डॉ. पी. अशोक बाबू, भा.प्र.से.
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Dr. P. Ashok Babu, IAS
Joint Secretary

Date: 20th March, 2023

Message

The India TB Report 2023 highlights key programmatic achievements over the last year. The National TB Elimination Programme (NTEP) continues to innovate and implement newer strategies like state-of-the-art diagnostic tools, newer drugs and the use of digital technologies including artificial intelligence. But the true spirit of Jan Bhagidari through the engagement and empowerment of the community will be pivotal in making India TB-free.

Our communities provide invaluable support to spread awareness and dispel myths and misconceptions about TB. Patient support groups have been an informal platform for TB patients and their caregivers to share their experiences. State and District TB Forums serve as a formal platform for persons affected with TB and communities to raise their concerns and be an important voice in the decision-making. I am happy to share that TB Forums have been constituted in all States/UTs. These forums help people who have successfully fought the disease to become advocates for TB in the society thereby motivating their peers and providing necessary support. More than 3000 such "TB Vijetas" have been trained physically and around 28,000 have registered for the online self-learning course.

We have prioritized active case finding among vulnerable groups and have made concerted and targeted efforts to reach everybody in the community. The effort to diagnose additional persons affected by TB through this community-based case-finding strategy has been successful in many States and UTs. The programme is committed to ensure that all persons affected with TB receive highest standard for care. Partnerships are key for ensuring high-quality TB care and mitigating the catastrophic costs on account of TB to the affected families. Patient-Provider Support Agency (PPSA) models are being implemented in several high-burden geographies to increase accessibility and affordability to quality diagnostics and treatment for patients in the private sector and improve the treatment outcome.

In addition to routine monitoring mechanisms, the NTEP conducted Joint Supportive Supervision Missions (JSSM) to States/Union Territories (UTs) during the past 2 years for on-site evaluation and provided strategic support for addressing implementation challenges.

I commend the efforts of the TB programme as well as the other stakeholders for working towards a patient-centric health system.

TB Harega, DeshJeetega!

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Dr. Rajendra P. Joshi
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India TB Report is an annual report published by the programme from the year 2001, which captures the policy updates, programme implementation, and state- and district-wise performance indicators.

It gives me great pleasure in sharing that after the challenging years of the pandemic, the total TB case notifications have surpassed the 2019 achievement of 24 lakhs and reached the new height of 24.22 lakh. The programme was able to achieve this due to a multi-pronged strategy of door-to-door active case finding, bi-directional screening of TB and COVID, decentralization of TB diagnostics, partnerships, and multi-sectoral engagement.

The NTEP has deployed 4960 NAAT machines across the country for rapid molecular diagnosis of TB which has ensured early and complete case finding and has reduced the gap in notifications.

Critical efforts have been undertaken to ensure that those living with drug-resistant TB have access to high-quality fully oral shorter treatment regimens with drugs such as Bedaquiline, Delamanid, and Pretomanid.

The Programme also tries to address all co-morbidities and social determinants of the persons affected with TB. Adopting a patient-centric view, the Programme also extends nutritional and travel support to TB patients across the country. Since 2018, direct benefit transfer (DBT) schemes, such as the Nikshay Poshan Yojana, transport support for TB patients in notified tribal areas, honorarium for treatment supporters and incentives for private sector providers and informants have been launched and are operational. These DBT schemes together saw approximately Rs. 429 crores being disbursed by the programme in 2022.

The year 2022 saw the introduction of the Pradhan Mantri TB Mukt Bharat Abhiyaan, a unique intervention that captured global attention. The programme was launched by the Honourable President of India and has resulted in almost all patients who are on treatment being supported either through individuals or through corporate entities. An online portal on the Ni-kshay platform provided a real-time dashboard for the initiative, showcasing widespread public support.

TB is a disease which can be overcome completely only when communities are mobilized and supported in a holistic manner. NTEP instituted State and District Forums across the country, to allow the program to understand the perspectives of different stakeholders including patients. Programme values the widespread participation of TB survivors and civil society representatives, reconstituting the National TB Forum after every two years. This is in addition to the formation of District TB Forums in more than 700 districts. These

forums have served as an effective feedback mechanism and administration across districts and states are benefiting from this initiative.

TB preventive therapy coverage increased considerably in 2022 with the expansion of eligibility of TPT to additional groups such as household contacts irrespective of age. More than 14 lakh household contacts and PLHIV were put on TPT in 2022.

As we are racing against time in achieving the goal of ending TB in India, we are looking for innovations for TB prevention, diagnosis, care and management which are affordable, applicable and accessible to the citizens. This paves a way for our country to tap the research potential in our institutions, scientists and academicians. The NTEP has been working diligently to prevent TB disease and consistently improve time-to-diagnosis and treatment initiation, adherence, and outcomes. Significant advances have been made in India in 2022 in providing accurate TB diagnostics and effective treatment. India is well on its way to achieving our ambitious goal of Ending TB and the NTEP will continue the relentless efforts towards a TB Free India.

TB Harega, Desh Jeetega!

(Dr. Rajendra P. Joshi)

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EXECUTIVE SUMMARY

In the path of recovery forged post-pandemic and from the guiding light of the "National Strategic Plan (NSP) 2017-2025", National TB Elimination Programme (NTEP) shifted gears in 2022 and accelerated its pace towards ending TB by 2025. This led to various achievements by the programme as well as implementation of innovative strategies and interventions for the benefit of patients and the community.

◄ TB DISEASE BURDEN IN INDIA

Despite the brief decline in TB notifications observed in 2020 and 2021, NTEP reclaimed and achieved beyond these numbers. The year 2022 marks a milestone year for TB surveillance efforts in India, with a record high notification of 24.2 lakh cases; an increase of 13% as compared to 2021. This translates to a case notification rate of approximately 172 cases per lakh population. The period also saw the highest private TB case notifications achieved so far, 7.3 lakhs. The total number of MDR/RR patients diagnosed in 2022 is 63,801. Sustaining the momentum of finding missed TB patients by strengthening the case finding efforts (both passive and active case finding) led to the above achievement under the programme. In 2022, the presumptive TB examination rate (PTBER) for the country rose to 1281 per lakh population (68% increase) from 763 in 2021.

◄ TB DIAGNOSTIC SERVICES

Free of cost laboratory services to patients attending public health facilities and those referred from the private sector have been the programmatic ethos since its inception. Over the years, the programme has developed one of the most extensive TB diagnostic networks, spanning all health system tiers. Staying true to its history of ever-increasing reach to both public and private sector and up-gradation to newer diagnostic technologies, the network of well-connected and quality assured laboratories was able to perform approximately 1.39 crore sputum smear tests and 58 lakh nucleic acid amplification tests (NAAT) tests in 2022.

◄ TREATMENT SERVICES

NTEP has been agile in adopting and adapting to the global and Indian evidence pertaining to the treatment and care of persons affected with TB. In recent years,

the country has made far-reaching progress in the management of TB including drug resistant TB (DR-TB) and scaling up of shorter oral regimen across the country. Similarly, the programme introduced a comprehensive package of differentiated care for TB patients to identify the patient's requiring referral or hospitalization at the time of diagnosis to reduce preventable mortality among TB patients. Various States/UTs started implementing the differentiated care approach adopting different modalities and with collaborations.

Also, addressing the various delays thereby improving the quality of care provided to TB patients has been one of the focus areas monitored periodically by the programme.

Further, NTEP has been unwavering in curtailing the impediments in managing DR-TB patients. To offer the last-mile service delivery for better access and quality care to TB patients, including DR-TB patients and their close contacts, the programme has decentralized TB services to the Ayushman Bharat – Health and Wellness Centres (AB-HWC).

◄ TB PREVENTION

'Prevent' is one of the four critical pillars (Detect – Treat – Prevent – Build) of India's NSP 2017-2025 that focuses on preventing the emergence of TB disease in a vulnerable population. The task of TB Prevention Treatment (TPT) scale-up has been taken up in 2022. By the end of 2022, 722 (94%) districts of India have expanded TPT as per the national guidelines. TB Infection (TBI) testing services were established in 246 (32%) districts either as in-house facilities or linked with in-house or outsourced private facilities. Additionally, 476 (62%) districts have expanded TPT in eligible house-hold contacts (HHC) after ruling out active TB while awaiting establishment of TBI testing services. The rest of the 41 (6%) districts have planned to expand TPT services by first quarter of 2023. TPT coverage increased considerably after the expansion of services by geography and high-risk groups. More than 13.92 lakh eligible household contacts and PLHIV were put on TPT in 2022.

◄ TB COMORBIDITIES AND SPECIAL SITUATIONS

Comorbidities like undernutrition, diabetes, HIV, tobacco smoking, and alcohol impact a person with TB in predisposition and severity. To combat these, the programme brought in a multitude of initiatives.

Cognizant of the bidirectional relationship of TB and undernutrition, the programme has collaborated with the various Ministries to provide additional nutrition support to persons affected with TB including the 'Poshan Mah" programme of the Ministry of Women and Child Development (MoWCD), with the objective of successful treatment and improved nutritional status.

The programme offers linkages to other services like counselling, de-addiction centres, and social support systems to people struggling with alcoholism and tobacco use. Single-window TB and HIV services are also being implemented through the ART centres.

The programme collaborates with other departments like Rashtriya Bal Swasthya Karyakram (RBSK) and Rashtriya Kishor Swasthya Karyakram (RKSK) etc. This year, the programme started gearing up the programme managers to acquire skills for gender-responsive analysis and interventions by conducting regional-level training to enable the stakeholders to implement gender sensitive approaches across differentiated TB patient care.

◄ SUPERVISION AND MONITORING

To identify the technical and administrative challenges faced by the States/ UTs and provide course-correction, a nationwide Joint Supportive Supervision Mission (JSSM) was conducted across 27 States/ UTs in 2022. The JSSM team provided extensive recommendations to the State officials for strengthening the TB response. Furthermore, the programme division is strengthening the Ni-kshay portal by incorporating advanced analytical tools to provide regular feedback to the States on important indicators, which will help them take necessary and timely actions.

◄ PATIENT SUPPORT SYSTEMS

Direct Benefit Transfer (DBT) into the beneficiary's bank account under the NTEP continued its exemplary reach in 2022 as well. Approximately INR 2090 crores have been paid to ~71 lakh persons affected with TB under Ni-kshay Poshan Yojana (NPY) from April 2018 to December 2022.

Effecting new patient-supportive pathways in the aftermath of COVID-19, the programme brought about flexibility to provide the DBT benefit through the existing bank account of a blood relative of a person affected with TB. An exclusive module was released on Ni-kshay for the informant incentive scheme as well. Two new DBT schemes for incentivizing the Treatment Supporters of TPT beneficiaries and incentivizing ASHA workers for seeding of bank accounts of persons affected with TB have been approved by the government.

◄ PARTNERSHIPS FOR PRIVATE SECTOR ENGAGEMENT

Several partners and stakeholders have come together for India's fight to eliminate TB, bringing numerous innovative approaches and diverse strategies. The programme has established Technical Support Units at the National level to strengthen partnerships. Likewise, units to provide similar technical assistance have been set up in 14 Sates, contributing to more than than 80% of the national TB notification. These States include West Bengal, Maharashtra, Madhya Pradesh, Assam, Bihar, Uttar Pradesh, Karnataka, Tamil Nadu, Rajasthan, Delhi, Gujarat, Andhra Pradesh, Telangana, and Odisha. Engagement of interphase agencies in the form of Patient-Provider Support Agency (PPSA) to promote private sector engagement has also been approved in around 385 districts.

For accelerated action towards TB elimination in the mission mode, a 'Multisectoral response' has been given utmost priority to ensure meaningful engagement of key stakeholders, including Ministries / Departments both at the Central and State-level, industries of public and private sectors, corporate, and business associations.

◄ PRADHAN MANTRI TB MUKT BHARAT ABHIYAAN

To galvanize community participation and ownership, Her Excellency, **Smt. Droupadi Murmu, Hon'ble President of India on 9th September 2022 launched the "Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)"** to provide persons with TB and their families additional nutritional, diagnostic, and vocational support, delivered by the community.

Tremendous response has been seen for this initiative since its launch. As on 1st January 2023, more than 58,000 Ni-kshay Mitras (donors) have come forward and committed to support more than 9 lakh consented persons affected with TB. Enormous participation from all States/UTs has been seen with Political leaders, Ministers, MP's, Elected Representatives, Government officials, NGOs and big associations coming forward and conducting multiple events to spread awareness about the PMTBMBA initiative.

◄ ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION, INCLUDING COMMUNITY ENGAGEMENT

Since their inception, Advocacy, Communication, and Social Mobilization (ACSM) and Community Engagement have been bolstering the programme's foundation by solidifying the measures across all aspects of TB care. A "Guidance Document on Community Engagement" has been developed to guide the States/ UTs in planning, designing, and monitoring the activities under community engagement. A certificate course titled "Self-learning course for TB Champions" has been developed and hosted on multiple e-platforms to empower TB survivors with the basic knowledge on TB and the provision of various services offered by the NTEP. To monitor these components, indicators have been identified and incorporated in Ni-kshay portal.

◄ TB RESEARCH AND INNOVATIONS

Drawing from the third pillar of the NSP 2017-2025 on research and innovations, the NTEP is collaborating with various national entities towards augmenting the development of new tools, reinforcing not only the rapid uptake of available tools and products but also to expedite our battle to end TB. Furthermore, capitalizing on Artificial Intelligence (AI) for improving healthcare delivery, increasing diagnostic accuracy, and screening for disease, multiple tools are at various stages of development and validation.

01

Structure of the National Tuberculosis Elimination Programme

Chapter 01

Structure of the National Tuberculosis Elimination Programme

National TB Elimination Programme (NTEP) is a centrally sponsored programme being implemented under the aegis of the National Health Mission (NHM) with resource sharing between the State Governments and the Central Government.

A. National Level

At the National level, the NTEP is managed by the Central TB Division (CTD), the technical arm of the Ministry of Health and Family Welfare (MoHFW). CTD and its establishment have been placed under the Department of Health & Family Welfare (DoH&FW). The Additional Secretary and Mission Director, National Health Mission (NHM) is overall incharge of the programme. The respective Joint Secretary from the administrative arm of the MoHFW takes care of the financial and administrative aspects of the programme. The Deputy Director General-TB (DDG-TB) as a head along with a team of officers in CTD, lead the implementation of the NTEP nationwide. CTD is assisted by six national level institutes, namely the National Tuberculosis Institute (NTI), Bengaluru, the National Institute of Tuberculosis and Respiratory Disease (NITRD) New Delhi, the National Institute for Research in Tuberculosis (NIRT) Chennai, Regional Medical Research Centre (RMRC) Bhubaneswar, the National JALMA Institute of Leprosy and Other Mycobacterial Diseases (NJIL & OMD) Agra, and the Bhopal Memorial Hospital and Research Centre (BHMRC) Bhopal. CTD has assigned Additional. DDG, Assistant DDG, Joint Directors and TB Specialists to manage the multiple thematic areas under the Programme Division.

Committees at the National level

- National Technical Expert Group (NTEG) under NTEP was reconstituted as a single group in the place of NTEG for diagnosis, Treatment, LTBI and Paediatric TB, with Dr. Vishwa Mohan Katoch as Chair. The objective is to provide expert advice on the aforementioned thematic areas and offer regular updates to NTEP on diagnostic and treatment policies in line with WHO guidelines and recommendations for TB including DR-TB in the public as well as private sectors.

- National Task Force (NTF) for Medical Colleges: A National Task Force has been formed for the effective implementation of the NTEP in Medical Colleges. DDG (TB) is the Member Secretary of the NTF, and the members are from CTD, each Zonal Task Force, the National Institutes and WHO. The main task of the NTF will be to provide leadership, advocacy, coordination, monitoring, and policy development on issues related to the effective involvement of medical colleges in the NTEP. The NTF meeting was held in Kolkata from the 22nd to 24th November, 2022 during which a Kolkata declaration was signed.

- National TB Forum: To execute the plan of meaningful involvement of the community and civil society, “National TB Forum” has been constituted under the chairpersonship of the Secretary (Health), Government of India for engagement of community and civil society for increasing participation of the community at large in TB elimination programme, to reach the unreached and to support TB patients in the course of their illness through a community-based response.

- National Technical Support Unit: To achieve the ambitious NSP targets (2017-25) and to augment the efforts towards private sector engagement, CTD established the National Technical Support Unit (NTSU) as an institutional framework under NTEP. NTSU will aid the successful implementation of innovative interventions by supporting States across the country through IT system development, strategy development and implementation oversight, monitoring and evaluation, capacity building and technical assistance. NTSU coordinates and monitors the State Technical Support Units (STSU). In addition to this, CTD also has a Technical Support Unit (TSU) for ACSM and Artificial Intelligence in place.

B. State Level

At the State level, the State Health Secretary and MD-NHM are responsible for programme implementation. The State Tuberculosis Officer (STO) being the program manager heads and oversees the planning, training, supervision, and monitoring of the programme in their respective State/UT in line with the guidelines of the State Health Society and CTD. The STO, based at the State TB Cell (STC), coordinates CTD and the respective districts for the execution of their responsibilities towards TB elimination in respective geography.

Structures at the State Level:

The State TB Cell has been provided with contractual staff in addition to the general health system staff, to carry out its routine functions. It includes Medical Officer STC, Assistant Programme Officer, State HIV-TB Coordinator, State DR-TB Coordinator, State Public Private Mix (PPM) Coordinator, State ACSM Officer, Technical Officer for Procurement and Logistics, State Accountant, and Ni-kshay Operator.

State TB Training and Demonstration Centre (STDC) supports the STC in most of the larger states. The STDC has three units: a training unit; a supervision and monitoring unit; and an Intermediate Reference Laboratory (IRL). State Drug Store (SDS) has been established for the effective management of anti-TB drug logistics.

At the State level, the STDC is supported by the State TB Forums for community engagement, State level PMDT committee for implementation guidance and review of PMDT, and State level Technical Working Group for HIV-TB for smooth HIV-TB coordination. Nodal DR-TB centres are established for the programmatic management of drug-resistant TB (PMDT) with newer drugs, and adverse drug reactions (ADR) and act as referral units.

◄ State Technical Support Unit (STSU):

State Technical Support units have been established in selected States to support the STC with the subject matter expertize of an 11 member team. This team has Program management, M&E, capacity building, Private sector, financial and procurement experts. The STSU team under the guidance of the STO supports the State in achieving the programmatic goals of the State, with a special focus towards private sector engagement, contract management through various strategy ideation, development and implementation, M&E, capacity building and technical assistance to the Districts. All the STSUs are centrally monitored and provided handholding by the NTSU.

C. District Level

The district is the key level for the management of primary health care services. The Chief District Health Officer (CDHO) / Chief District Medical Officer (CDMO), or an equivalent functionary in the district, is responsible for all medical and public health activities, including TB elimination. District Tuberculosis Centre (DTC) is the nodal point for all TB elimination activities in the district. District TB Officer (DTO) at the DTC has the overall responsibility of managing NTEP at the district level as per the programme guidelines and the guidance of the District Health Society. The DTO is assisted by contractual staff provided by the NTEP which includes District Programme Coordinator, District PPM Coordinator, District DR-TB and HIV-TB Coordinator, and District Ni-kshay Operator.

D. Sub-District Level (Tuberculosis Unit Level)

Tuberculosis Unit (TU) is a programme management unit in the NTEP at the sub-district level. The TU consists of a designated Medical Officer-Tuberculosis Control (MO-TC) who delivers NTEP services in addition to other responsibilities. There are also two full-time NTEP contractual supervisory staff exclusively available for TB work - a Senior TB Treatment Supervisor (STS) and a Senior TB Laboratory Supervisor (STLS). The TU is generally aligned with the blocks in the district.

E. Peripheral Health Institute (PHI)

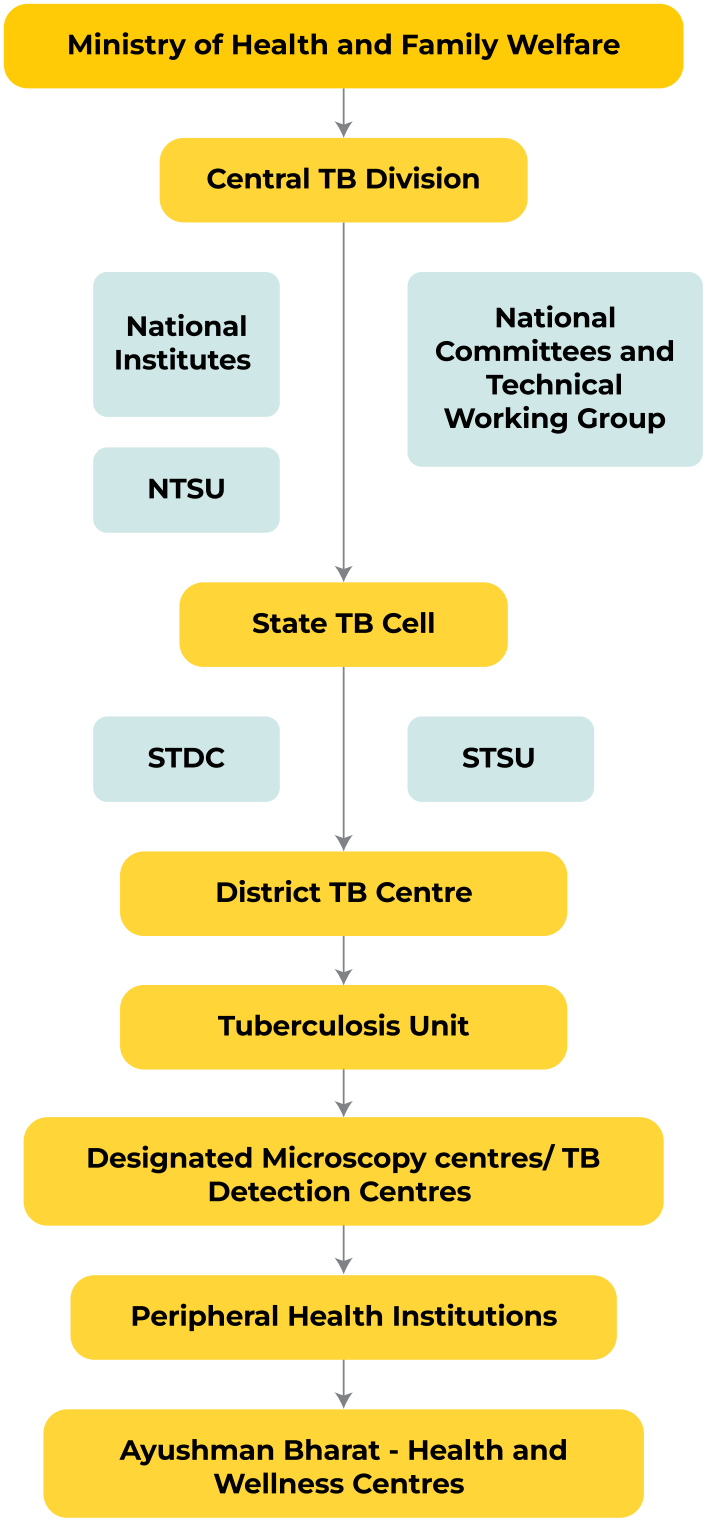
The PHI is the smallest functional unit under NTEP. A PHI is a health facility that is manned by a medical doctor. A PHI may be a public or private sector (including NGO-aided) dispensary, primary health centre, community health centre, referral

or secondary care hospital, and tertiary care centre (major hospitals, specialty clinics/ hospitals, and medical colleges). Some of the PHIs may serve as a TB diagnostic centre (TDC) which is the most peripheral laboratory within the NTEP structure. A PHI needs physical infrastructure, a binocular microscope, and a trained LT to function as a TDC. A TB-Health Volunteer is assigned to PHIs as per the norms prescribed by the programme. Case finding, treatment initiation (both DS-TB and some instances of DR-TB), and further management take place at the PHI level.

F. Health and Wellness Centres (HWC)

Under the Ayushman Bharat, Health Sub-Centres (HSCs) and Primary Health Centres (PHCs) have been transformed into HWCs for delivery of Comprehensive Primary Health Care (CPHC). The services provided at the HWCs includes services for communicable diseases such as TB. For TB, HWCs serve as the first point of care for continuation of treatment, adherence support and for ancillary drugs. (Figure 1.1)

Figure 1.1: Organogram of National TB Elimination Programme (NTEP)



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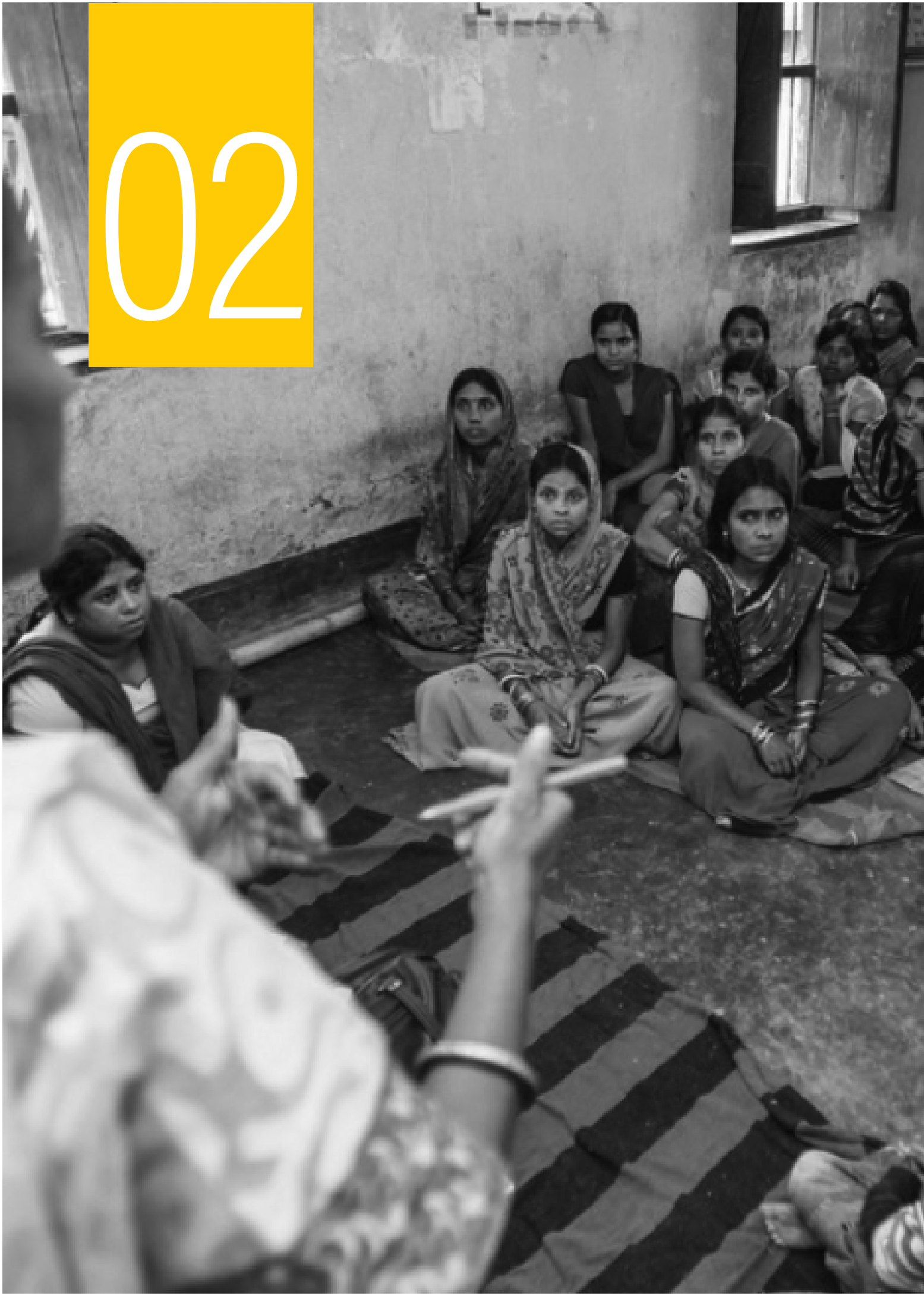
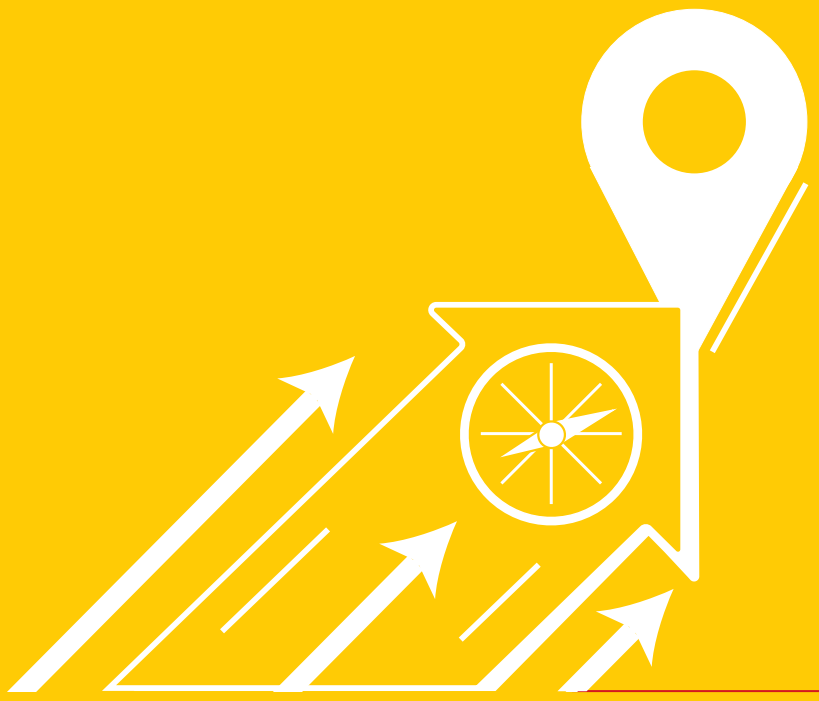




Tracking the Progress towards SDGs in India

Chapter 02

Tracking the Progress towards SDGs in India

Estimation of Tuberculosis burden especially in terms of incidence and mortality has never been an easy task especially with aggregated reporting or when the coverage of case base surveillance system is below benchmarks. Also, a stable epidemic with single estimate of TB incidence by WHO for the country at 168 per 1,00,000 population was considered for quite a long time over a decade back.

However, with the introduction and rapid scale-up of Ni-kshay (a case-based web-based surveillance system) in India

since 2012, the quality of information on notification has been continuously improving. With scale-up of private sector engagement & mandatory notification, the coverage of private sector notification has increased over 7 times since 2014 and accounts for over 30% of total notification as on date. Microscopy services have been decentralized to almost every primary health care facility and scale-up of NAAT testing has been scaled up simultaneously to cover all districts across the country. This helped the country in improving the quality of TB diagnosis over the last decade.

India has also introduced daily regimen for first-line treatment of TB in 2017, harmonizing the regimens in public and private sector harnessing universal access to TB care. With Ni-kshay, tracking of patients has also helped in improving the treatment outcomes of all types of patients including those which otherwise would be loss-to follow-up. Introduction of active case finding has helped the country in screening large sections of vulnerable and general population and giving an opportunity for early diagnosis, thereby preventing per capita transmission rate in the community.

All these efforts have helped the country to better understand not only individual patient journey but also the programme performance in diagnosis prevention and care. The recently concluded National TB Prevalence Survey also helped to identify and measure the diversity of TB burden in the country with state level estimates. Vital registration data published by Registrar General of India on cause of death over years has been a valuable data source not just to compare the TB deaths reported by the TB programme but also in understanding the total quantum of TB deaths in India.

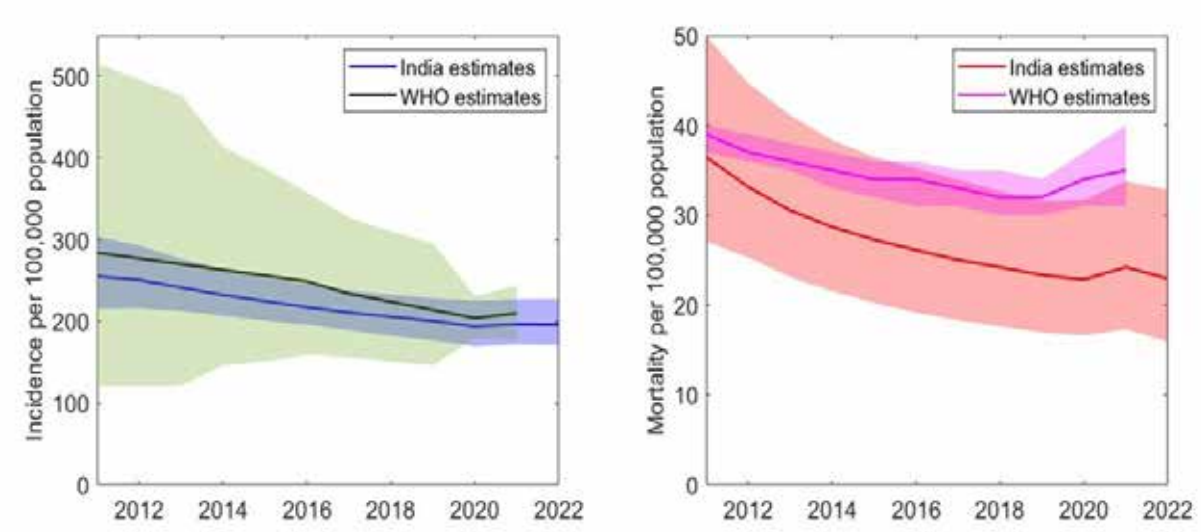
Sub-national certification is a novel method designed and implemented by India with increasingly more districts participating in this in-depth data verification & triangulation along with community-based survey and information of drug sales at district level. It has given the programme an opportunity to estimate TB incidence at State/District level by three different methods direct method (reported by community during survey), indirect method (adjusting for under-notification), and quantification of drug sale & consumption data.

All the data from above-mentioned sources of information were utilized and an in-country dynamic mathematical model was constructed based on natural history of disease, individual status of infection, disease, health care seeking, missed or correct diagnosis, treatment, its outcomes including cure and death. This model was calibrated for the observed or reported figures as inputs for prevalence in 2020, notification rate in 2019, Mortality in 2015, proportion of treatment in 2019, reduction in notification relative to 2011 and 2015 in public and private sector, and proportion of Latent TB Infection (LTBI) in 2019. For COVID related disruption, mobility data utilized as proxy for reduction in population movement impacting the transmission was used. Model was calibrated for years between 2011 and 2025. The results of values for TB incidence and mortality for the period between 2015 and 2022 are as under:

Estimates	2015			2016			2017			2018			2019			2020			2021			2022		
	lo	mid	hi	lo	mid	hi	lo	mid	hi	lo	mid	hi	lo	mid	hi	lo	mid	hi	lo	mid	hi	lo	mid	hi
Incidence (per 1,00,000)- **G-TB report 2022 (interim) WHO**	151	256	387	159	249	358	156	234	327	151	224	310	146	214	295	179	204	231	178	210	244	-	-	-
Incidence (per 1,00,000)- **In-country model**	201	225	254	196	217	246	189	211	238	182	206	233	177	201	228	169	194	226	172	197	227	171	196	228
Mortality (per 1,00,000)– **G-TB report 2022 (interim) WHO**	32	34	36	31	34	36	31	33	35	30	32	35	30	32	34	31	34	37	31	35	40	-	-	-
Mortality (per 1,00,000)- **In-country model**	20	27	36	19	26	35	18	25	34	18	24	33	17	23	32	17	23	32	17	24	34	16	23	33

Table 2.1: Comparison of trend in TB burden between Global TB report 2022 (interim) and in-country model for India (Global tuberculosis report 2022. Geneva: World Health Organization; 2022. License: CC BY-NC-SA 3.0 IGO.)

Figure 2.1: Comparison of estimates from Global TB Report 2022 for India (interim) and the in-country model (India) 2015-2022



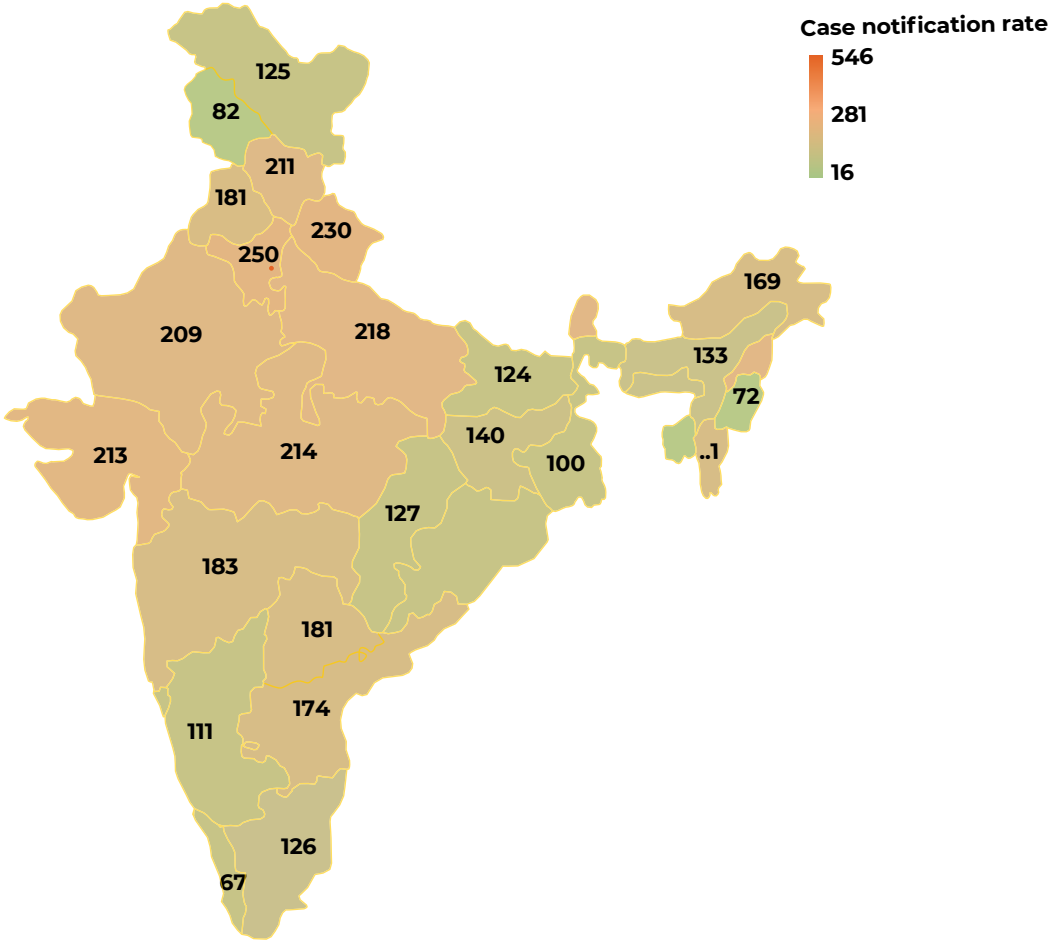
◄ National TB Prevalence Survey (NATBPS) 2019-2021:

In line with its vision to end TB early and for planning interventions for accelerated decline of TB, India undertook one of the largest national TB prevalence surveys for near accurate estimation of burden at National level and 20 State groups from 2019 to 2021. Despite the pandemic situation, the country was able to complete the survey. The estimated point prevalence of microbiologically confirmed Pulmonary TB among persons aged more than 15 years at National level was 316 per lakh population. The prevalence of all forms of TB was estimated to be 312 per lakh population.

◄ TB case notifications in 2022:

2022 marks a milestone year for TB surveillance efforts in India, with a record high notification of 24.2 Lakh cases; an increase of over 13% as compared to 2021. This translates to a case notification rate of approximately 172 cases per lakh population. The treatment initiation rate among the notified cases for 2022 was 95.5%. The highest case notification rate among States was seen in Delhi (546 per lakh population) and the lowest among States was seen in Kerala (67 per lakh population) (Figure 2.2).

Figure 2.2: State-wise TB case notification rates for 2022



◄ Drug resistant TB in India:

Currently, the drug-resistant pattern (based on the drug resistance/susceptibility identified) are grouped into four categories by the programme: multi-drug resistant/ Rifampicin resistant - TB (MDR/RR - TB), pre-extensively drug-resistant TB (pre-XDR-TB), XDR-TB and isoniazid (INH)-resistant TB. Pre-XDR-TB is TB in which resistance to Rifampicin (MDR/RR-TB) and any Fluoroquinolone (FQ, class of second-line anti-TB drug) are detected. XDR-TB is TB in which resistance to Rifampicin (MDR/RR-TB), plus any Fluoroquinolone, plus at least one of other Group A drugs (Bedaquiline and Linezolid) are detected.

The estimated incidence of MDR/RR-TB (as per the Global TB Report 2022) in 2021 for the country was 119,000 (93,000-145,000). During the pandemic, a significant reduction was observed in the total number of DR-TB patients detected as compared to 2019 under the programme. The year 2022 saw an increase of 32% in the number of MDR/RR-TB cases detected under NTEP as compared to 2021.

ESTIMATES OF CATASTROPHIC COSTS DUE TO TB

Poverty is both a risk factor and a consequence of TB. The disease disproportionately affects the households with low socio-economic status causing a financial burden on them, thereby resulting in detrimental effects like delayed care seeking, inadequate adherence and poor treatment outcomes. The underlying cause is the financial and social costs that the chronic and debilitating nature of the disease imposes on affected individuals and families. Such costs could lead to financial catastrophe. In India around 18% of the general population are experiencing such catastrophic healthcare expenditure in general[2]. To address this, the End TB Strategy of WHO and the National Strategic Plan (NSP) for TB in India have set a target to eliminate the catastrophic cost due to TB care.

End TB Strategy as well as NSP measures the out-of-pocket expenditure (OOPE) through the concept of "catastrophic costs," which is different from "catastrophic expenditures," an indicator which is used to measure progress towards universal health coverage (UHC). While guaranteeing UHC is essential, it will not be sufficient to end the epidemic of TB. Hence instead of "catastrophic expenditure" which focuses on direct medical costs only, TB-related "catastrophic costs" which includes indirect costs has been incorporated by the End TB Strategy. As per the definition, if the total costs incurred by a TB-affected household exceeds 20% of their household annual income, the costs are classified as catastrophic. A recent systematic review (2020) estimating the direct and indirect patient costs of DS-TB and DR-TB care in India reports that 7 to 32 percent of DS-TB and 68% of DR-TB affected persons were experiencing catastrophic costs for TB care[3]. As per the NATBPS 2019-2021, the median total cost incurred (diagnosis, treatment and indirect cost) to participants currently on TB treatment was INR 7500 for public sector and INR 20000 for private sector.

The pandemic and the consequent mitigation measures had affected the TB control programmes globally and more so in the high burden countries impacting care-seeking, treatment services, household income and thereby on the cost incurred to the affected household. To circumvent the same, the programme had conceptualised and launched the largest community support initiative for TB patients "Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)". However, to advocate, plan and implement strategic evidence-based interventions as well as to assess the impact of aforesaid interventions there is a need for a TB patient costs survey either separately or combined with health surveys at National and State level, thereby aiding in tracking the progress towards the goal of achieving zero catastrophic cost due to TB.

◄ Determinants of TB:

In India, it is estimated that the five risk factors to which TB cases are mainly attributed are: undernutrition (7,38,000), harmful use of alcohol (2,58,000),

[2]National Health Systems Resource Centre, Ministry of Health and Family Welfare, Government of India. Healthcare Utilization & Expenditure in India: State Fact Sheets, 62. (Available from: http://nhsrcindia.org/sites/default/files/ State%20Fact%20Sheets_Health%20care%20Utilization% 20and%20Expenditure%20in%20India.pdf)

smoking (1,10,000), diabetes (1,05,000) and HIV (93,000). These risk factors together account for 44% of the total estimated incident TB in India. The NATBPS 2019-2021 found a higher prevalence of pulmonary TB in older age groups, males, undernourished, smokers, alcoholics and known diabetics. These risk groups form a huge pool of vulnerable individuals for whom locally appropriate vulnerability reduction measures need to be implemented. This signifies the importance of a "health system approach" or an "integrated approach" for TB elimination in the country with involvement of all the stakeholders beyond health.

Furthermore, the NATBPS[4] found that the majority (64%) of TB symptomatic individuals did not seek health care. The common reasons cited for not seeking care were ignoring the symptoms (68%), not recognizing the symptoms to be that of TB (18%), self-treatment (12%) and not being able to afford care (2%). It shows a glaring picture requiring immediate focus of the programme and strategies for addressing the same to attain the "Jan Andolan" for TB Elimination.

◄ India's exercise to estimate the burden at Subnational level:

Complete surveillance is an important public health function in the prevention and control of any disease. Prompt notification to the public health system is an important component of the surveillance process and achieves essential public health objectives to measure disease burden and monitor epidemiological trends. Accordingly, for understanding the epidemiology at subnational level and at the same time incentivizing and rewarding States/Districts for the progress made in terms of decline in their TB disease burden, the initiative of Subnational disease-free certification was initiated as an annual exercise. This will not only motivate States/Districts to prioritise NTEP activities in elimination mode but will also generate a sense of healthy competition among States/Districts. Accordingly, it was considered to have sub-national level progress towards ending TB documented and measured at defined milestones and "Awards" be presented to respective States/UTs/Districts upon achievement of these milestones.

Criteria for **"Progress towards TB Free" certification**: As per the approvals by Mission Steering Group (MSG) of NHM in 2018, for TB, a District or a State/UT will be recognized for "Progress towards TB Free Status" based on the criteria outlined along with the awards (monetary and non-monetary) as below in Table 2.2:

[3]Chandra, Ankit & Kumar, Rakesh & Kant, Shashi & Parthasarathy, Raghavan & Krishnan, Anand. (2020). Direct and indirect patient costs of tuberculosis care in India. Tropical Medicine & International Health. 25. 10.1111/tmi.13402.

[4]National TB Prevalence Survey, 2019-2021. https://tbcindia.gov.in/showfile.php?lid=3659.

Table 2.2: Criteria for "Progress towards TB Free" certification

Award and percentage of decline in incidence as compared to 2015	Monetary award for District (INR)*	Monetary award for States/UTs (INR)*	Non-Monetary award
Bronze ≥20% decline	2,00,000	25,00,000	Medal and Felicitation at the National level
Silver ≥40% decline	3,00,000	50,00,000	
Gold ≥60% decline	5,00,000	75,00,000	
TB Free District / Cities ≥80% decline	10,00,000	1,00,00,000	Certification and Felicitation at the National level

** For States /UTs with population less than 50 lakhs and districts with population less than 2 lakhs, the award amount shall be 50% of the amounts considered.*

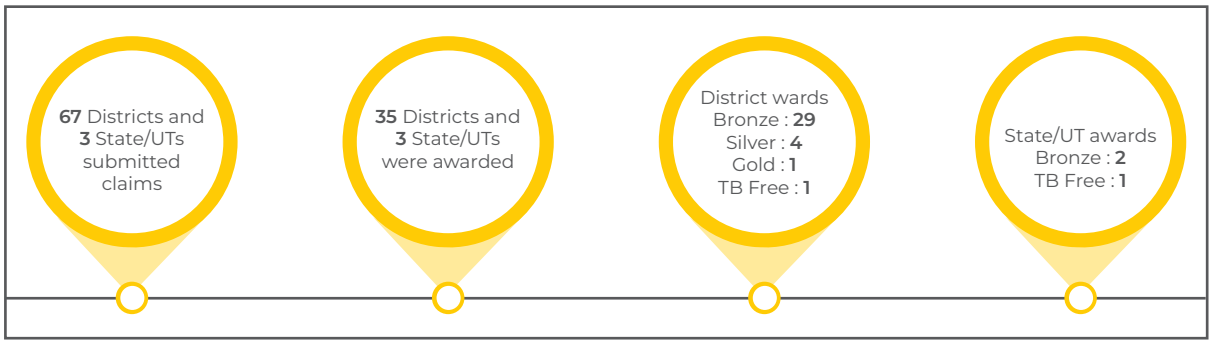
** District level awards will be financed through the States/UTs PIPs.*

Districts/States/UTs are certified under the categories upon independent verification by a national team composed of personnel from ICMR National Institute of Epidemiology (ICMR-NIE, led the 2020 round), ICMR- National Institute for Research in TB (ICMR-NIRT, led the 2021 and 2022 round), WHO India and Indian Association of Preventive and Social Medicine.

◄ 2020

A total of 3 States/ UTs and another 67 districts across the country submitted claims under various categories in 2020. In the first round, the State of Kerala, UTs of Lakshadweep, Puducherry and 35 districts have successfully achieved various levels of reduction in TB incidence.

The UT of Lakshadweep and the district of Budgam in Jammu and Kashmir were declared as the first UT and the first district in the country to achieve more than 80% reduction of TB incidence. (SDG Targets).



◂ 2021:

A total of 10 States/UTs and 201 districts across the country submitted claims under various categories in 2021. Following the verification process, the States/UTs of Kerala, Dadra and Nagar Haveli and Daman and Diu, Puducherry were awarded "Silver" category award (achieving more than 40% reduction in TB incidence) and "Bronze" category-award (achieving more than 20% reduction in TB incidence) was awarded to Gujarat, Himachal Pradesh, Sikkim, Tripura and Ladakh. Also, 91 districts were awarded in various categories, Gold - 8, Silver-27 and Bronze-56, respectively.

◂ Way Forward plans

Burden estimation exercise to be made as an annual event for re-calibrating the strategies of the states and districts. In addition to the District Level Annual surveys, District Level Sentinel Surveys (DLSS) is being planned to supplement the estimates.

3A

Diagnostic Services

Chapter 3A

Diagnostic Services

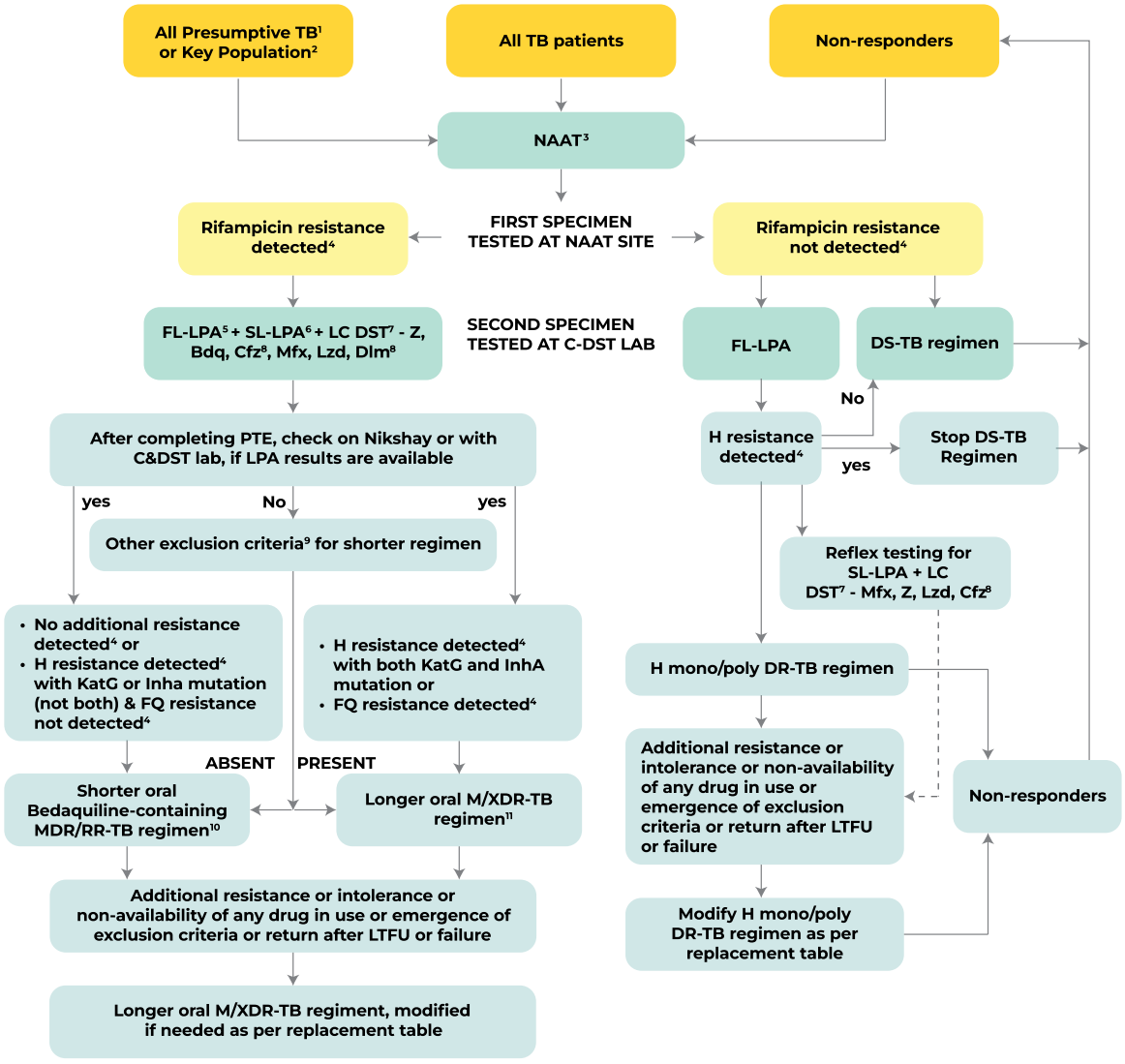
Introduction

Quality assured TB diagnostic services are offered free of cost to all patients seeking care in the public health system as well as those referred from the private sector, through the network of laboratories under NTEP.

Newer technologies for TB diagnosis and detection of drug resistance have been introduced and suitably placed in the diagnostic algorithm to aid prompt initiation of appropriate treatment regimen.

Microbiological confirmation of TB and use of chest X Ray to improve efficiency of screening have been emphasised.

Figure 3. 1: Integrated Diagnostic and treatment algorithm



Offering upfront NAAT for diagnosis of TB has been prioritized by the Programme.

Implementation Arrangement:

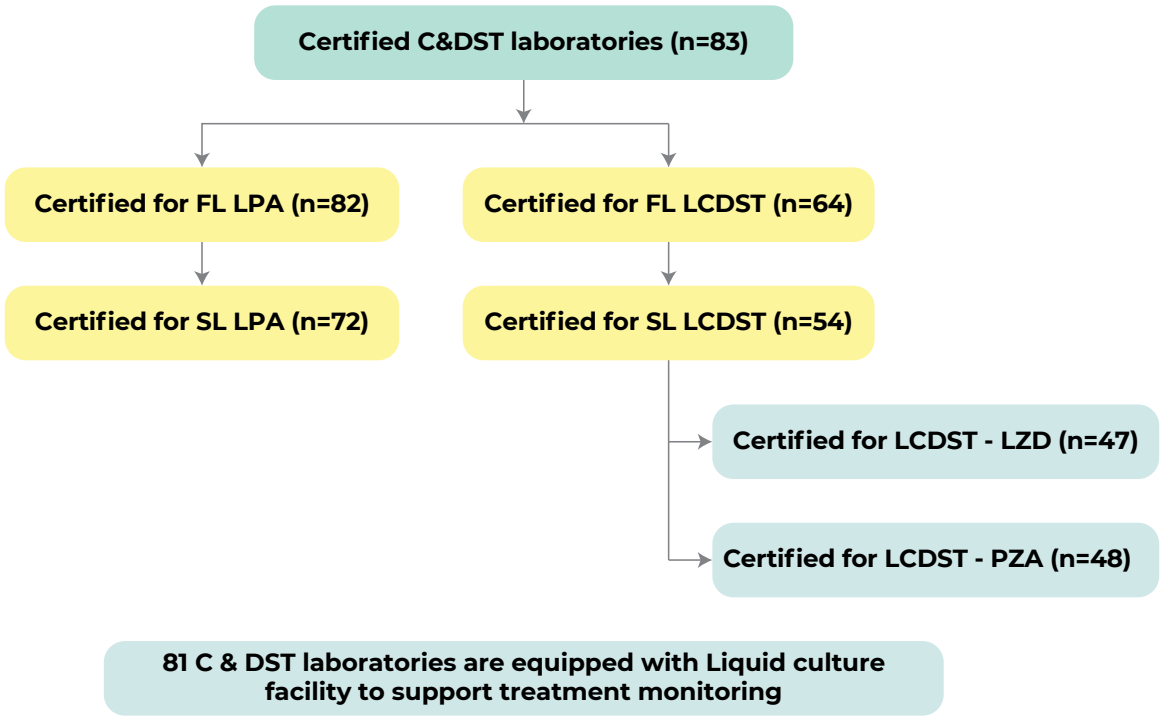
The tiered system of laboratory network includes C& DST laboratories, NAAT facilities and microscopy facilities at National, State, District, sub- district and peripheral levels.

- NRLs, IRLs and C-DST laboratories are equipped to perform DST by various technologies such as Liquid Culture (LC-DST) and molecular tests such as LPA and NAAT.
- NRLs and IRLs conduct training, handholding, monitoring and evaluation for their respective State /District/ block level facilities/ laboratories.

Table 3.1: Expansion of diagnostic technologies under NTEP

Testing Modality	2017	2018	2019	2020	2021	2022
DMC		16000	20356	21717	22284	23038
CBNAAT	651	1180	1180	1268	1303	1475
Truenat	---	---	367	1879	2457	3615
NAAT	651	1180	1547	3147	3760	5090

Figure 3.2 Certification status of C&DST laboratories in NTEP diagnostic network



NIRT, Chennai; NITRD, New Delhi; NTI, Bengaluru; Sir JJ Group of Hospitals and Grant Medical College, Mumbai; P.D. Hinduja Hospital Mumbai and CMC Vellore are certified for performing LCDST to Bedaquiline.

NIRT, Chennai; NITRD, New Delhi; NTI, Bengaluru and CMC Vellore are certified for performing LCDST to Delamanid.

Quality Assurance

- Policy of NTEP is to provide quality assured diagnostics both in public as well as private sector through an in-built routine quality assurance system for all diagnostic tests offered.
- EQA for the NRLs is conducted through WHO Supra-National Reference Laboratory (SNRL), NIRT, Chennai and the coordinating WHO SNRL network, Antwerp, Belgium.
- EQA for NAAT is conducted using Dried Tube Specimen (DTS) for public as well as private sector laboratories.
  - **EQA for CBNAAT:** NRL- NTI, Bengaluru supported by FIND has augmented the in-country capacity to manufacture large volumes of proficiency testing (PT) panels for EQA.
    - A total of **1,287** GeneXpert machines (**1213** public sector and **74** private sector) across **1,147** sites participated, out of which **1,259 machines (97.82%)** showed satisfactory performance.
    - Post-EQA, visits were carried out and repeat panels were sent to sites with unsatisfactory scores and false results, to verify the implementation of corrective action. It is planned to expand coverage of this annual activity to the private sector in 2023.
    - **EQA for Truenat** was successfully piloted with the DTS panel method. EQA for **841** machines across **797** sites in **9** states was undertaken using Dried Tube Specimens (DTS) panels in 2022. Of these, **764** machines **(90.84%)** reported satisfactory results. It is planned to scale up this activity to nearly **2000** sites in 2023.
- **NABL accreditation:** 19 C&DST laboratories are NABL accredited and thirteen additional laboratories have initiated activities towards obtaining NABL accreditation:
  a. IRLs- AIIMS New Delhi; Trivandrum, Madurai, Patiala, Dharampur, Agra, Indore and Bhopal.
  b. C&DST laboratories -NIRTH Jabalpur, GRMC Gwalior, GMC Kozhikode , GMC Jamnagar, and GMC Surat.

Human Resource Development:

The following National level training programs for laboratory personnel were organized:

- Training for LPA (first and second line), liquid culture and DST, Truenat as well as EQA for NAAT.
- Truenat Training: A total of **38** batch refresher trainings and **57** induction trainings were carried out for staff from **1,484** Truenat sites across 16 states.
- Hands-on training on SOP to staff at the five Whole Genome Sequencing facilities
- Training for Biomedical Engineers at National Reference Laboratories on

maintenance of C&DST laboratory equipment and transition of equipment maintenance at State / Institute level.

- Continued capacity building of C&DST laboratory staff in LIMS version 2.0 installed at C&DST Laboratories.
- Induction and refresher training module designed and developed to promote self/ assisted E- learning platforms.
- Online submission of monthly laboratory indicators for Smear microscopy and NAAT (CBNAAT & Truenat) were made available in Ni-kshay for direct submission of monthly indicators from the diagnostic facilities. National ToT for NRLs & IRLs was conducted in June 2022.

Diagnostic tests performance by the laboratory network (2022)

In 2022, 1,39,14,910 presumptive TB patients were offered Smear Microscopy through 23,038 Microscopy Centres, and 6,31,683 (4.5%) patients were diagnosed as TB.

NAAT facilities in the country were increased from 3760 in 2021 and 5090 in 2022. The details of the tests conducted in 2022 are given below:

Table 3.2: NAAT 2022

NAAT	No. of tests conducted	MTB detected	R Resistant
CBNAAT	23.65 Lakhs	525088 (22%)	42026 (8%)
Truenat	34.83 Lakhs	529196 (15%)	21659 (4%)

Table 3.3: First-line LPA 2022

No. of tests conducted	MTB Detected	H & R Sensitive	H mono Resistance	R mono Resistance	MDR TB (H& R Resistance)
3,09,719	2,88,549 (94.4%)	2,40,906 (78.8%)	20,463 (7.1%)	7055 (2.4%)	20,125 (7.0%)

Table 3.4: Second-line LPA 2022

No. of tests conducted	MTB Detected	FQ & SLI Sensitive	FQ Resistant	SLI Resistance
55,004	47,749 (89.0%)	30,718 (64.3%)	14,206 (29.8%)	784 (1.6%)

Liquid culture – 2.98 lakh culture tests were performed during the year 2022.

Table 3.5: Second-line LC-DST 2022

SL DST Conducted	No. of FQ & SLI Sensitive	No. of Pre-XDR (MDR + FQ resistance detected)	No. of XDR detected (FQ + SLI Resistance)
10143	3894	2411	140

3B

TB Case Finding

Chapter 3B

TB Case Finding

Case finding in tuberculosis consists of early identification of individuals with presumptive TB signs/symptoms at the first point of contact with the health system (be it public or private sector) followed by prompt diagnosis using high-sensitivity diagnostic tests. Broadly, case finding can be categorised into two:

1) **Passive case finding**: It refers to a person-initiated pathway to TB diagnosis. Intensified case finding is a component of passive case finding which involves systematic screening of all people seeking care in a health facility or a clinic for identification of people at risk for TB.

2) **Active case finding**: It refers to the systematic screening for active TB in at-risk populations, typically implemented outside the health facilities (community or congregate settings). Contact tracing is a component of active case finding.

Bending the epidemiological curve of TB to meet the End TB targets requires more than just screening people who are seeking care but involves being able to identify those with active TB in the community. This was reiterated by the findings of the recently concluded National Prevalence survey. In the NATBPS 2019-21 it was observed that up to 64% of those with presumptive TB symptoms or signs in the general population did not seek care. Also, among those who were diagnosed during the survey, more than 50% did not have typical signs or symptoms suggestive of TB but had an abnormality in the chest X-ray which led to their TB diagnosis.

Under NTEP, the following indicators helps in monitoring case-finding efforts:

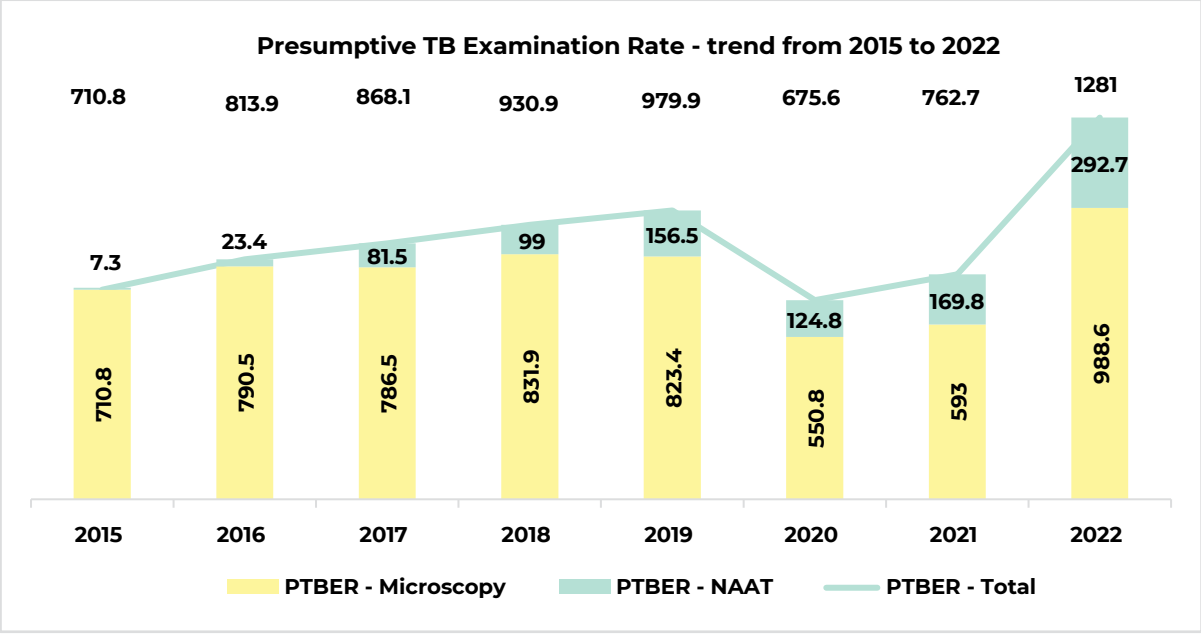
a) **Presumptive TB examination rates (PTBER)**: defined as the number of presumptive TB tested per 100,000 population,

b) **Proportion of presumptive TB offered molecular diagnostics upfront for diagnosis of TB**, - of the presumptive TB tested, the proportion that were offered a rapid molecular test for diagnosis of TB as the first test of diagnosis,

c) **Annualised TB case notification rate (ACNR)**: defined as the number of TB cases notified per 100,000 population on an annualised basis.

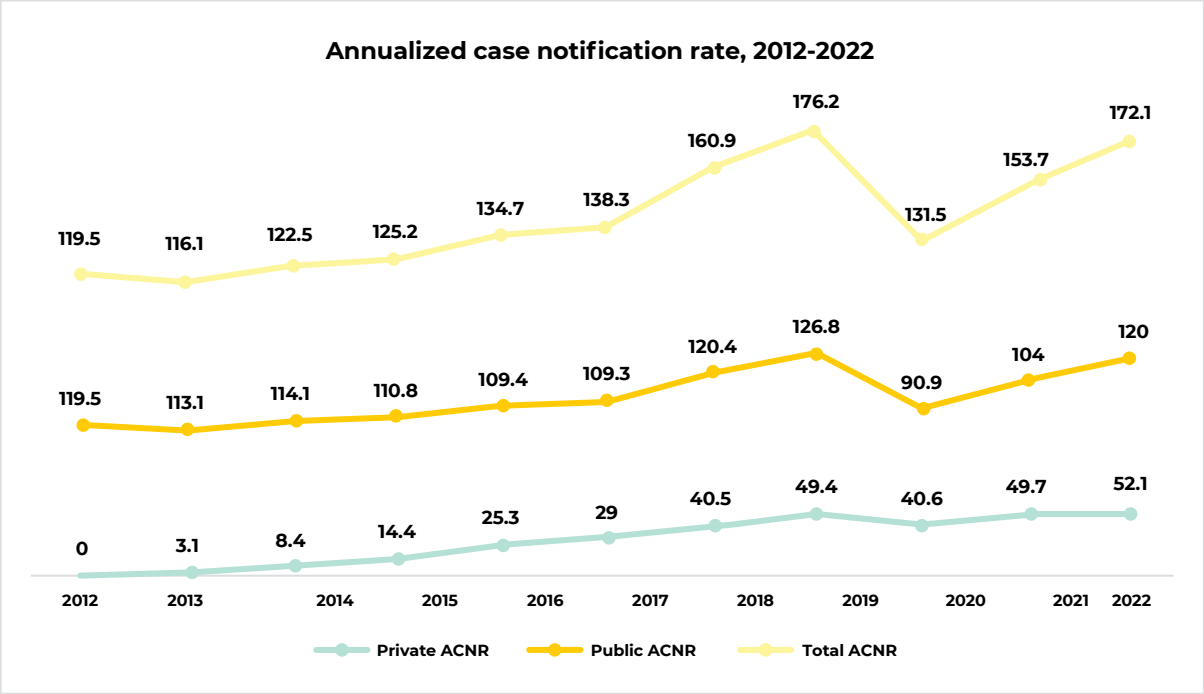
In 2022, the PTBER for the country increased to 1281 per lakh population from 676 (89% increase) in 2020 and 763 (68% increase) in 2021. The number of rapid molecular diagnosis tests that were offered for presumptive TB testing was 294 per lakh population (**Figure-2**).

Figure 3.3: Trend in the Presumptive TB Examination Rate (2015–2022)



The year 2022 also saw the notification of the highest number of TB cases at 24.2 lakhs, leading to an increase of the annualised TB case notification rate (ACNR) from 153 per lakh in 2021 to 172 per lakh population. Most the States and UTs reported an increase in the number of notified TB cases in 2022 compared to 2021. In the private sector, the CNR achieved for 2022 was 52 cases per lakh population, the highest ever achieved under the programme.

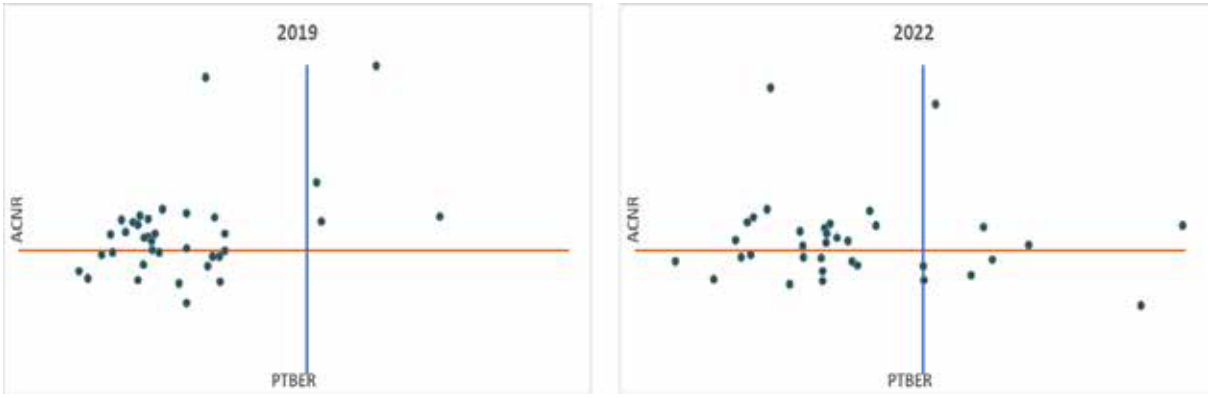
Figure 3.4: Trend in case notification rate (public, private and total)



Distribution of States between PTBER and ACNR - 2019 and 2022

To understand the epidemiology of TB, the PTBER of the State/UTs were overlaid against the CNR for the period of interest (4-quadrant graph. Under the 4-quadrant graph there are 4 segments: left upper segment (low PTBER, high CNR), left lower segment (low PTBER, low CNR), right upper segment (high PTBER, high CNR) and right lower segment (high PTBER, low CNR). The cut-off for PTBER was taken as 2100 per 100,000 population and cut-off for ACNR was taken as 150 per 100,000 population. It is expected that with declining burden and improved case-finding efforts under the programme, the geographies are to move to right sided quadrants and preferably to the lower segment. Under the programme, from 2019 to 2022 it was observed that there was an increase in the number of states moving to the right-sided quadrants (upper and lower) corroborating to their augmented case finding efforts.

Figure 3.5: Comparison of PTBER and CNR between 2019 and 2022



Characteristics of notified TB patients:

Demographic features:

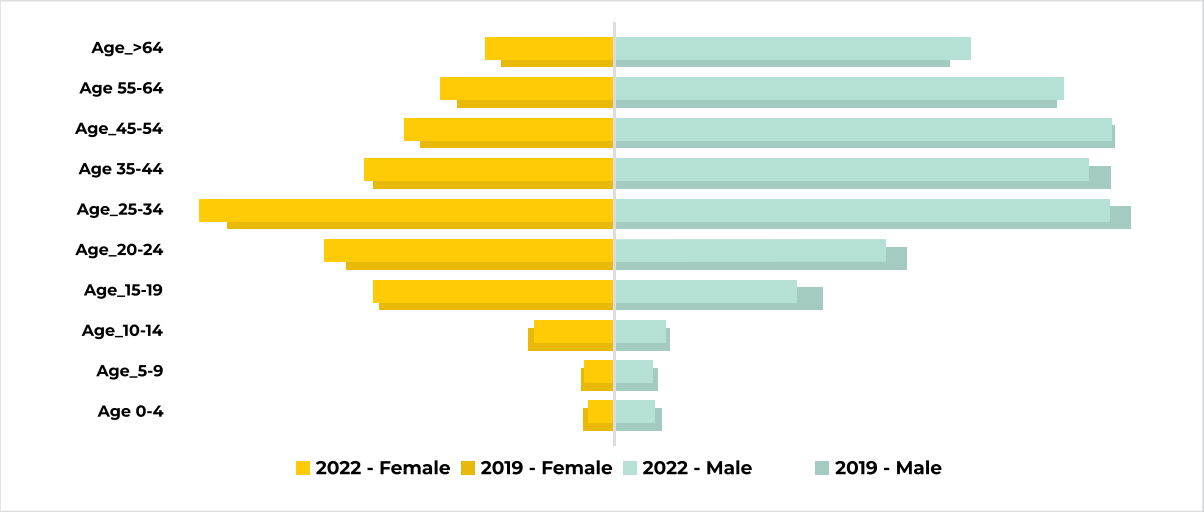
- About 39% were female, 5.6% belonged to the paediatric age group (less than or equal to 14 years of age), 23.6% were aged 55 years or above.
- There has been a gradual increase in the proportion of notified TB cases who were in older (>54 years) age groups with a simultaneous decrease in the proportion in the younger (<25 years) age groups. These characteristics, however, have largely remained uniform over the years from 2019 to 2022.

Characteristics of TB:

- Around 24% had extra-pulmonary TB, 88% had newly diagnosed TB, 3.7% had relapse TB.
- The common sites of extra-pulmonary TB were lymph node (26.3%), pleural (23.3%), abdomen (17.4%), spine (4.8%), meninges (2.8%), bone (excluding spine; 2.7%) and genitourinary tract (1.6%).

Figure 3.6: Age-sex pyramids of notified TB patients from 2019 to 2022

Figure 3.7: Age-and sex- specific notification rate compared between 2019 and 2022



The Union Territories of Puducherry, Dadra and Nagar Haveli and Daman & Diu, Chandigarh and Delhi showed the highest percentage difference between notified TB cases based on diagnostic and current facilities, suggesting a high proportion of net outward transfer of diagnosed patients to neighbouring States/UTs.

Introduction of the automated TB case-finding report in Ni-kshay: The TB case finding reports were reported by the districts through manual form and compiled by CTD. This report consisted of consolidated numbers of the TB and DR-TB patients diagnosed and initiated on respective treatments.

After a series of discussions and brainstorming, for the first time ever, the automated TB case-finding report was developed in and auto-generated from Ni-Kshay. The programme decided and conveyed to the States/UTs to use the automated TB case-finding report generated from Ni-kshay from January 2022 onwards for programmatic monitoring purposes.

The report is based on 'case' concept and not on 'episode' concept. As per the guidelines for PMDT in India 2021, the latest definitive outcome assigned would be taken into account for those cases where treatment outcome is declared as "treatment regimen changed" in the initial months of treatment before any definitive treatment outcome applies.

This automated TB case-finding report, apart from reducing the additional effort of the field staff in report submission, will provide a detailed case-wise line list of persons affected with TB as well, thereby supporting the treatment monitoring by the field staff.

Table 3.6: Case finding report based on the "Case concept" for 2022

No.	Indicator	Achievement in 2022
1	No. of notified bacteriological confirmed TB patients	12,32,149 (51%)
2	No. of bacteriologically confirmed TB patients with valid rapid DRT result for at least Rifampicin (RS/RR)	9,38,217 (76%)
3	No. of Rifampicin resistant TB patients diagnosed (MDR/ RR-TB)	63,801
4	No. of Rifampicin resistant TB patients with a valid DST result available for at least fluoroquinolone	23,846 (37%)
5	No. of Rifampicin resistant TB patients with FQ resistance diagnosed (Pre-XDR-TB)	12,002
6	No. of Rifampicin resistant TB patients with FQ resistance with a DST result available for Bedaquiline/ Linezolid	1187 (10%)
7	No. of Rifampicin resistant TB patients with FQ resistance diagnosed with resistant to Bedaquline/ Linezolid or both (XDR-TB)	85
8	No. of bacteriologically confirmed patients (with Rifampicin resistance not detected) with a DST result available for at least Isoniazid	2,04,034 (23%)
9	No. of Rifampicin resistance not detected patients with Isoniazid resistance diagnosed (H Mono-poly DR-TB)	15,953

Active case finding: Active case finding through systematic screening of selected high-risk/vulnerable groups for tuberculosis is being implemented by all the States/UTs since 2017 as part of the implementation of the NSP 2017-25. Such vulnerable groups specifically need active attempts by the system to minimise avoidable delays in detection and prompt treatment initiation, since they are often at higher risk of exposure, sub-optimal health seeking behaviour, comorbidities, difficulty in access to healthcare services and poorer treatment outcomes from the disease.

In 2022, across the country a total of 22.1 crore individuals were screened for presumptive TB symptoms/signs as part of active case-finding efforts. Of the screened, 0.9% (19.5 lakhs) were examined and tested for TB diagnosis and of which 48,329 (2.5%) were diagnosed.

Also, the year 2022 saw the deployment of around 80 mobile diagnostic units equipped with digital X-ray machines across various States/UTs. Few states such as Tamil Nadu and Rajasthan have procured mobile X-ray diagnostic units for active case finding in 2022 as part of their State Strategic plan towards ending TB by 2025.

Way Forward

1) Scaling up of AI enabled portable and handheld X-ray units for screening during active case finding,
2) Systematic planning and implementation of active case finding campaigns among select vulnerable groups and intensified case finding activities within health facilities,
3) Further decentralisation of rapid molecular diagnostics to saturate NAAT capacity thereby ensuring optimal utilisation.

Success stories from the field

Gujarat

Village-wise presumptive examination & village-wise TB patient -Analytical view.

To develop and pilot the strategies for "TB Free villages", an in-depth analytical exercise with the help of WHO and development partners was carried out in the State of Gujarat from 19th to 23rd April 2022.

Analytical exercise: Retrospective mapping of village-wise presumptive TB examination and TB Notification for the one year i.e., 2021 in 8 District of Gujarat was carried out. A 4-quadrant graph was drawn using the dataset from the above 8 districts. The graph was intended to provide an understanding of the burden of TB against the programmatic efforts at village level, thereby enabling data-driven policy making by Gram Panchayat in the State.

Outcome: Villages were categorised under 4 categories from the analytical exercise and with suggestive actions for each category.

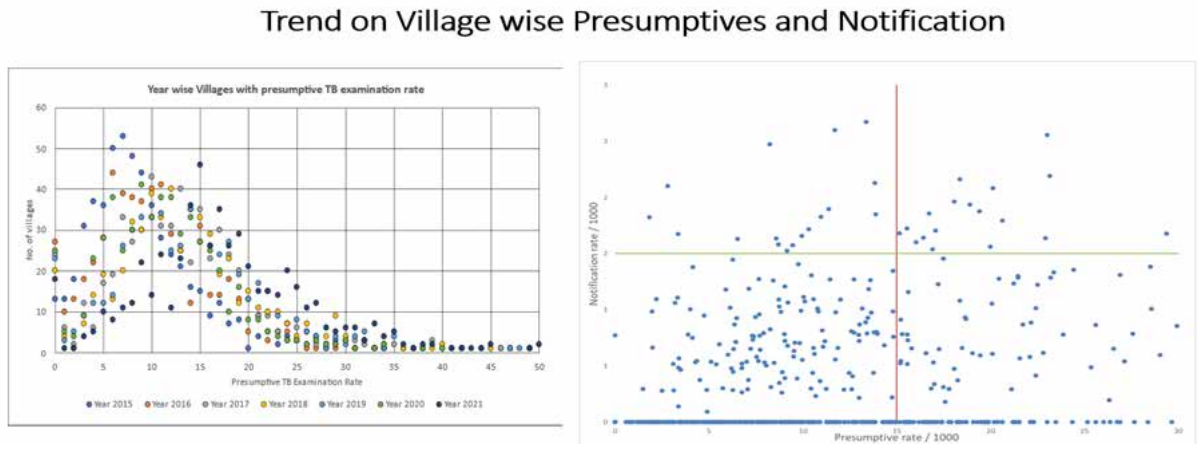


Figure 3.8: Trend on village-wise TB patients – presumptive and notification

Low Presumptive / High Notification	High Presumptive / High Notification
• Access to diagnostic services to be improved • Root cause Analysis • Contact Tracing	• Intensified case finding • Roll out TPT • Vulnerability Mapping • Frequent ACF
Low Presumptive / Low Notification	**High Presumptive / Low Notification**
• Root Cause Analysis of lack of efforts in case finding • Access to diagnostic services to be improved • Reverse contact tracing	• Ensure quality assurance process to rule out false Negative • Quality of referrals
These actions are Suggestive for TB Elimination at Village level but not exhaustive	

Table 3.7: Action points for villages lying various quadrants of the plot

Himachal Pradesh

Handheld X-ray, a new tool in the field for expediting Ending TB in Himachal Pradesh.

District Una (0.5 million population) in Himachal Pradesh has an industrial area with over 350 functional industrial units. There is a high inflow of migrants into the State who mainly reside in Urban slums. Restrictive accessibility makes them vulnerable to out-of-pocket expenditure and delays in receiving appropriate care.

Intervention: District Administration and Health Department of Una with an objective to identify TB cases early, with a CSR support, procured a Handheld X Ray machine (Battery Operated X-Ray Machine with Flat Panel Detector) equipped with AI function deployed for door-to-door screening of slum population. A team composed of 1 X-Ray technician, a local ASHA and health worker was formed, and they carried out verbal screening for signs/ symptoms suggestive of TB and offered upfront chest X ray to all eligible persons after ruling out medical contraindications.

Observation: The activity was carried out for a total of 20 days. During which 2436 individuals have been screened using the X-Ray Machine and the AI identified 72 presumptive TB cases based on a lesion in Xay image. All presumptive cases were offered NAAT examination which yielded 4 new TB cases. Remaining individuals with some lesion in chest X-ray (AI identified) but negative NAAT results were further evaluated by the physicians in the Regional Hospital Una.

Conclusion: Upfront use of Handheld X ray machine in the vulnerable population gives additional yield of TB cases. Infectious cases are diagnosed early, initiated on treatment, thus further spread is prevented. Low-dose radiation exposure (6mA) and high-resolution imaging capability of the machine increases its utility in the field. Since this Xray machine is portable, the issue of health accessibility in remote areas can be addressed in other areas of Himachal Pradesh or in similar geographies in India.

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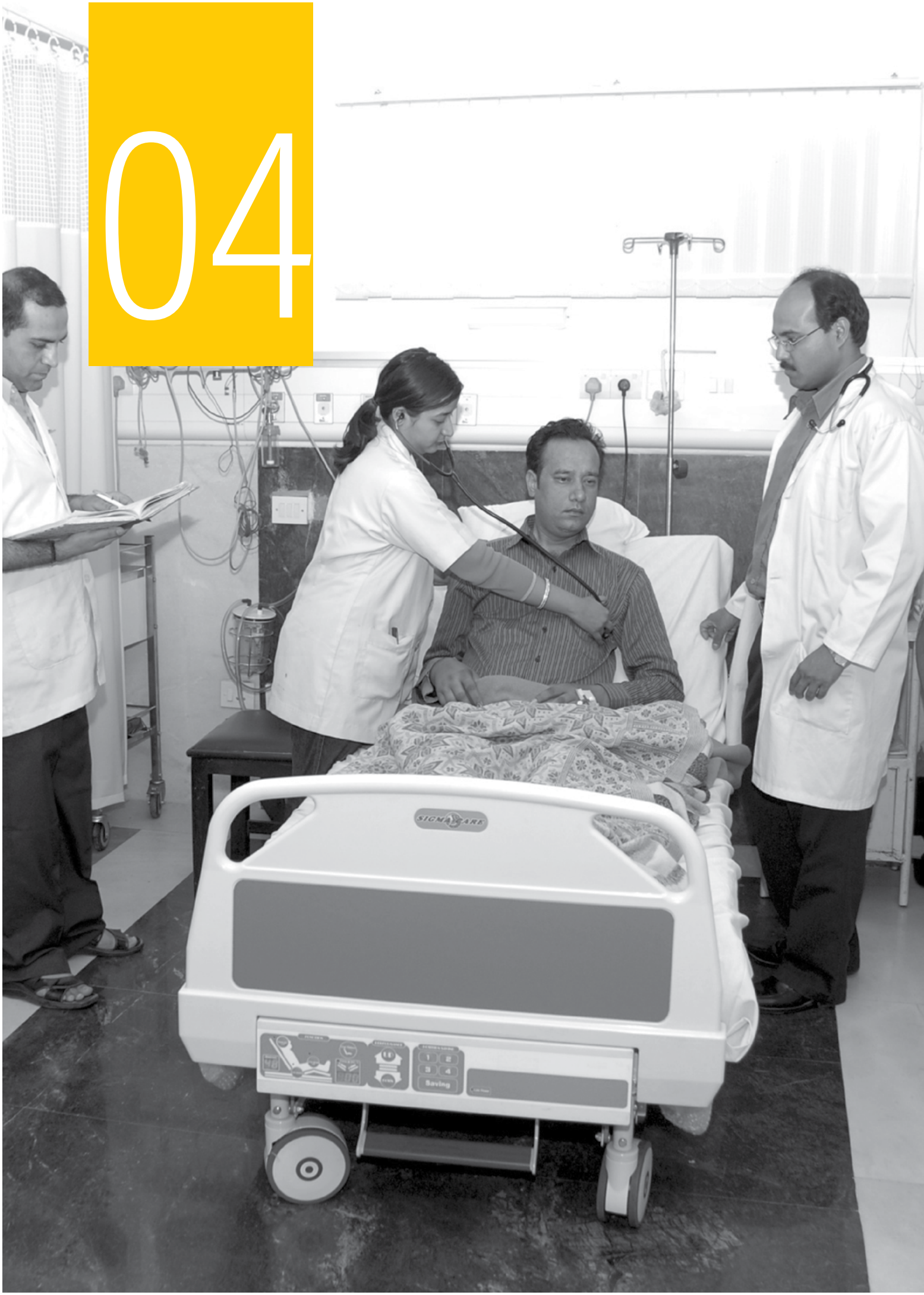


Treatment Services

Chapter 4

Treatment Services

The objectives of providing TB treatment services are (1) to rapidly make the patient non-infectious, break the chain of transmission and decrease the probability of transmission of TB infection; (2) to decrease case fatality and morbidity by ensuring relapse-free cure; and (3) to minimize and prevent the development of drug resistance.

With the lifting of the pandemic-related restrictions and streamlining of services, there was a rise in the case notification of all forms of TB.

A. Management of drug-susceptible TB

There have been provisions under the NTEP, to offer multi-drug regimen in fixed-dose combinations (FDCs) as per the weight band to persons affected with TB under direct observation of a trained treatment supporter and/or digital adherence technologies. All notified persons affected with TB are eligible to receive public health action measures that include services like i) patient home visit as per convenience of patient, ii) counselling of patient and family members, iii) treatment adherence and follow up support to ensure treatment completion, iv) contact tracing, symptoms screening, evaluation of symptomatics and offering chemoprophylaxis to eligible contacts, v) offering HIV counselling and testing, drug susceptibility testing, and vi) linking with available social welfare and support schemes. The patients are initiated on treatment immediately or at least within 3 days of diagnosis by the respective health facilities across the country. Patients residing outside the catchment area of a particular diagnostic health facility, are initiated on treatment and provided seven days of transit dose while transferring the patient to the health facility near the residence of the patient in Ni-kshay. NTEP is providing access to free and quality anti-TB drugs for all patients seeking care from the public and private sectors.

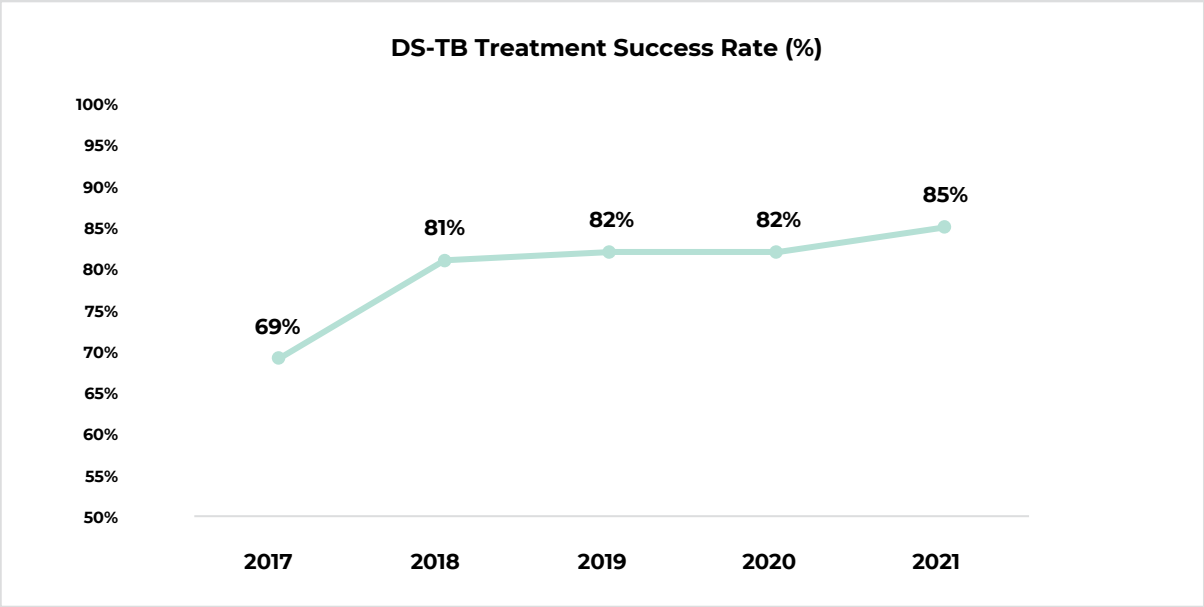
To ensure optimal quality of care, it is essential to identify adverse events during the course of treatment, report it to the programme at the earliest and provide appropriate management to the person affected with TB. As a step in this regard, the adverse event module has now been made available in Ni-kshay to manage events from reporting till declaration of an outcome.

NTEP has emphasized real-time Ni-kshay entries and insisted on a 'Digital first, paper second' policy for data management and information flow along the TB care cascade.

◄ Performance during 2022:

In 2022, a total of 23,58,664 patients were diagnosed with drug-susceptible TB (DS-TB) of whom, 22,48,816 (95.3%) patients were initiated on treatment. Among notified DS-TB cases, 14,33,922 (60.8%) were male, 9,22,649 (39.1%) were female and 1,34,001 (5.7%) were below 14 years of age. Among the persons diagnosed with DS-TB in 2021, 85% had been successfully treated, 4.2% died during treatment, 2.6% were lost to follow-up, 1.9% were assigned treatment failure outcome and 1.6% were not evaluated (including still on treatment). The treatment success rate of patients notified from public and private sector were 85% and 87% respectively.

Figure 4.1: Trend of treatment success rate of DS-TB



B. Management of Drug-Resistant TB

The management of drug-resistant TB (DR-TB) is complex and hence, rapid and universal drug-susceptibility testing (UDST) in all DS-TB cases is crucial for early identification of DR-TB to choose the most appropriate treatment for every patient and monitor treatment adherence to achieve the goals of TB treatment detailed earlier. There are 792 DR-TB treatment centres. Among these, 30 private DR-TB centres were established under a MoU in accordance with the NTEP guidelines.

In 2021, the shorter oral Bdq-containing MDR/RR-TB regimen was introduced to replace the shorter injection-containing MDR-TB regimen in a phased manner. A series of meetings were conducted with the States to review the preparatory activities. The programme completely transitioned to the shorter oral Bdq-containing MDR/RR-TB regimen in all States/ UTs in April 2022.

◄ Performance in 2022:

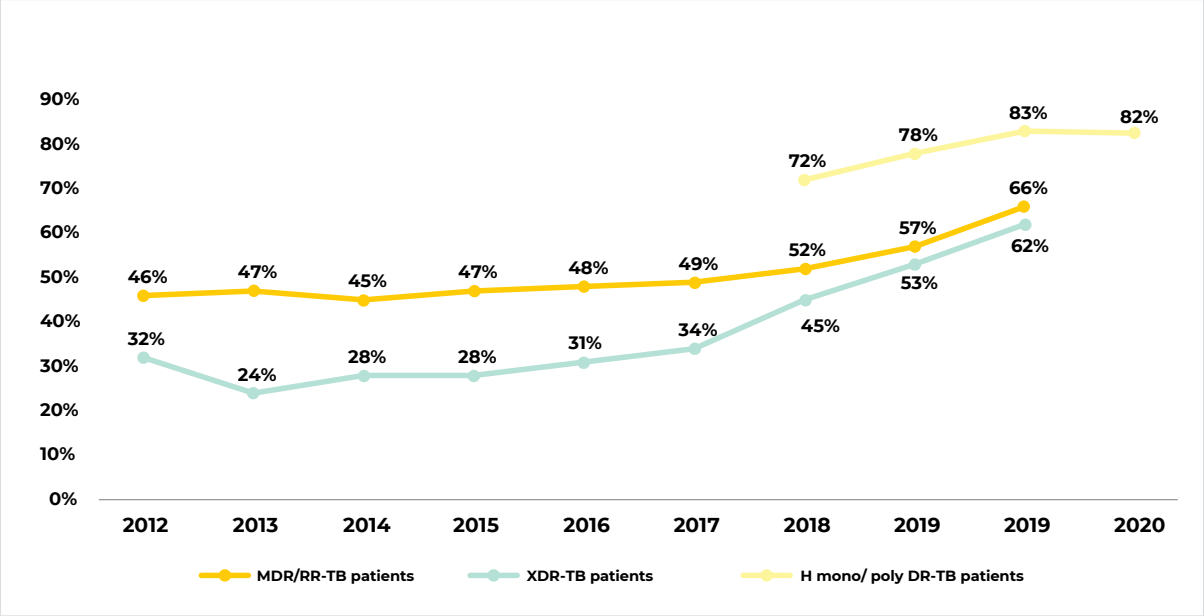
In 2022, a total 63,801 MDR/RR-TB, including 12,002 Pre-XDR-TB (Fluoroquinolone resistant), 85 XDR-TB (Fluoroquinolone with Linezolid and/or Bedaquiline resistant) and 15,953 H mono/poly DR-TB patients were diagnosed. Of these, 57,749 (91%) MDR/RR-TB including 11,198 (93%) Pre-XDR-TB, 83 (98%) XDR-TB and 15,227 (95%) H

mono/poly DR-TB patients were initiated on the appropriate treatment regimen respectively. A total of 30,789 (53%) patients were initiated on shorter MDR/RR-TB regimen and 26,960 (47%) on longer oral M/XDR-TB regimen. 403 pre-XDR -TB or treatment interrupters or non-responders to treatment among MDR-TB patients were enrolled on the BPaL regimen under the ongoing pragmatic clinical trial under NTEP led by NIRT Chennai, in collaboration with CTD and WHO India, supported by USAID through The Union iDEFEAT TB project.

From the 2021 cohort, out of 16,186 patients treated with H mono/poly DR-TB regimen, a total of 13,303 (82%) were successfully treated, while 1179 (7%) died during treatment, 843 (5%) were lost to follow-up, 300 (2%) were treatment failures (including regimen changed), 561 (3%) were not evaluated (including patients still on treatment or outcome not reported). Also, out of 22,096 patients treated with a shorter MDR/RR-TB (Inj. containing) regimen, a total of 15,104 (68%) were successfully treated, while 2920 (13%) died during treatment, 2635 (12%) were lost to follow-up, 415 (2%) were treatment failures (including regimen changed), 1022 (5%) were not evaluated (including patients still on treatment or outcome not reported).

From the 2020 cohort, out of 41,922 MDR/RR-TB patients initiated on treatment, 28,452 (68%) patients were successfully treated, 5,628 (13%) died during treatment, 4,506 (11%) were lost to follow-up, 834 (2%) failed (including regimen changed), 2,502 (6%) were not evaluated (including those still on treatment and outcome not reported). A total of 12,570 MDR/RR-TB patients were initiated on longer oral M/XDR-TB regimen.

Figure 4.2 - Trend of treatment success rate of M/XDR TB patients



C. Differentiated TB Care in Ni-kshay

The technical guidance for a comprehensive package for Differentiated Care of TB patients was introduced in 2021. This approach has a pivotal role in reducing morbidity and preventable mortality among TB patients by implementing this comprehensive package at various health facilities in India. It focuses on the clinical care of TB patients by evaluating the patient for basic clinical parameters (vitals, general conditions, nutritional status etc.) and routine investigations to promptly identify patients with severe disease or risk of adverse effects. Timely referral by early detection of high-risk TB patients (through identification of symptoms and signs) and hospital-based care, whenever needed, will help to reduce mortality due to TB.

The recording and reporting of the Differentiated Care of TB patients has been made available on Ni-kshay for the States/ UTs to monitor the activity.

D. NITRD-CTD-NTF National Difficult to treat TB Clinic

National Institute of Tuberculosis and Respiratory Diseases (NITRD), New Delhi in collaboration with CTD and National Task Force (NTF) is conducting Difficult-To-Treat TB Clinic (DT3C) at National level successfully since 2020. The case-based TB clinics have been conducted with involvement of expert clinicians with the objective of providing solutions to difficult cases and capacity building of peripheral doctors. A total of 57 difficult-to-treat TB cases have been discussed and managed through this mechanism till February 2023.

Difficult-to-treat TB clinic has helped to enhance the clinical management skills of physicians dealing with DR-TB management in periphery. The national clinic reached over 3000 attendees in 2022.

Considering the impact of DT3C clinics organized at national level, to accommodate the local requirements in management of DR TB, State PMDT committees were guided to conduct State/UT based DT3C. Based on the guidance of CTD, 26 States/ UTs have conducted around 210 sessions following ECHO Hub and spoke model during 2022.

E. Improving the quality of DR-TB Care through Centres of Excellence (CoE) for DR-TB care

As envisaged in the NSP 2017-2025 and articulated in the Guidelines for PMDT in India (2021), the NTEP has established five CoE for DR-TB care to offer a platform to provide uniform high standards of care to the people affected with DR-TB, in a 'HUB and SPOKE' model.

A framework for the assessment of institutions was developed and a team consisting of subject experts, members from CTD, The Union and WHO-NTEP technical support network conducted initial site assessment visits to the selected ten institutions (NITRD New Delhi, RBI PMT New Delhi, JJ Hospital Mumbai, GHTM Tambaram, KGMU Lucknow, RG Kar medical College Kolkata, NEIGHRIMS Shillong, SMS Medical College Jaipur, BJ Medical College Ahmedabad and Gandhi Medical College Bhopal). Critical gaps were identified for each institution and an action plan to fill those gaps was prepared and implemented. The training on counselling soft skills for the nursing and paramedical staff of the institutions was conducted. Institutions eligible to be the Spokes (Nodal DR-TB centres) for each CoE were identified. Baseline assessment of a few Spokes was also undertaken to identify the needs and critical gaps.

Five institutions were declared as CoE in DR-TB care by MoHFW, GoI in the month of October 2022 namely NITRD New Delhi, RBI PMT New Delhi, JJ Hospital Mumbai, GHTM Tambaram, and KGMU Lucknow.

A consultation meeting was held with designated CoEs and all concerned stakeholders to finalize the action plan for providing clinical advice, capacity building & mentoring. To strengthen the linkages between CoEs and their Spokes and to finalize the action plan for each individual CoE, inception meetings were organized at CoEs with their concerned Spokes.

- To address the unmet need for TB Thoracic surgery in the country, a three month 'Residential Skill Training Programme for TB Thoracic Surgery' was initiated at NITRD, Delhi. The first batch of two candidates has completed their training.
- A consultation was held at GHTM Tambaram in the month of November 2022 with the objectives to discuss and draft the guidance document on palliative care for DR-TB patients and to finalize the action plan for GHTM Tambaram to implement the same.
- NITRD has developed a 'Manage TB India App' as a tool for clinicians to enable decision making in designing probable effective treatment regimen for DR-TB as per national guidelines based on the inputs from drug susceptibility testing results, clinical and other laboratory parameters.

NTEP under the leadership and guidance of MoHFW, GoI, steered the entire process of establishing the 'Hub and Spoke' model through the Centres of Excellence in DR-TB care and closely working with the CoEs to perform their roles as envisioned. The USAID-funded, The Union-led iDEFEAT TB Project in implementing this approach while the WHO Country Office for India and its TB technical support network is providing the technical support in establishing, assessing, upgrading and operationalizing these CoEs to function as a Hub and Spoke Model.

F. DR-TB consortium

With the aim to strengthen partnerships and promote innovations in DR-TB space, a DR-TB consortium was formed by NTEP with the support of the iDEFEAT TB Project. DR-TB consortium offers the platform for engaging the corporate sector to plan, mobilize CSR resources, strengthen partnerships and disseminate learnings from innovative approaches for further adoption and scaling up. Apart from the corporates, the consortium includes members from NTEP, WHO India, The Union and other partners.

G. Building capacity of front-line TB staff on counselling soft skills

NTEP with the support of Tata Institute of Social Sciences (TISS) has been providing counselling services for DR-TB patients in Maharashtra, Gujarat, Karnataka and Rajasthan as a part of "Saksham Project" since September 2016 through the Global Fund Grant. In the current implementation cycle, NTEP has created a pool of master trainers across India to build the capacity of front-line TB staff (especially STS and TB-HV) on counselling soft skills.

In the third phase of The Global Fund grant implementation, NTEP with support of TISS, has developed a national strategy for building capacities of front-line TB staff on counselling soft skills. A three-day capacity building for counselling training, where-in the training programmes are experimental and participatory in nature and focus on "un-learning" as much as on learning and are entirely power point presentation free. The training is designed for reflection, introspection and developing a patient-centric, empathetic approach and practising skills.

Under the project, TISS has engaged five university partners for undertaking the cascade training programmes. Till December 2022, 409 master trainers and 672 NTEP front-line staff have been trained in counselling soft skills.

Key highlights

- Implementation of the "Differentiated TB Care" package of services to reduce mortality by enabling recording and reporting through Ni-kshay.
- Complete national transition to shorter oral Bedaquiline containing MDR/RR-TB regimen.
- Introduction of automated PMDT case finding report in Ni-kshay
- Approval of the "Guidelines on new shorter oral regimens for treatment of drug-susceptible and drug-resistant TB" in India.

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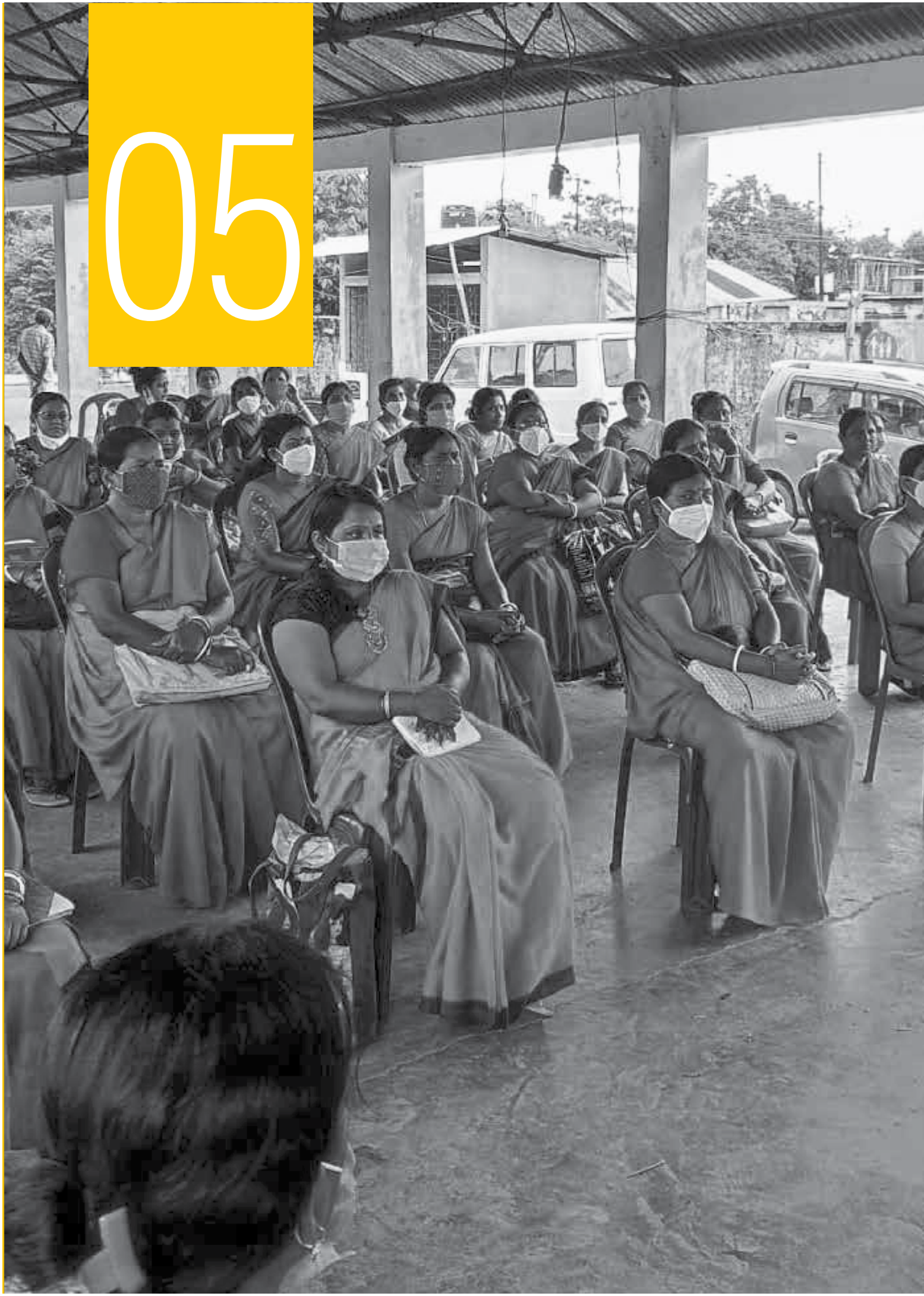
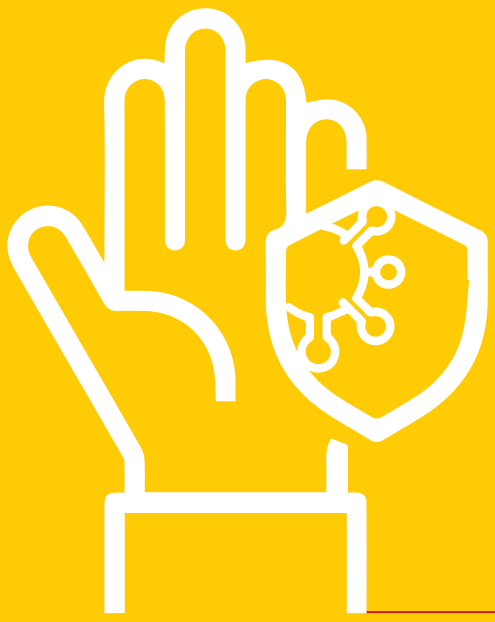




TB Prevention

Chapter 05

TB Prevention

Introduction

The strategies and actions required for ending TB have been integrated into four strategic pillars – Detect, Treat, Prevent and Build under India's National Strategic Plan (NSP 2017-25) for ending TB by 2025. The TB prevention strategies include nationwide programmatic scale-up of TB preventive treatment (TPT) for high-risk populations and airborne infection control (AIC) in health care and other settings.

TB infection and TB Preventive Treatment (TPT)

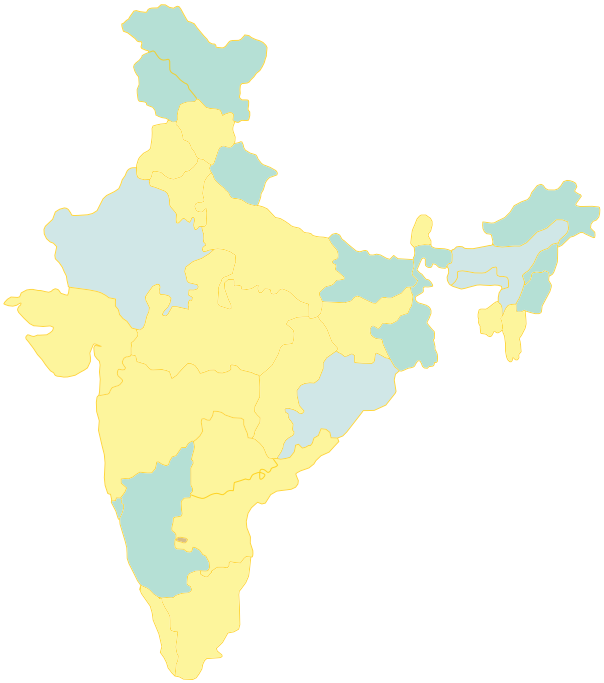
National TB prevalence survey (2019-21), India estimated 31.3% crude prevalence of TB infection (TBI) among the population aged 15 years and above. In August 2021, the NTEP expanded the policy to offer TPT to all household contacts (HHC) of pulmonary TB patients (prioritized in pulmonary bacteriologically confirmed TB [PBCT]) and other high-risk groups beyond the existing policy of TPT for PLHIV (erstwhile isoniazid preventive therapy [IPT])and HHC <5 years (erstwhile chemoprophylaxis in children).

◄ Programmatic management of TPT:

In 2022, the States have demonstrated unprecedented politico-administrative commitment and introduction of TPT in the States and districts after release of guidelines for programmatic management of TPT (PMTPT) in India in August 2021 by the Hon'ble Union Health Minister.

State level TPT committees have been established in 28 states and 21 states held committee meetings under the chairpersonship of respective Principal Secretary - Health or Mission Director -Health.

The task of TPT scale-up has been taken up in 2022. By the end of 2022, 722 (94%) districts of India have expanded TPT as per the national guidelines. TBI testing services were established in 246 (32%) districts either as in-house facilities or linked with in-house or outsourced private facilities. Additionally, 476 (62%) districts have expanded TPT in eligible HHC after ruling out active TB while awaiting establishment of TBI testing services. The rest of the 41 (6%) districts have planned to expand TPT services by first quarter of 2023.



State TPT Committee formed, No meeting held

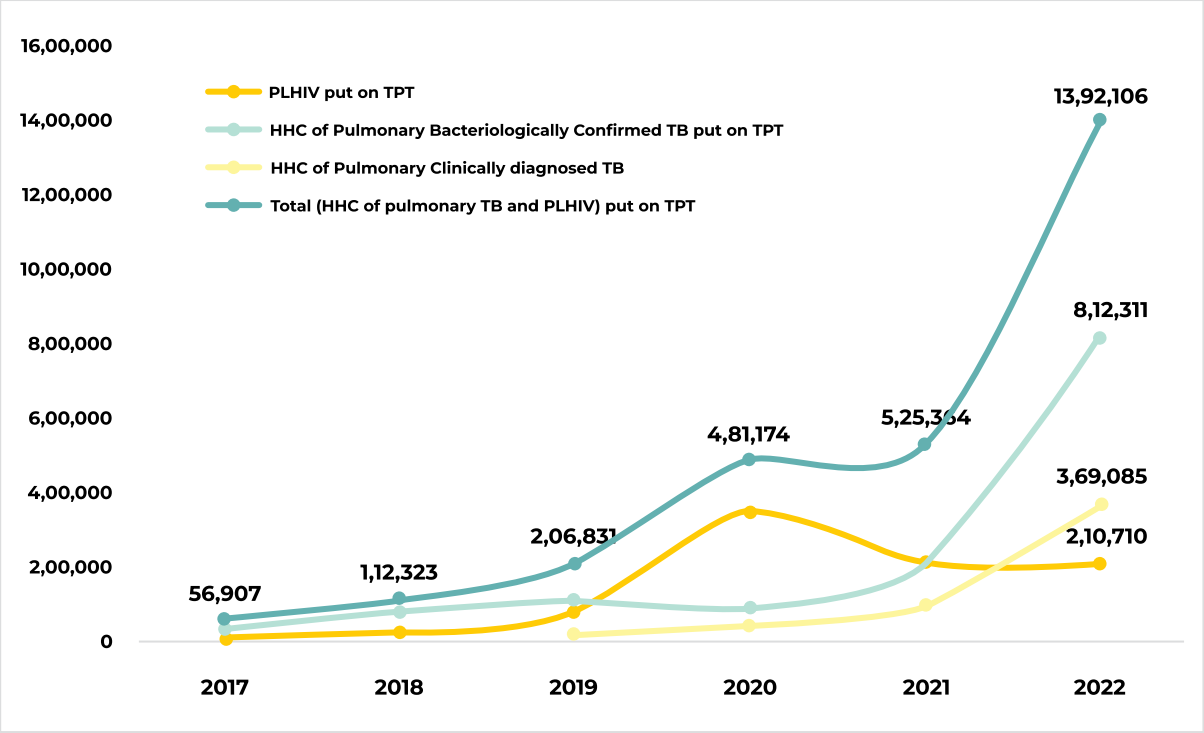
State TPT Committee formed, Meeting held

No State TPT Committee

Figure 5.1: State-level TPT committees formed in various States

◄ Scale up of TPT:

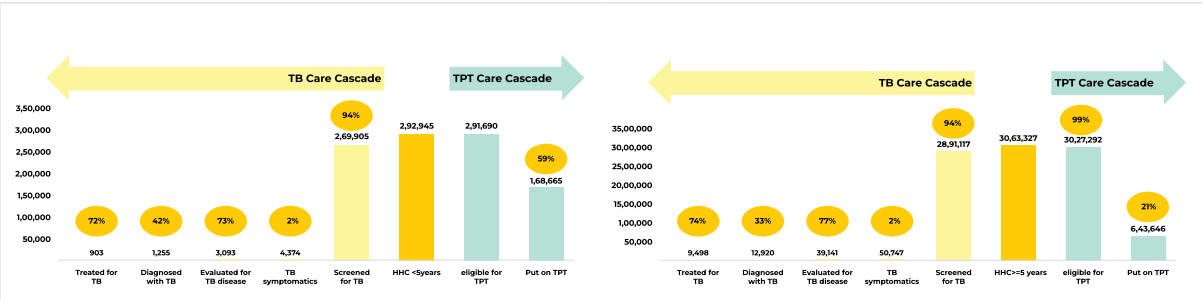
TPT coverage increased considerably after the expansion of services by geography and high-risk groups. More than 13.92 lakh eligible household contacts and PLHIV were put on TPT in 2022.



Note: Expanded the TPT to all HHC (irrespective of age) of pulmonary TB (prioritized PBCT) and other risk groups from August 2021

Figure 5.2: A graph showing Achievement in programmatic management of TPT

Cascade of TPT in HHC of PBCT is presented in below charts



Eligible for TPT are HHC <5 yrs not diagnosed TB during care cascade (2,92,945 - 1,255 = 2,91,690)

Eligible for TPT are HHC >/=5yrs positive for TBI (14,150) plus no diagnosis for TB (30,50,407) and not offered testing for TBI (30,13,1420

Figure 5.3(a) and (b): Cascade of TPT in HHC of PBCT

◄ Programmatic review of TPT

CTD has regularly reviewed the performance and has sent feedback (at least quarterly) to the States on the TPT care cascade coverage.

Review meetings on State TPT scale-up plan: States have submitted the district-wise TPT scale-up plans in 2021. The progress made in implementation of these plans were reviewed one-to-one with the States in January 2022 by CTD to provide necessary guidance and support to the states to accelerate the scale up of all districts.

◄ Showcasing India's TPT scale-up experience at the national and international forums

National workshop on TB Preventive Treatment – the experience of scale-up: CTD in collaboration with WHO - India organized a two-day national workshop on TPT on 5-6 September, 2022 in New Delhi with the objectives of annual review of the progress, experience sharing and learning of TPT implementation, TPT in contacts of DR-TB patients, the status of TPT implementation through the Global Fund projects and various ongoing operational research. The workshop was attended by more than 275 (180 physically and 95 over ZOOM live telecast) officials, field experts and consultants from CTD, National Institutes, National AIDS Control Organization, Task Force mechanism, WHO – HQ, SEARO and Country Office of India, State officials, WHO TB Consultants and partner organizations. Additional Secretary and Mission Director – Health interacted with the participants on 2nd day of the workshop and appraised about prevalence of TB infection, TPT scale-up, introduction of shorter TPT regimen through WHO support in India and requirement of programmatic introduction of shorter TPT regimen.

WHO-UNIAID meeting on key development on use of Shorter TPT regimen: a virtual meeting held by WHO Global TB Programme on 4th November 2022. In this meeting, India showcased the experience of TPT scale-up under NTEP with international participants that was well received and appreciated by the global experts.

◄ Status of JEET 2.0 and Axshya Plus – The Global Fund supported TPT model projects

Under The Global Fund grant for 2021-24, the TPT projects – JEET 2.0 and Axshya Plus are being implemented by non-government principal recipients (WJCF, FIND and The Union) and their sub-recipients in 194 districts in 22 states.

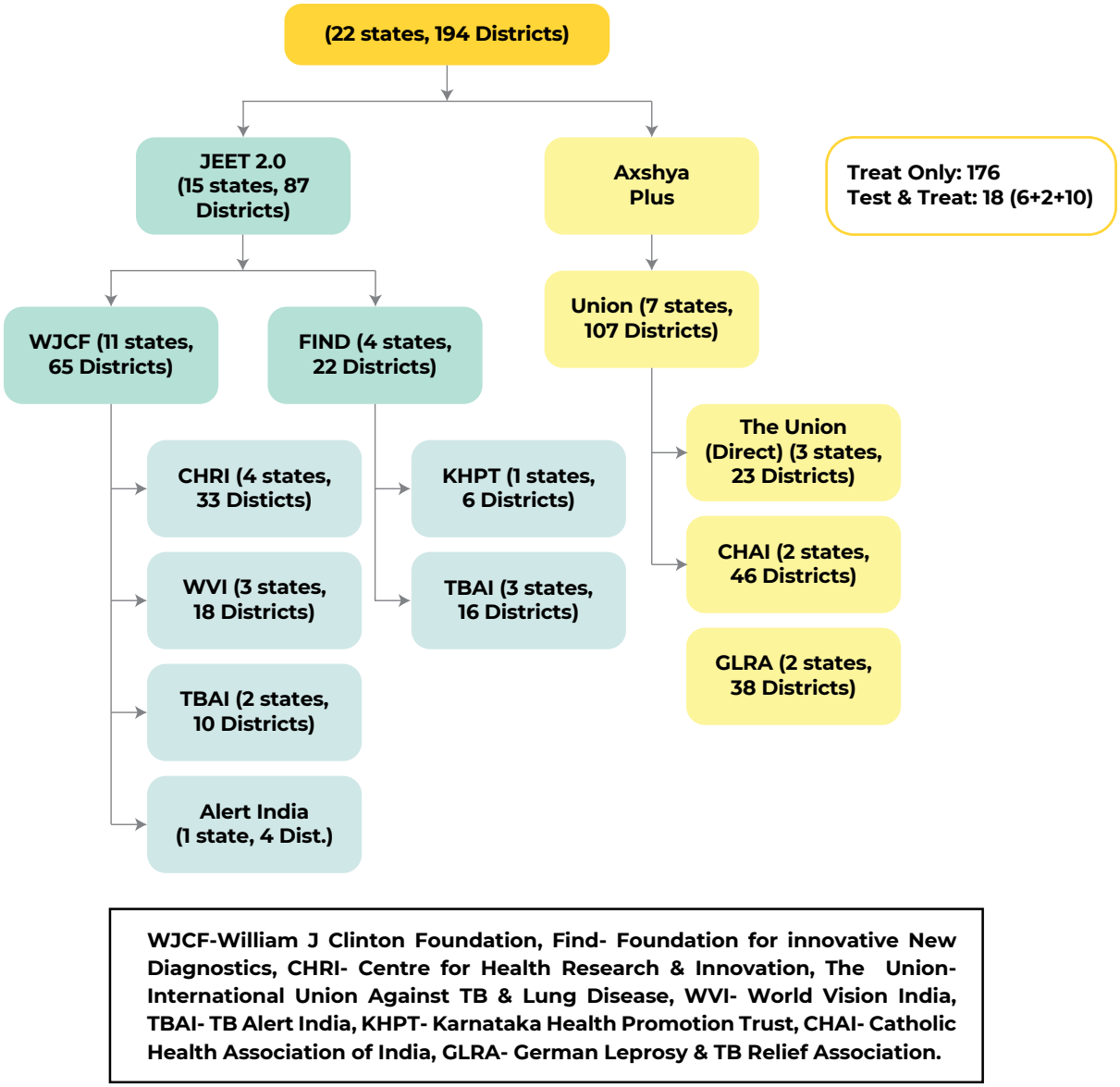


Figure 5.4: Hierarchy showing "The Global Fund Support TPT Model Projects"

These projects have created considerable impact in overall TPT coverage. Within the project geographies, between July 2021 to August 2022, more than 2.30 lakh pulmonary TB patients were visited, 8.43 lakh HHC were screened for TB and >4.3 lakh eligible HHC were provided TPT.

◄ Key initiatives for TPT service delivery from national level in 2022

The Physical training at National TB Institute (NTI), Bengaluru: Two physical training batches of master trainers from states and districts were conducted at NTI, Bengaluru.

Self-learning module for PMTPT over WHO's Swasth e-gurukul learning platform: >2500 participants enrolled for PMTPT self-learning training course.

Frequently asked questions (FAQ) for PMTPT guidelines published: CTD consolidated all the questions asked by the participants during national training and field implementation and prepared answers for them. The document can be accessible from: https://tbcindia.gov.in/showfile.php?lid=3665

Shorter 3 months weekly regimen with rifapentine and isoniazid (3HP) TPT regimen introduction: CTD received supply of around 45,000 TPT courses from WHO-India and the Global Fund projects. This supply of 3HP was introduced for programme implementation and operational research.

Shorter 3 months daily regimen with rifampicin and isoniazid (3RH) TPT regimen expanded in 5 States: Kerala state demonstrated the experience of implementing 3RH TPT regimen in eligible HHC aged 0-5 years and 5-15 years between November 2020 to August 2022. In this experience, 71% of the eligible HHC were initiated on 3RH with 97% completion rate and negligible adverse events. Based on this, CTD expanded the 3RH TPT regimen in the States of Punjab, Gujarat, Andhra Pradesh, Odisha and Madhya Pradesh as an alternate TPT regimen for eligible HHC <15 years of age in August 2022. The supply of paediatric dispersible formulations of 2FDC (HR) was made available for this expansion. Around 9,000 eligible HHC were put on shorter 3RH regimen from August 2022 to February 2023.

Strengthening of digital TPT care cascade monitoring through Ni-kshay: Contract tracing and TPT were recorded aggregately. In March 2022, integrated Ni-kshay TPT module was introduced. The new TPT module developed to capture life-cycle approach and functionality to record adherence, adverse events, drug dispensation etc. Recently on 12th January 2023, at the national review meeting in New Delhi, Ni-kshay TPT dashboard was introduced. The Ni-kshay TPT dashboard allows the programme managers and staff to monitor TPT care cascade in more granular manner up to the health and wellness centre (HWC) level and private health facilities registered in Ni-kshay. CTD has also organized capacity building on Ni-kshay TPT dashboard to sensitize the state and district teams.

Communication materials for TPT: It was a felt need under NTEP for making available standard communication materials targeting the community, doctors, health workers, etc. CTD with support from National Technical Support Unit for Advocacy Communication and Social Mobilization (NTSU-ACSM) developed communication collaterals – banner and hoarding targeting community, information book for health workers and flip books for medical officers.

◄ State innovations / model in TPT service delivery

Key Innovations	States
Roping in village health committee for TPT	Chhattisgarh
Advice of TPT to contact in the prescription of index patient from private doctor	Gujarat, Rajasthan
Decentralized TPT services through health & wellness centre	Haryana, Himachal Pradesh
State-wide establishment of testing for TB infection	Madhya Pradesh, DNH-DD, Haryana, Himachal Pradesh
TPT TUESDAY, CMO budget for IGRA lab, TPT SOP	Haryana
Introduction of TPT in prison inmates, other risk groups and integration during ACF	Jammu, Maharashtra, Rajasthan
Media and community campaign for awareness generation	Meghalaya
Training video for counselling by health staff	Rajasthan
Local procurement of shorter 3HP TPT drugs	Tamil Nadu

Table 5.1: Key innovations in TPT service delivery across States / UTs of India

◄ Incentives for TPT treatment supporters

The National Health Mission (NHM) considered the important role of treatment supporters in TPT adherence monitoring for all individuals put on TPT. An incentive to the treatment supporter of Rs. 250 per individual on successful treatment completion was introduced from the fourth quarter of 2022. CTD is in process of upgrading the Ni-kshay DBT module and inclusion of treatment support incentives for TPT.

◄ Programme priority for TPT in 2023-24

- ▼ Institution-based mapping of other risk groups for TPT by districts.
- ▼ Integration of TPT and ACF risk groups and updating of the national guidelines on both interventions.
- ▼ Scale-up of 3HP shorter TPT regimen and introduction of newer skin test for detection of TB infection.
- ▼ Scaling up community engagement for TPT.
- ▼ TPT adherence monitoring through digital technology.
- ▼ Mobilizing professional bodies, the national task force for medical colleges and technical support unit's workforce for private sector engagement to promote implementation of TPT guidelines across all sectors.

Airborne infection control in health care and other settings:

As an implementation strategy, CTD has prioritized high-risk centres such as drug resistance TB centres, ART centres, culture & drug susceptibility testing laboratories, TB microscopy centres, NAAT sites. These high-risk sites should be AIC compliant with a functional AIC committee, baseline assessment, resource planning and budgetary provisions, training of health care workers, implementation of administrative, environmental and personal protective measures.

CTD with the support of FIND and in collaboration with WHO-India, CDC and NITRD-Delhi is implementing AIC risks assessments and interventions at selected 100 nodal DR-TB centres under the Global Fund (C19RM grant) project. The intervention includes an independent AIC assessment of the DR-TB Centre, a plan for the upgradation and training of healthcare workers for promoting and implementing AIC measures. Assessment has been completed for 63 nodal DR-TB centres.

TB Mukt Bharat infection prevention and control (IPC) project is implemented by CTD, U.S Centres for Disease Control and Prevention (CDC)- India, and Society for Health Allied Research & Education India (SHARE INDIA at 60 healthcare facilities in 10 states with objectives to train and mentor the state nodal officers and health facility staff to implement and sustain IPC activities in their health facility. The project conducted baseline assessment of 31 health facilities and trained 263 health staff on infection prevention and control.

06

TB Comorbidities and Special Situations

Chapter 6

TB Comorbidities and Special Situations

The TB epidemic is strongly influenced by social and economic development and health-related risk factors. Key health-related risk factors for TB include, diabetes, HIV infection, alcohol use disorders, tobacco smoking and undernutrition. In addition, access to clean fuels, level of income inequality, poverty, social protection and living in informal settlements are broader socioeconomic determinants for TB. Thus, achieving targets for reductions in TB disease burden requires progress in addressing health-related risk factors and socioeconomic determinants.

The estimated number of cases of TB in India attributable to these comorbidities are mentioned in the table below.

Table 6.1: India estimates of TB cases attributable to selected comorbidities, 2021 (WHO Global TB Report, 2022).

Risk Factors	Estimates of Number of Cases attributable to risk factors (95% Confidence Interval) (Lakh)
Undernourishment	7.38 L (6.24 L – 8.61 L)
Alcohol Use Disorders	2.57 L (0.74 L – 5.53 L)
Smoking	1.09 L (0.21 L – 2.71 L)
Diabetes	1.05 L (0.31 L – 2.23 L)
HIV Infection	0.93 L (0.29 L – 1.93 L)

The NATBPS also reported that the prevalence of TB was higher among those survey participants having Body Mass Index (BMI) < 18.5 kg/m^2, diabetes, alcohol consumption and tobacco smoking.

The NTEP collaborates with different public health programs to design and implement interventions to address important comorbidities for TB. These interventions include joint training of staff, co-location of diagnostic/treatment services, bi-directional screening, cross-referral of presumptive and confirmed cases and prevention of TB through treatment for TB infection and Airborne Infection Control measures at Health Facilities.

6.1. TB-Nutrition

◄ Background:

TB and undernutrition have a bidirectional relationship. The vicious cycle between undernutrition and TB persists, being significant drivers of the burden of both diseases in India. While under nutrition is an established risk factor for the progression of TB infection to active TB (six to ten times), active TB by itself could lead to weight loss, wasting and worsening of nutritional status, and increases the risk of severe disease, death, drug toxicity, drug mal-absorption and relapse. Evidence has shown that for each unit reduction in BMI, the risk of TB increases by about 14%. Similarly, compared to individuals with normal body weight, the risk of relapse is four times higher for each unit reduction in BMI.

In addition, for children, pregnant and lactating women, the physiological requirement for nutrition is high, further aggravating the risk of TB disease if the demand for increased nutrition is not met. Adequate nutrition also helps in treatment adherence and an overall reduction in mortality. Hence, assessment and management of nutritional status are critical for TB treatment and care.

With the support of various partners, the CTD has developed a mobile-based application, the Nutrition-TB App (N-TB app), that explains nutritional assessment, counselling and support and provides guidance on appropriate supplementation for undernourished adult patients with tuberculosis. The app is available freely from the Google and iOS app stores.

The Community-Based Events (CBEs) organised under POSHAN Abhiyaan (The National Nutrition Mission) focuses on raising public awareness about prevention and on TB related health and socioeconomic consequences in order to combat the stigma due to TB.

◄ Progress:

A. Ni-kshay Poshan Yojna (NPY):

The Government of India is committed to supporting the nutritional requirements for the duration of treatment for all TB patients. Ni-kshay Poshan Yojna's (NPY) direct benefit transfer (DBT) of INR 500/ month to beneficiaries enables targeted delivery of benefits directly to citizens' bank account(s), thus enhancing efficiency, the effectiveness of treatment services and, ultimately, treatment outcome in terms of morbidity and mortality.

B. Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA):

In addition to the NTEP's provision of free diagnostics, free drugs and NPY benefits to all TB patients notified from both public and private sectors, The Government of India has launched "The Pradhan Mantri TB Mukt Bharat Abhiyaan" envisioned to bring together all community stakeholders to support those on TB treatment and accelerate the country's progress towards TB elimination. By augmenting community involvement and leveraging Corporate Social Responsibility (CSR) in meeting India's commitment to end TB by 2025, the Abhiyaan aims to provide additional patient support to improve the treatment outcomes of TB patients. It will be discussed in detail under the chapter on PMTBMBA.

6.2 TB and Alcohol Use Disorder

Alcohol use disorder is an important risk factor for TB.

In 2022, 74% of notified TB patients were screened for alcohol consumption and alcohol use was reported in 7.2% of the patients. Services provided to TB patients who use alcohol include (a) counselling, (b) linkages to de-addiction centres, and (c) social support systems.

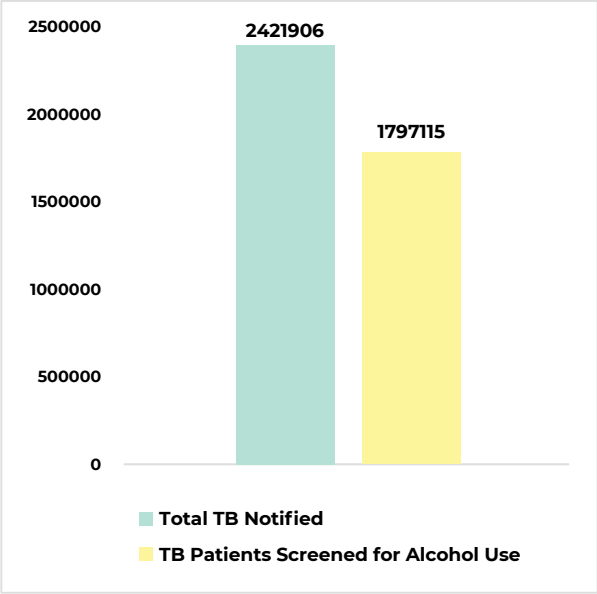


Figure 6.1(a): Screening of TB Patients for alcohol use

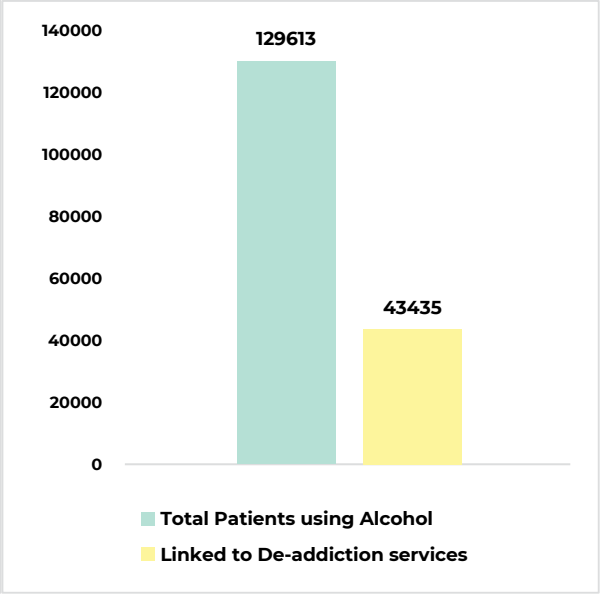


Figure 6.1(b): Linkage of TB patients using alcohol with de-addiction services

6.3 TB and Tobacco

Tobacco use increases the risk of infection from any airborne disease due to poor ciliary function, the compromised response of macrophages and decreased CD4 count. Tobacco use in terms of active smoking has been associated with a higher risk of getting infected with TB; progression from infection to active TB disease, increased risk of recurrence and death from TB.

Smoking cessation effectively improves treatment outcomes. NTEP and National Tobacco Control Programme (NTCP) have developed a joint action plan, for managing the dual problem of TB and smoking.

Under the NTCP, the tobacco cessation services are being provided to all persons affected with TB across all States/UTs. The collaboration between the two programmes is being strengthened through regular review in the TB Comorbidity Committee meetings at various levels.

In 2022, around 2,10,543 persons affected with TB were identified as Tobacco users and 67,157 were linked to Tobacco cessation services.

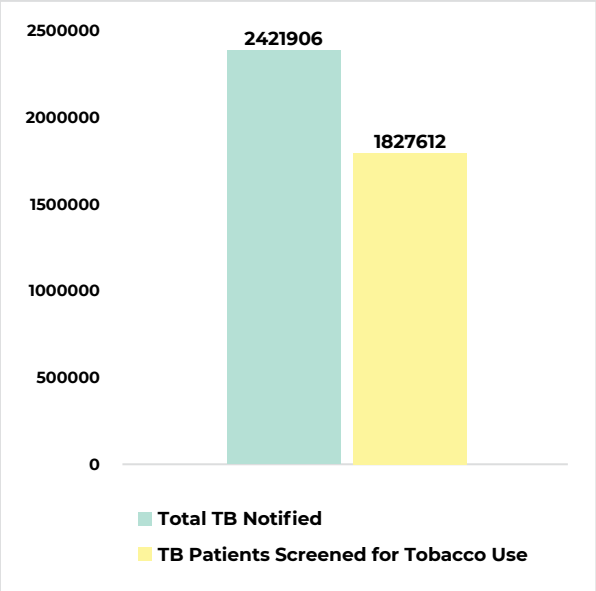


Figure 6.2(a): Screening of TB patients for tobacco use

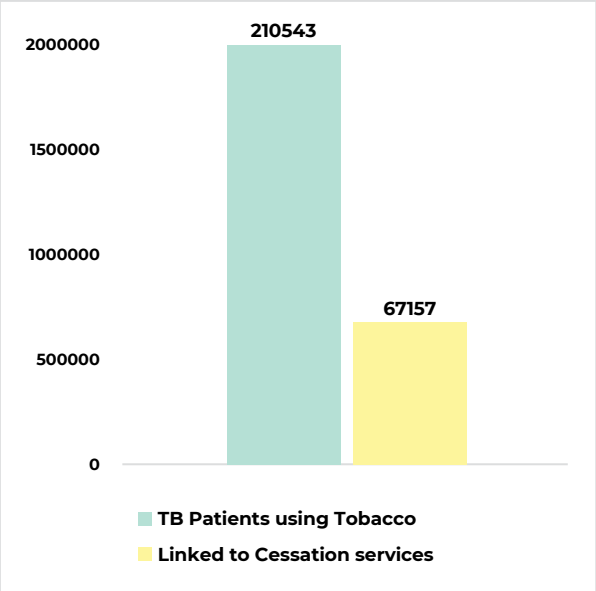


Figure 6.2(b): Linkage of TB patients using tobacco with tobacco cessation services

6.4 TB and Diabetes

Diabetes increases the risk of TB disease by 2-3 times. People with TB and diabetes are more likely to have poor TB treatment outcomes, including delayed microbiological conversion, death and treatment failure and have a 4-fold risk of relapse after treatment completion.

Since the implementation of the National framework for Joint TB-Diabetes Collaborative Activities in 2017, activities for addressing the joint burden of TB and Diabetes have been scaled up. Diabetes (DM) screening facility is available in nearly 93% of TB Detection Centres across the country. In 2022, 91% of notified TB patients (including patients seeking care in the private sector) were screened for DM. 7.8% TB patients were diagnosed with DM and of those diagnosed with TB and DM 63% were initiated on Anti-diabetic treatment.

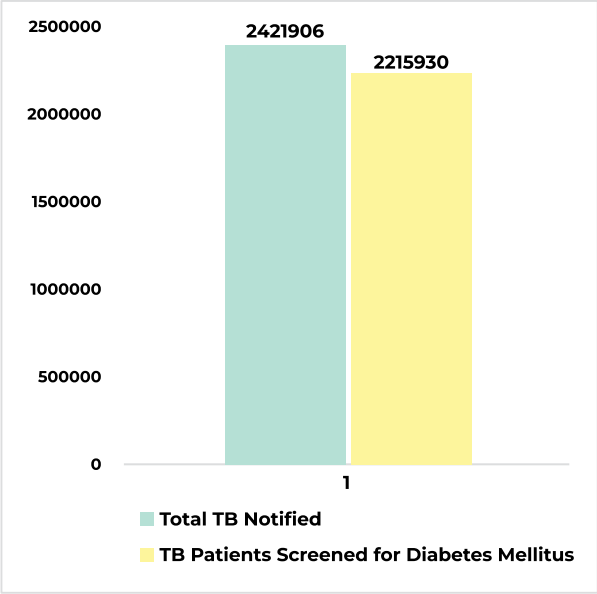


Figure 6.3(a): Screening of TB patients for DM

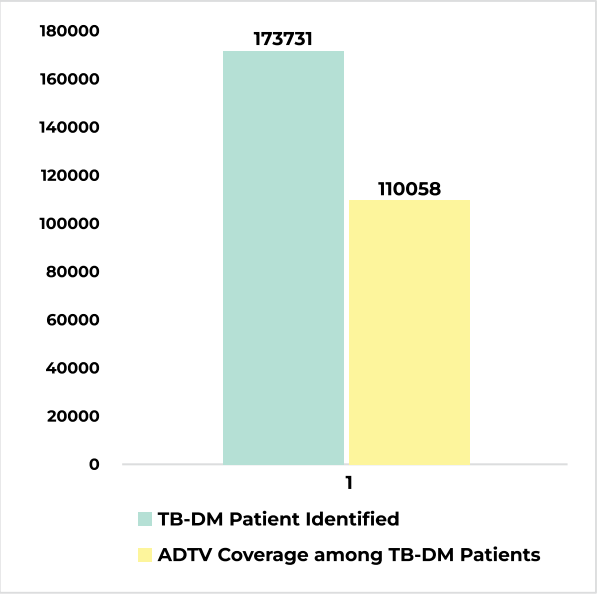


Figure 6.3(b): Anti-diabetes treatment coverage among TB patients having DM (b)

6.5 TB and HIV

People living with HIV (PLHIV) are 18 (15-21) times more likely to develop TB disease than people without HIV. TB is a leading cause of hospitalisation and death among adults and children living with HIV, accounting for one in five HIV-related deaths globally.

	India	Global
HIV Positive TB Incidence*	54k (46k-63k)	703k (633k-776k)
HIV Positive TB mortality*	11k (9.9k-13k)	187k (158k-218k)
HIV Positive TB patients on ART	32k (93%)	326k (89%)

Table 6.2: Estimates of TB HIV burden in India As per Global TB Report, 2022 India

The prevention, diagnosis and treatment of TB and HIV-associated TB are key elements of the internationally endorsed comprehensive package of services given under a single window delivery mechanism at the health facility level.

◄ Status of TB/HIV Collaborative Activities:

The National framework adopted a four-pronged strategy: Early detection of TB/HIV with the use of molecular diagnostics, prompt treatment of TB/HIV with FDC along with test and treat policy for PLHIV, management of TB/HIV cases in special situations & preventive efforts through infection control measures and Isoniazid Preventive Therapy.

A. ICF Activities

◄ At HIV Counselling and testing services (HCTS) facilities -

For early detection of HIV among presumptive TB patients and TB patients, Provider Initiated Testing and Counselling (PITC) is being implemented across the country. Nearly 95% of TB Detection Centres (TDCs) have co-located HIV testing facilities. Of all the notified TB patients, 96% know their HIV status. (Public: 97%, Private: 94%)

◄ At ART Centres-

Single window TB and HIV services are being implemented through existing ART centres. TB screening among ART centre attendees is done using '4 symptoms screening tool'. Based on the evaluation, ART medical officers offer PLHIV TB treatment or TB preventive therapy. In 2022, 97% of the PLHIV visiting the ART centres every month were screened for existing TB symptoms.

◄ At Targeted Intervention (TI) sites -

TB services are also provided as a referral service to the most vulnerable populations, which include Female Sex Workers (FSW), Men having Sex with Men (MSM), Transgender (TG/TS), Eunuchs, People who inject drugs (PWID) and Bridge Populations such as migrants and truckers as part of harm reduction services. Screening is done for all HRGs (FSW, MSM, TG/TS) and also for the truckers and migrants regularly as per the scheduled follow-up visits along with the regular medical check-up.

◄ At Prisons and other closed settings including juvenile homes -

Inmates of all prison settings and other closed settings, including juvenile homes, are subjected to 4-Symptoms TB screening and are referred for testing & linked to treatment as per the programme guidelines. The NACP and NTEP programme follow the patients for treatment adherence post-release by the district-level field staff.

B. TB Preventive Treatment (TPT):

TPT is given to all eligible PLHIV after ruling out TB. More than 95% of PLHIV in active care have been provided with TPT till Mar 2022 through a single window delivery mechanism at the ART centres. In the year 2022, more than 2 lakh PLHIV on active care have been given INH preventive treatment at the ART centres.

C. Airborne Infection Control

Airborne Infection Control (AIC) activities are inbuilt within the health system infection control settings and are being monitored by the Hospital Infection Control Committee (HICC) at the institutional/ facility level as applicable. Moreover, Care Cascade Monitoring is being done under the programme for the TB HIV coinfected as well as those who are on TPT.

◄ Status of implementation:

- Single window delivery of TB and HIV services are being provided to all PLHIV at the ART centre.
- Screening at ART centres- 97% of PLHIV visiting the ART centres every month undergo 4-Symptom TB screening.
- More than 4 lakh PLHIV have been offered rapid molecular testing via NAAT for TB diagnosis in 2022
- As per NACP, the total no. of TB HIV -co-infected patients in 2022 are 37,578. The management of these cases is being jointly monitored by the NTEP and NACP field staff.
- The linkage of HIV-TB co-infected patients to Cotrimoxazole Preventive Therapy (CPT) and Antiretroviral Therapy in 2022 was 96% & 95%, respectively (source: NACP).
- The TB treatment success rate for TB-HIV co-infected cases is 75% (2021 diagnostic cohort).
- TB screening in prisons have been undertaken in 1262 prisons by the NACP in the year 2022, 74% of the prison inmates (84,619 out of 11,33,483) have been screened for TB and 81% of the diagnosed TB cases (980 out of 1209) have been put on treatment.

Program priorities for 2023 are to strengthen existing intensified case-finding efforts at ICTC, ART, TI sites, NCD clinics, Tobacco cessation sites, prisons and other key populations at risk, monitor various care cascades, build the capacity of the various stakeholders from NACP, NPCDCS, NTCP and NTEP, decentralisation of the diagnostic, treatment and monitoring services with the health system approach. The programme also envisages implementing a shorter regimen for TPT in priority populations such as diabetics, people using tobacco, people having silicosis etc.

6.6 Childhood Tuberculosis

Children are more vulnerable to acquiring TB infection and developing the disease than adults, resulting in high morbidity and mortality. TB in children has a similar preponderance in girls and boys, especially younger children. Globally, in 2021, children between 0-14 years of age constituted about 10.9% of the total estimated incident TB cases (WHO Global TB Report, 2022). The same age group contributed 14% to the total HIV-negative TB deaths. Infants and young children are at higher risk of developing life-threatening forms of TB disease (e.g., disseminated TB, TB meningitis) than older children and adults. TB is now the leading cause of death from infectious diseases for children of all ages globally.

Regarding the site of the disease, although pulmonary TB is the most common form in children, the proportion of Extrapulmonary tuberculosis (EPTB) was found to be between 28-32% consistently. Nevertheless, diagnosis of TB among children is comparatively more challenging, and hence many cases are missed, diagnostic delays are frequent, leading to poor treatment outcomes.

◄ Paediatric Drug-Resistant Tuberculosis:

Although Drug-resistant TB persists as a significant public health threat for all age groups (adults and children), the burden of MDR-TB/RR-TB remains stable globally. In addition, DR-TB for the paediatric age group remains challenging globally and nationally. Evidence shows that the key reason for drug-resistant TB in children in India is mainly due to close contact with a confirmed MDR-TB patient (usually an adult or adolescent) , rather than previously inadequate TB treatment.

As per the modelling estimates, out of 25,000-32,000 children who develop MDR-TB globally, fewer than 5% are diagnosed and receive treatment every year. At the UN High-level Meeting (UN HLM) on TB, members agreed to a cumulative target of treating 1,15,000 MDR/RR paediatric. TB cases between between 2018 and 2022. Against this, only 17,700 children with MDR/RR-TB have been treated till 2021 (Global TB Report, 2022).

◄ Paediatric TB Notification:

Although the years (2020 and 2021) of the COVID-19 pandemic saw a significant decline in the notification of newly diagnosed TB due to far-reaching repercussions on diagnostic and treatment services for TB, in 2022, 1,35,921 TB case notifications in the 0-14 years age group were done in India. The total number of pulmonary TB cases notified in this age group was 68,872 and extrapulmonary TB was 61,869.

Private Sector Engagement:

The Memorandum of Understanding (MoU) between the NTEP and the Indian Academy of Paediatricians (IAP) was signed with the objective of building capacity among the paediatricians and the NTEP Medical Officers, in both public and private sectors, for strengthening the diagnosis, notification, treatment and provision of public health actions for the management of paediatric TB. According to this MoU, the IAP was to train 18,000 paediatricians and 2,000 NTEP Medical Officers in the programme guidelines relevant to paediatric TB through 300 district-level Continuing Medical Education (CMEs). Despite the disruptions caused by the COVID-19 pandemic, the IAP has conducted 141 workshops in its branches and trained more than 9100 doctors.

◄ Management of Paediatric TB under the NTEP:

To address the common diagnostic challenges and improve diagnosis of Paediatric TB, including DR-TB, especially in young children, the NTEP-mandated upfront rapid molecular diagnostics in all cases of presumptive Paediatric TB has been implemented across the country.

The programme has introduced Fixed Drug Combinations (FDCs) drug formulations according to weight band for treatment of DS-TB to simplify treatment and avoid errors in missing one or more of the combination drugs, thereby reducing the risk of the emergence of drug-resistant strains. For treatment of DR-TB in children, shorter and longer oral regimens are available.

To provide TB preventive treatment, contact tracing of TB cases and diagnosis of TB infection among vulnerable populations are essential activities for reducing the risk of TB infection progressing to active TB disease. All household contacts of active TB cases, including children of all ages, are offered TB prevention services as per the PMTPT Guidelines in India. More details can be found in the chapter on TB Prevention.

◄ Coordination with other National Programmes under the NHM:

To improve community awareness of childhood TB, promote disease prevention, and early detection of children with TB symptoms, TB screening in the paediatric population is ongoing through the collaborative framework of NTEP with the Rashtriya Bal Swasthya Karyakram (RBSK) and Rashtriya Kishor Swasthya Karyakram (RKSK).

Comprehensive technical guidance on facility and community - based management of children with Severe Acute Malnutrition and TB has been drafted for incorporation into the Guidelines for Facility-based management of Severe Acute Malnutrition in children to be released by the Children Health Division of RMNCH+A programme. This will strengthen intensified TB case finding and management through provider-initiated pathway within Nutrition Rehabilitation Centres (NRCs).

◄ Paediatric Centre of Excellence:

To serve as model centres for paediatric TB care, support and treatment, the process of streamlining and implementing the objectives of two national and five regional paediatric Centres of Excellence (pCoE-TB) is ongoing. The signing of a formal "Statement of Understanding" between the CTD, Institutes designated as pCoE for Paediatric TB and State TB officials, formation of a committee of clinical experts at each pCoE for providing clinical guidance to linked states, including through Difficult to Treat Paediatric TB clinics will be taken forward this year. In addition, the preparation of an Activity Calendar (including training, Difficult to Treat Clinics, workshops, CMEs etc.) and identification of Master Trainers at all pCoEs is also planned.

6.7. TB and Gender

TB affects people of all genders and all age groups. As per the National Prevalence Survey, the TB incidence among men is comparatively more than women.

However, gender and sexual identity in themselves and their interaction with other social identities construct systems of privilege and oppression and, in turn, are critical social determinants of health. The entrenched gender roles and the power differential between and among heterosexual persons, women and sexual minorities influence their access to employment, education opportunities, financial resources, and decision-making power. Despite the overwhelming incidence of TB in men, women and Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual and Other Identities (LGBTQIA++) experience TB differently. Evidence shows that LGBTQIA++ persons experience discrimination and stigma in education, employment, housing opportunities and healthcare settings. These factors, in turn, interact and determine exposure, risks, vulnerability to TB, and health-seeking behaviour. Gendered vulnerabilities for women range from a perceived need to hide symptoms or possible illness due to stigma, prioritising household and caretaking responsibilities, constrained decision-making power, lack of mobility, and limited autonomy over financial resources.

In 2022, out of the total TB cases notified, 14,71,190 (61%) were male, 9,48,190 (39%) were female and 1,023 (<1%) belonged to LQBTQIA++.

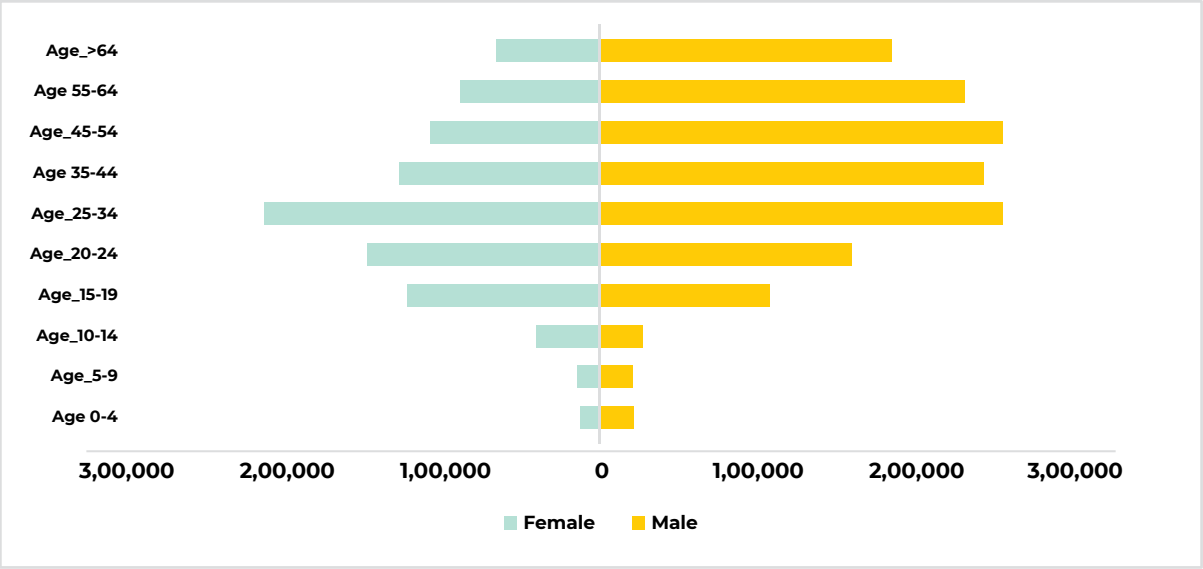


Figure 6.4: Age-sex distribution in TB case notifications (2022)

The National Framework for Gender-Responsive approach to TB in India endeavours to make TB care gender-responsive to the needs of persons of all genders and sexual orientations by illustrating how sex, gender identity, and sexual orientation interact as social determinants for TB and, in turn, mediate health-seeking behaviour and access to healthcare.

By adopting a gender-responsive and queer-affirmative programmatic approach at all levels, the framework aims to tackle discrimination and systemic stigma towards all gender and sexual identities but not limited to cis men, cis women, and LGBTQIA++ persons. Additionally, based on the recommendations from organisations, associations, and LGBTQIA++ communities' collective, the framework has incorporated suggestions and inputs to broaden the scope of inclusivity of the framework encompassing gender identities and sexual identities, including but not limited to cis men, cis women, and LGBTQIA++ persons.

After the identification of Subject-matter experts across the country and the national-level Training of Trainers of facilitators, five batches of regional-level workshops have been conducted. The modular nature of the training, incorporating newer learning and evidence, and focusing on the role of stigma in TB underdiagnosis is complementary to the National Framework. The training sessions are based on the core values central to the TB response, including respect for all, informed consent, confidentiality, accountability, access for all and non-discriminatory behaviour.

The primary objective of the training was to enable the participants to develop gender-responsive and queer-affirmative analysis and programming skills and, in turn, identify principal gender-responsive and queer-affirmative interventions along the Detect-Treat-Prevent-Build continuum. The training session also ensured the development and assessment of state action plans based on the fundamental principles of the training.

6.8. TB and Pregnancy

◄ Background:

As outlined in the previous section, although the burden of TB is higher in men in India, women, particularly in the reproductive age group (15-49 years), during which many changes happen in a woman's body, may experience the disease differently. Moreover, diagnosing TB disease in pregnant women becomes challenging due to common non-specific symptoms in both TB and Pregnancy.

The risk of perinatal death becomes as high as six times, while the risk of premature birth and low birth weight in mothers with active TB disease is twice as high. Implications of TB in pregnancy vary significantly, both short and long-term, and may result in successive effects, such as repeated reproductive failure, fetal ill-health, preterm delivery, and TB of new-borns and infants. These complications, in turn, could lead to high maternal and perinatal morbidity and mortality.

◄ Progress:

As per the NSP, pregnant women are one of the key populations in terms of their vulnerability to TB and considerable risk of morbidity. Accordingly, to reduce morbidity and mortality due to TB in pregnant women and new-borns, the Collaborative Framework for Management of TB in Pregnant Women between NTEP, and the Maternal Health Division, which was released, provides guidance and outlines activities for the management of TB in Pregnant Women.

With the aim of early diagnosis and initiation of treatment, raising TB awareness and building the capacity of the healthcare system to strengthen referral and linkages, both the programmes have integrated screening for TB within existing services of the maternal health programme with a focus on screening pregnant women for TB during antenatal care (ANC) sessions, establishing linkages for further diagnosis, treatment and follow up. This has improved case finding among pregnant women to achieve optimum maternal and perinatal outcomes.

07


HIV/AIDS: A Global
Grand Challenge
Barriers
Considerable genetic variability of HIV
The lack of animal model
Lack of correlates of immunity
Short window of opportunity for immune intervention
Priorities
Network of collaborators
Improve upon efficacy observed in the RV-144 trial
Advance 2nd generation vaccines with appropriate TPP
HIV vaccine R&D to remain priority for international health and development and national research agendas
New model for manufacturing and delivery

Supervision and Monitoring

Chapter 07

Supervision and Monitoring

Supervision is a systematic process for increasing efficiency of the health personnel by enhancing their knowledge, skills, including soft skills for efficiently managing their tasks. Supervision is carried out in direct contact with the health personnel. It is a two-way communication between supervisors and those being supervised. The NTEP emphasises its roles of supportive supervision and effective monitoring and evaluation of activities as a learning exercise.

Monitoring is a continuous process of collecting and analysing information to compare on how well a project or a programme is performing against an expected result. Monitoring is a daily follow-up of activities to identify deviations and provide solutions/actions to bring back to correct course.

Ni-kshay: The most important part in the monitoring of the health services delivery is the collection and collation of patient wise data, which under NTEP is done through "Ni-kshay". It is a case-based web based real time patient management system which offers the programme managers the ability to monitor patients real time through reports, registers and dashboards. It captures all the components of service delivery from curative to preventive services. The details of the same with the updates in Ni-kshay will be explained in the Chapter on "Ni-kshay and Surveillance".

As part of Supervision, Monitoring and Evaluation, the following activities are being conducted by the programme.

- Joint Supportive Supervisory Mission to the States/UTs.
- Review meetings – Both at the National level & Regional levels.
- Zonal Task Force Meetings.
- Regular programmatic performance review of the State programme managers by the Officials of the MoHFW [AS & MD-NHM, JS (NTEP), DDG-TB].
- Special Central team visits to provide supportive supervision and technical assistance in implementing special interventions.
- NRL and IRL visits and review by CTD officials.

National NTEP Review for the period Jan-Dec 2022:

A two-day national NTEP review of the STOs under the chairpersonship of AS&MD was conducted on 12 & 13 January 2023 to assess the progress made so far and accordingly prepare for 2025. The participants included Mission Directors of NHM from the states, State TB Officers, STDC Directors, representatives from State/UTs and WHO Consultants.

During the meeting, the following new analytics tools to support in the planning and monitoring of the programme were launched:

- "Ni-kshay TPT Dashboard" was launched by AS & MD, MOHFW.
- Orientation on "TB modelling Dashboard" - which uses mathematical modelling to estimate and project the burden of TB as an aid to the State/UTs in understanding the disease dynamics in respective geographies was conducted with a hands-on demo for the State of Andhra Pradesh.

Figure 7.1: National - NTEP Review of the States and UTs by AS&MD, on 12-13 January 2023. On the Dias, along with AS&MD NHM, JS(NTEP), MD-NHMs from various States/UTs and DDG-TB are present

National - NTEP Review of the States and UTs by AS & MD, MD on January 12 & 13, 2023. On the Dias: JS (TB), MD-NHMs from various States/UTs and DDG-TB.

The key actions points suggested to the States/UTs for appropriate action for gearing up to 2025 were as follows:

- Strengthening the cascade of care of TB Preventive Therapy, across the country.
- Development and implementation of models of "Sample collection and transportation system"
- Ensuring the entry of all "Presumptive TB testing" across the health facilities in Ni-kshay, irrespective of methodology of testing.
- Development and implementation of systems to reduce TB mortality - through differentiated care approach, TB death audit with lessons from few State/UTs already implementing the same.
- Strengthening the engagement with the private sector with emphasis on "Quality of TB Care services" being provided to patients and families.
- Expanding models of patient support systems being developed and implemented across the geographies under "Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)".

Monitoring indicators under the programme:

The programme is continuously being monitored at the block, District, State/ UT, and National level by the respective programme managers, with the aid of the reports and dashboards generated in the Ni-kshay database. The NTEP is part of all the important health review meetings held under the chairpersonship of Elected representatives, Principal Secretary (Health), Mission Directors and District Magistrates/ Collectors. The CTD also releases quarterly, and bi-annual rankings of the states and districts based on the TB Score. This aids the states to identify the l challenges and expedite their resolution. Ni-kshay Dashboard plays an important role in real-time monitoring of programme performance.

TB SCORE

For continuous monitoring of the programmatic performance at all levels, a composite score is calculated from a selected list of key performance indicators from various thematic areas under NTEP. Appropriate weightage has been given to each of these indicators and individual States/UTs are scored for performance against every indicator. The individual indicators sum up to a total of 100.

The TB index helps in objectively measuring the performance of the state and identifying gaps/challenges for resolution that are necessary for promoting a healthy competition towards ending TB.

The TB Index currently in usage consists of 9 indicators:

S. No	Parameter	Indicator	Score Allotted
1	Achievement of TB notification among the targets identified.	% of Target TB notification achieved (Source: Ni-kshay)	20
2	HIV testing/ screening of TB notified patients.	% of net TB notified patients with known HIV status (Source: Ni-kshay)	10
3	UDST coverage among the TB notified patients.	% of net TB notified patients with UDST done (Source: Ni-kshay)	10
4	Treatment Success Rate of TB notified patients.	Treatment Success Rate for net TB patients (Source: Ni-kshay)	15
5	Ni-kshay Poshan Yojana implementation.	% of Eligible beneficiaries paid at least once under Ni-kshay Poshan Yojana (Source: Ni-kshay)	10
6	DRTB treatment initiation among the diagnosed patients.	% of MDR/ RR patients initiated on treatment out of net diagnosed (Source: PMDT Quarterly Reports)	15
7	Utilisation of the allotted budget.	% of expenditure amongst ROP (Source: PFMS)	10

8	Latent TB infection management	• % of children <5/<6 years given chemoprophylaxis against the total eligible children identified (Source: Ni-kshay)	5
		• % of PLHIV given IPT against total eligible PLHIV (Source: NACP)	5

Table 7.1: TB Index currently in usage

Feedback mechanisms and field engagement plans:

- The TB scores for the States/UTs as well as the districts are calculated by the CTD quarterly. The quarterly scores are updated on the Ni-kshay portal and utilised for performance review.
- TB score helps the CTD to identify indicators of concern for a particular state or district and accordingly guidance is provided in terms of technical assistance as well as advocacy. DO letters are sent from CTD at regular intervals to key state-level officials .
- In many parts of the country, the TB score is customised and utilised for the review of the programme performance at the TB Unit level.
- States as well as districts are encouraged to perform Internal Evaluation activities selecting districts as well as blocks with low TB scores.

Table 7.2: State TB-score for 2022 (Top-5, States with population <50 lakhs/>50 lakhs and Uts)

RANK (As per TB score)	STATES WITH POPULATION <50 LAKHS	STATES WITH POPULATION >50 LAKHS	UNION TERRITORIES
1	Sikkim	Himachal Pradesh	Ladakh
2	Tripura	Odisha	Andaman and Nicobar Islands
3	Goa	Telangana	Dadra & Nagar Haveli and Daman & Diu
4	Nagaland	Jammu & Kashmir	Lakshadweep
5	Mizoram	Kerala	Puducherry

Evaluation

Evaluation forms an integral part of NTEP's supervision and monitoring strategy. Evaluation of the programme activities is conducted at all levels by the CTD (Joint Supportive Supervision Mission), State TB Office (State Internal Evaluations), Common Review Mission (CRM) of the National Health Mission as well as through the mechanism of Joint Monitoring Mission (JMM). It acts as a tool for the programme managers to

evaluate if there are any good practices that are being followed and assess the quality of services being provided to patients and community. In 2022, the Central TB Division along with the partner organisations decided to conduct the Joint Supportive Supervision mission with the objective of assessing the quantitative and qualitative performance of the NTEP (planning, implementation and service delivery) at District and State/UT level and also support through advocacy in obtaining high-level politico-administrative commitment.

◄ Joint Supportive Supervision Mission (JSSM) 2022:

The Covid-19 pandemic has affected most of the field level supervision exercises over the past two years (2020 and 2021). To identify the technical and administrative challenges faced by the States/UTs as well as hand hold them, a nation-wide Joint Supportive Supervision Mission (JSSM) was planned across all State/UTs. Two districts (one each with high and low TB Index scores) were selected from each State/UT. A standard supervision checklist was provided to the teams and the teams visited various health facilities, discussed on persisting challenges with different stakeholders associated with TB and general health system in the given district as well as interacted with a selected sample of TB patients. The team provided extensive feedback and recommendations to the state officials for necessary corrective actions. In total, 12 teams were constituted whose members included Joint Secretary (TB), DDG-TB, Senior officers from Central TB Division, heads as well as consultants from development partners and other partner organisations. Overall the supportive supervision visits to 27 States/UTs were conducted and recommendations addressing the vital gaps within both the NTEP and overall health system were given.

Way Forward

- ◄ Joint Supportive Supervision Mission to be conducted as an ongoing activity on a regular basis as per gaps identified through systematic surveillance - in select States/UTs and Districts.
- ◄ Implementation of Regional Reviews of the programmatic performance on a regular and periodic basis.
- ◄ Data validation protocol and annual exercises for the following activities are being developed to strengthen the delivery and quality of services provided by the programme.
  - Data validation protocol for monitoring the quality of care and programmatic services provided to patients.
  - Revision of the TB Index - to be made more comprehensive and simultaneously addressing the SDG related goals/sub-indicators.
  - Costing exercise - to understand the efficiency and effectiveness of strategies being implemented under the programme.

08

Patient Support Systems

Chapter 08

Patient Support Systems

Introduction

The National Strategic Plan (NSP) 2017-2025 envisions a TB-free India with zero deaths, disease and poverty due to TB. There is a critical need for a patient-centric service delivery approach to address the social determinants such as undernutrition, poverty and social stigma that allow TB to persist & thrive and to achieve the goal of TB elimination by 2025. The NSP has articulated the need for "Patient Support Systems" to limit and eliminate out-of-pocket (OOP) expenditures during the treatment, support patient's nutritional needs through financial incentives and create linkages to other social welfare schemes.

The key components of patient support provided under the NTEP are:

a. Direct Benefit Transfer (DBT): is a major initiative of GoI whereby any government subsidy or benefit is to be transferred directly into the bank accounts of the beneficiary, while intermediary agencies or stakeholders only manage the process of payments. This enhances efficiency, effectiveness, transparency, and accountability for each transaction.

b. Call Centre Support: Support to the patient through a dedicated call centre for addressing queries and providing tele-counselling on treatment.

◄ a) Direct Benefit Transfer (DBT)

The following DBT schemes are currently functional under the NTEP:

- Ni-kshay Poshan Yojana (NPY): The Government of India launched the NPY scheme in April 2018, for providing financial incentives via DBT to all persons affected with TB in order to support their nutritional requirements during their treatment.
- Transport support for TB patients in notified tribal/hilly/difficult areas: Under this Scheme, one-time financial incentive of Rs 750 is provided to notified persons affected with TB residing in tribal/hilly/difficult areas.
- Honorarium for Treatment Supporters: Treatment Supporters are provided with an honorarium for supporting notified persons affected with TB who successfully complete their treatment.
- Notification & Treatment Outcome Incentive for Private Sector Providers including informants incentive: Private providers are also provided financial incentives for both notifying persons affected with TB as well as reporting treatment outcome. In addition, any person who refers a presumptive TB patient to a health facility in the public sector is eligible for an informant incentive, if that person is subsequently diagnosed as affected with TB.

Some details about these schemes are as under:

DBT Schemes	Beneficiary	Benefit Amount
Ni-kshay Poshan Yojana (NPY)	• Confirmed TB Patients • DSTB & DRTB • Public + Private Sector Patients	Rs 500 per month
Tribal/hilly/ difficult area Support Scheme	• Confirmed TB Patients residing in Tribal/Hilly/Difficult blocks	Rs 750 (one time)
Treatment supporter's Honorarium	• Treatment Supporter	• Rs 1,000 for DS TB patients • Rs 5,000 for DR TB patients
Incentive for Notification and Outcomes	Private Health Facilities: • Practitioner / Clinic etc. (Single) • Hospital/ Clinic/ Nursing Home etc. (Multi) • Laboratories Chemists • Any person as informants	• Rs 500 as Informant or Notification Incentive • Rs. 500 for Outcome declaration

Table 8.1: DBT schemes with beneficiaries and benefit amount

◄ New incentives for ASHAs or Community health volunteers

Mission Steering Group of NHM in its 7th meeting approved the following additional incentives for ASHAs or Community volunteers under NTEP:

- Incentives to ASHAs or Community Health Volunteers for facilitating bank account seeding for achieving 100% bank account linkage for persons affected with TB within 15 days of treatment initiation, incentives at the rate of Rs. 50/- per patient to ASHAs or community health volunteers
- Incentive to ASHAs or Community Health Volunteers for facilitating TPT completion: To include a TPT component in treatment supporter honorarium scheme, a financial incentive of Rs. 250 is provided to ASHAs or Community Health Volunteers for successful completion of TPT in a beneficiary for whom they are treatment supporters.

◄ Implementation Arrangements

To enable direct transfer of payments to the eligible beneficiaries, Ni-kshay has been integrated with the Public Financial Management System (PFMS). DBT payments can be processed to the eligible beneficiaries via Ni-kshay.

Scheme	Beneficiaries Paid in No's		Amount Paid (in lacs)	
	2018-2022	2022	2018-2022	2022
Ni-kshay Poshan Yojana	7096402	1601896	208976	39605
Transport support for TB patients in notified tribal areas	475298	130157	3754	992
Treatment Supporters' honorarium	236750	40553	9442	783
Incentives for Private Sector Providers and Informants	22753	14456	6897	1531

Table 8.2: Status of DBT schemes (as per Ni-kshay)

Novel Initiatives for monitoring and support:

◄ Informant module

The informant module was previously available only to private practitioners in Ni-kshay. Therefore, DBT payments to other beneficiaries were processed via PFMS directly. The informant module has been further expanded and a feature to provide informant incentives to general citizens has been made live in Ni-kshay.

◄ Monitoring and support provided to States/UTs

NTEP has strengthened and implemented its monitoring mechanism and conducted supervisory visits to 14 States with the support of partner organizations i.e. WHO, The Union, CHAI, NTSU and STSU. The visits are targeted to build capacity through hand holding and resolution of field queries related to DBT.

National TB Call Centre Support:

The National TB Call Centre - Ni-kshay SAMPARK (1800-11-6666) is managed by the Central TB Division and is operational 7 days in a week, from 7 am to 11 pm. The operations of the Call Centre commenced in May-2018 and is currently operating from two sites - Noida & Pune. It provides inbound and outbound call services in 14 languages for all States & UTs.

Role of the Ni-kshay SAMPARK:

1. Resolving queries related to TB for citizens, patients, public health providers and private health providers.

2. Resolving queries of citizens/patients related to Hepatitis under National Viral Hepatitis Control Programme (NVHCP).

3. Tele-counselling to persons affected with TB.

4. Satisfaction Survey of persons affected with TB on NTEP services.

5. TB grievance management: National TB Call Centre has launched a new online TB Grievance Management System (TB-GMS) pan India for improved transparency on TB grievances. TB-GMS provides real-time online visibility on the status of grievances and their pendency. It is used by the Call Centre-Grievance Team/District TB Officers (DTO)/ State TB Officers (STO)/Central TB Division (CTD).

6. IVRS (Interactive Voice Response System): National TB Call Centre has launched Origin Dependent Routing (ODR) IVRS. ODR IVRS provides facility to callers to choose to talk in their regional language along with options of Hindi and English languages, and thus provides better interaction experience for callers.

National TB Call Centre performance (Jan-22 to Dec-22):

Total Calls (TB) Jan-22 to Dec-22	
Inbound Calls (TB)	6.46 Lakhs
Outbound Calls (TB)	28.12 Lakhs
Total Calls (TB)	34.58 Lakhs

Table 8.3: National TB Call Centre performance (Jan–Dec 2022)

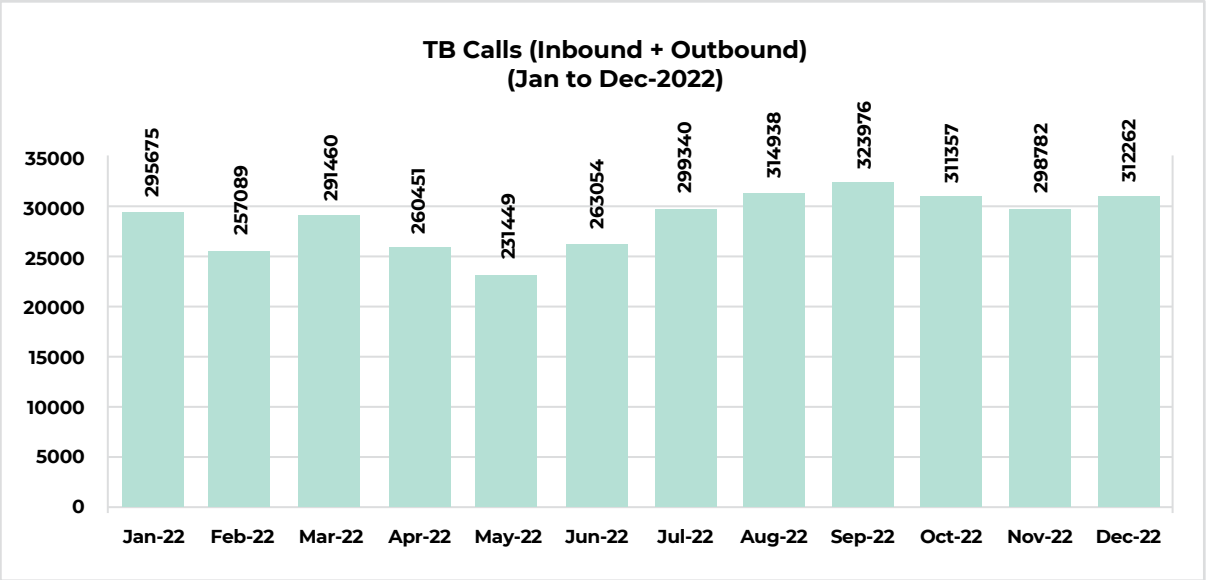


Figure 8.1: Count of TB calls managed by the National TB Call Centre

The National TB Call Centre is consistent in its efforts to support NTEP in achieving the goal of End TB.

09

Partnerships under National Tuberculosis Elimination Programme

Chapter 09

Partnerships under National Tuberculosis Elimination Programme

The National TB prevalence survey found that about 50% of the persons affected with TB seek care from the private sector. Hence, engaging the private sector forms one of the key strategies for ending TB. Through the years, the states have implemented context-specific need-based approaches for private sector engagement. With all the efforts taken in the year 2022, the private sector notification achieved was the highest ever, amounting to over 7 lacs. The implementation of the following approaches has been critical:

- **Patient Provider Support Agency (PPSA):** A PPSA acts as an interface between NTEP and private healthcare system to provide end-to-end TB services to the patients (including mapping and landscaping of private providers, notification, linkage with free diagnostics and treatment services, counselling and adherence, comorbidity screening, universal drug susceptibility testing, follow up, contact investigation, long term follow up). As per the RoP 2022-2024, PPSAs have been approved in 385 districts, out of which they are functional in 188 districts. The state-wise distribution is as follows:

SN	State	PPSA Approved	Functional PPSA	Implementing Agencies
1	Andhra Pradesh	10	10	Bhavya Health Services Private Limited
2	Assam	15	10	Doctors For You
3	Bihar	29	19	World Health Partner Doctors For You
4	Chhattisgarh	6	6	HLFPPT
5	Delhi	25	0	-
6	Goa	2	2	Disha Foundation
7	Gujarat	39	17	HLFPPT
8	Haryana	6	0	-
9	Jammu & Kashmir	2	0	-
10	Jharkhand	24	0	-
11	Madhya Pradesh	52	29	Deepak Foundation Divya Jyoti Social Development Centre
12	Maharashtra	80	35	HLFPPT, Disha Foundation Maharashtra Janvikas Kendra, Alert India, Doctors For You
13	Manipur	2	0	-
14	Meghalaya	2	0	-
15	Mizoram	1	1	Youth For Action
16	Odisha	7	7	HLFPPT, World Health Partners, IMTS
17	Punjab	5	2	World Health Partners
18	Tamil Nadu	5	0	-
19	Telangana	10	10	Bhavya Health Services Private Limited
20	Uttar Pradesh	36	36	HLFPPT, Doctors For You
21	Uttarakhand	4	0	-
22	West Bengal	23	4	Anjana Ghosh Memorial Social Welfare Trust
	Total	**385**	**188**	

Table 9.1: State-wise distribution of PPSA

- **Patient Provider Incentive Scheme (PPIS):** Private Providers are entitled to payments based on their achievements across milestones in the TB care cascade. This includes achievements in terms of notifications, seeding patients' bank accounts, UDST, HIV & DM Testing, providing FDCs, and reporting successful treatment outcomes. This model is being implemented in Rajasthan.
- **Under the System for TB Elimination in Private Sector (STEPS) approach,** a single window solution is provided for notification, linkage for public health actions, and treatment adherence support in private hospitals by identifying nodal persons from the health facility itself. This is being practiced in Kerala and Karnataka. A customized version of the model is being implemented in Coimbatore district of Tamil Nadu.

Irrespective of the overall approach, the following measures are taken by the States to enhance the involvement of private healthcare providers in the programme:

- Involvement of professional bodies like Indian Medical Association (IMA), Indian Academy of Pediatrics, FOGSI etc. States have also gone one step ahead and engaged the chemist associations to ensure the local chemists selling the anti-TB drugs are involved as well.
- Provision of free diagnostics under NTEP either through linkages with the NAAT facilities under NTEP or engagement with private laboratories providing diagnostic facilities through a formal MoU with NTEP.
- Provision of government FDCs to the patients seeking care from private sector.
- Incentives for private providers for notification, treatment outcomes or referral (wherever applicable).
- Incentives to patients seeking care from private sector in the form of Nikshay Poshan Yojana.
- Access to all public health actions to patients either through an interface agency or existing NTEP staff or an assigned staff of the private health facility.

In addition to the above, the states have also partnered with private entities like local non-government organizations, private laboratories, to complement the services being provided under NTEP. These partnerships are mostly done for the provision of diagnostic services like microscopy, NAAT, X ray, pre-treatment evaluation or other options like sample collection and transportation, active case finding, advocacy, communication and social mobilization (ACSM). These partnerships are being availed by patients irrespective of the sector they seek care from. Currently, there are more than 300 such partnerships across the country. Furthermore, there are many partner organizations, which support the programme by implementing projects across the length and breadth of the country.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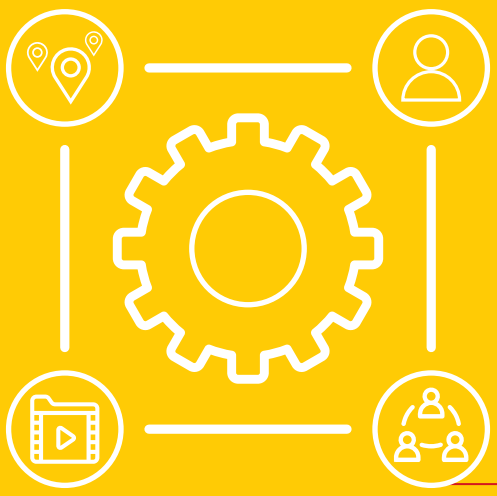
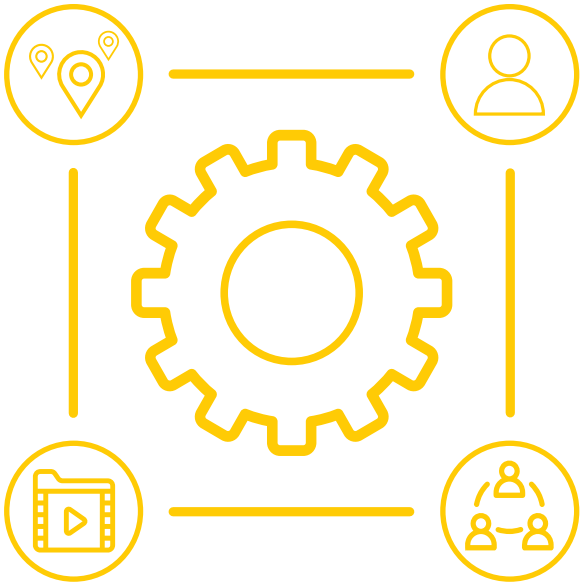


Multi Sectoral Engagement



Chapter 10

Multi Sectoral Engagement

Multi Sectoral Collaboration for TB Elimination

The mission to End TB needs a multi sectoral response through meaningful engagement and participation of all stakeholders including key Ministries, corporates, public sector undertakings, civil society, etc. Multi sectoral collaboration has become an integral part of NTEP for convergent action and reaching out to the key populations served by various Ministries/Public Sector Undertakings, civil society and other key

stakeholders. Important progress has been made in multi sectoral engagement because of commitment at the highest level. The National Inter-Ministerial Task Force (NIMTF) has been proposed and has prioritized 23 key ministries and the Niti Ayog for partnership and convergent actions. It has set its Terms of Reference (ToR) and has the intention to create a joint operational working group.

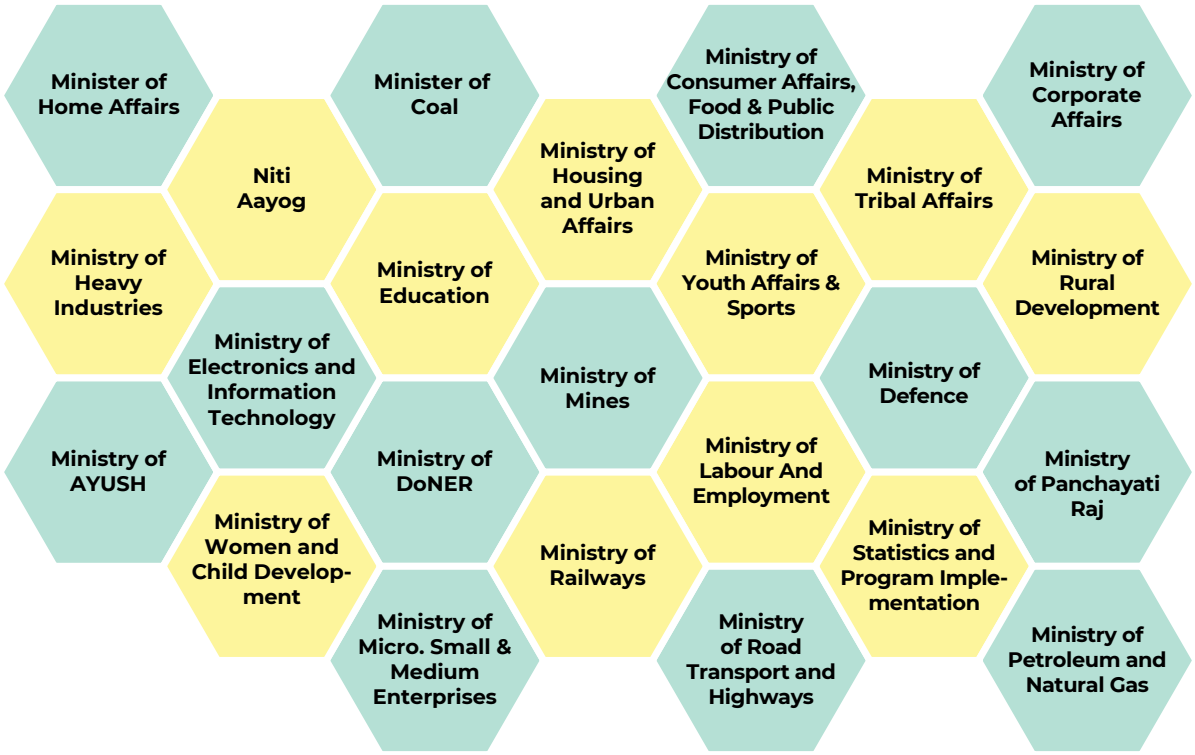


Figure 10.1: All stakeholders including key Ministries

Efforts are being made by NTEP to engage key stakeholders including Ministries/ Departments of Govt. of India, Public Sector Undertakings/ Enterprises (PSUs/PSE), corporates, business associations, chamber of commerce, civil society, and many others. The partnership and collaboration with multi-stakeholders aim to strengthen the national response against tuberculosis through garnering support for a) awareness generation & vulnerability reduction, b) integration of TB-related services in existing health infrastructure, c) linkage of persons affected with TB to NTEP, and d) social protection for people infected and affected by TB, e) interventions toward TB-free workplace, f) additional nutritional support to persons affected with TB and g) leverage on Corporate Social Responsibility.

The partnership has been formalized with key Ministries, Public Sector Undertakings (PSU) and business organizations by entering into Memorandums of Understanding (MoUs). Subsequently, the Joint Action Plan and activities framework for key institutions under the purview of Ministries have been developed.

Key Ministries & other stakeholders with whom MoUs have been signed	Date of formalization
Department of Internal Security, MHA	30th June, 2022
Ministry of Panchayati Raj	8th July, 2022
National Highways Authority of India, MoRT&H	10th October, 2022
Department of Youth Affairs, MoYA&S	27th December, 2022
Indian Oil Corporation Limited (IOCL), MoP&NG	28th December 2022
ASSOCHAM	2nd September, 2022

Table 10.1: Partnerships formalized between CTD, MoHFW and key Ministries and Business associations

Besides the above, several other ministries such as the Ministry of Micro Small & Medium Enterprises and the Department of Defence Production, preferably Defence PSUs, have been mobilized and have agreed for a Joint Action Plan.

Efforts have also been made to address the socio-economic determinants of TB. Representatives from various line ministries and corporates have come forward to extend support to TB patients under Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA).

Collaboration between Department of Internal Security, Ministry of Home Affairs and CTD

An MoU has been signed between the Department of Internal Security, Ministry of Home Affairs and Central TB Division, Ministry of Health and Family Welfare to formalize partnerships for collaborative efforts in the mission to END TB. The joint effort of both ministries has prospects to complement each other in achieving the larger objective of no incidence of TB among the Central Armed Police Forces (CAPFs), NSG & AR through leveraging each other's strengths and convergent field actions. In this regard, the MoHFW and Department of Internal Security have developed a Joint Action Plan to address TB amongst the workforce and their dependents in order to strengthen the national response against TB.

Collaboration between Ministry of Panchayati Raj and CTD

The CTD has entered into a partnership with the Ministry of Panchayati Raj (MoPR) for convergent actions toward TB Mukt Panchayats. An MoU has been signed on 8th July, 2022 between MoHFW and MoPR. Subsequently, a virtual meeting was organized by CTD and MoPR on 29th November 2022 to sensitize and to move forward for collective actions towards TB Mukt Panchayat. More than 1900 programme staff participated from across the country including NTEP staff and concerned nodal officers from Ministry of Panchayati Raj in all States & UTs. The meeting was an effort to include TB-related activities in the People's Plan Campaign 'Sabki Yojana Sabka Vikas' known as Panchayat Development Plan (PDPs).

Figure 10.2: Signing of MoU between NTEP and MoPR as part of multisectoral engagement towards TB Elimination

Collaboration for TB Elimination in North-Eastern Region

Strategic efforts have been made to strengthen TB response in the North-Eastern Region (NER) through coordinated efforts of the North-Eastern Council (NEC), Ministry of Development of North Eastern Region (MoDoNER), CTD, MoHFW and State TB Cells (STCs) of the North East States of the country.

An important strategic meeting convened under the chairmanship of Shri Moses Chalai, Secretary, NEC on 15th July 2022, had provided guidance, direction, and possible collaboration with North Eastern States for accelerating TB response in NER. NEC has committed to extend possible support and add value to TB elimination efforts in the NER by enhancing outreach to remotest areas, accelerating TB notification, enhancing nutritional support, and extending socio-economic support as a holistic & integrated approach, which are crucial to achieve the overarching mission of TB Mukt Bharat. The proposals have been developed by the North Eastern States and are being submitted to NEC for consideration and further support.

Meeting with the Ministry of Labour & Employment

A strategic meeting was held under the chairpersonship of Ms. Arti Ahuja, Secretary, Ministry of Labour & Employment on 15th November 2022 for the inclusion of TB-related services in existing health infrastructure like Employees State Insurance Corporation (ESIC) and participation of other organisations like Directorate General of Mines Safety (DGMS); Directorate General Factory Advice Service and Labour Institutes (DGFASLI); Directorate General Labour Welfare (DGLW); Dattopant Thengadi National Board for Worker Education and Development (DTNBWED) etc.

A Standard of Procedure (SOP) is being developed for engagement of various institutions & organizations of MoLE.

Partnership with Indian Oil Corporation Limited (IOCL), Ministry of Petroleum and Natural Gas & CTD

Indian Oil Corporation Limited (IOCL) has joined hands with the CTD, MoHFW towards strengthening the national response against TB. A MoU has been signed between Indian Oil Corporation Limited (IOCL), CTD, MoHFW, and State TB Cells of Uttar Pradesh and Chhattisgarh on 28th December 2022 in the august presence of Hon'ble Union Ministers of Ministry of Health & Family Welfare and Ministry of Petroleum & Natural Gas. IOCL has agreed and committed to CSR-led project 'Intensified Tuberculosis (TB) elimination Project in Uttar Pradesh and Chhattisgarh' to supplement government efforts towards the mission of TB elimination.

There are several activities that have been envisaged under the project for the states of Uttar Pradesh and Chhattisgarh. The major activities are donation of molecular diagnostics (NAAT machines), hand-held X-ray machines, mobile medical vans, and field-level intervention for awareness and Active Case Finding (ACF) for the state of Uttar Pradesh.

National Conference on Multi Sectoral & Corporate Engagement

'National Conference on Multi-sectoral & Corporate Engagement towards TB Elimination in India, Theme: Strategic Innovations and Cross Learnings' was organized by CTD, MoHFW in collaboration with The Union, IQVIA, and WHO India on 17th & 18th October 2022. The two days' conference witnessed the participation

of representatives of various Ministries, officials of State Governments, State TB Cells, dignitaries, and senior-level officials from corporates, public sector undertakings, and development partners. The national conference was organized with objectives to understand successful models of multi-sectoral engagement and to provide a platform for cross-learning among stakeholders i.e., Govt. Departments, States, PSUs and Corporates.

There were several technical sessions held at the national conference such as a panel discussion on accelerating efforts for TB elimination through multi-sectoral engagement, Sector and Population-based engagement and implementation models, TB Free Workplace – Reaching the unreached, State led initiatives for multi-sectoral engagement, Support of Associations (Business and Medical) in multi-sectoral/ corporate engagement, Pradhan Mantri TB Mukt Bharat Abhiyaan: Ni-kshay Mitra, PSU led initiatives for TB elimination, Successful initiatives from states in multi-sectoral engagement, and Progress update in inter-ministerial collaboration.

Corporate TB Pledge

Corporate TB Pledge (CTP) initiative was launched in 2019 by the Ministry of Health & Family Welfare, Government of India and USAID India. The initiative is being implemented by the International Union against Tuberculosis and Lung Diseases (The Union) as part of the iDEFEAT TB Project, which focuses on mobilizing the corporate sector and providing technical support to engage in various activities and programs toward TB elimination. The journey has been evolutionary with regard to the contributions from the corporate sector.

For doing so, a focused approach was taken to introduce and sensitize STOs, DTOs, and PPM Coordinators to corporate sector engagement strategies so that the strategies within the programme could be implemented through states and long-term sustainability can be ensured.

As a result, in the year **2022, 151** new stakeholders, including Business Associations, PSUs, Corporate hospitals and several prestigious Corporates joined the initiative, taking the total count to 300. These corporations are from various sectors such as the Tea Industry, Mining, Engineering, Textile, Oil and Natural Gas, Banking and Automobiles etc. This diverse pool of stakeholders has been instrumental in demonstrating intervention models across sectors and populations.

The initiative gathered momentum with the launch of the PMTBMBA by utilizing new platforms for advocating with the corporate sector to come forward and join hands in the fight against TB. The Pledge holders actively participated in PMTBMBA (Ni-kshay Mitra) and over 20,000 TB patients were adopted by 50 corporates for nutrition support. Moreover, through CTP supported DR-TB Consortium, a platform for increasing participation of the corporate sector in DR-TB space is also being provided.

HARNESSING THE POTENTIAL OF PSU ENGAGEMENT

Public Sector Undertakings (PSUs) with substantially high annual Corporate Social Responsibility (CSR) outlay can contribute significantly to mitigate the fund inadequacies for TB care by providing Corpus funds, adopting districts, donating diagnostic devices and through patient adoption for providing nutrition. This was taken into consideration when approaching PSUs.

The prominent ones to join the league are Maharatna PSUs - CIL (Coal India Ltd.), IOCL (Indian Oil Corporation Ltd.) Vadodara, ONGC (Oil and Natural Gas Corporation Ltd.) Bharuch, and Miniratna PSUs - MDL (Mazagon Dock Shipbuilders Ltd.), NRL (Numaligarh Refinery Ltd.), Mangalore Refinery & Petrochemicals Ltd. (MRPL), Garden Reach Shipbuilders & Engineers Ltd (GRSEL)., BDL (Bharat Dynamics Ltd.), CCL (Central Coalfields Ltd.), RITESL (Rail India Technical and Economic Service Ltd.), and State level PSUs - RIICO (Rajasthan State Industrial development and Investment Corporation), GNFC (Gujarat Narmada Valley Fertilizers and Chemicals Ltd.).

GARNERING SUPPORT FROM CORPORATE HOSPITALS

Corporate hospitals can utilize their resources and expertise, bring in innovation and upgraded technology, extend their facilities, provide additional infrastructural and staff support, undertake active case finding, establish microscopy centres, adopt patients for nutrition, develop best practices for treatment adherence, and support continuing medical education (CME) & training of medical officers. This year, focused approach of mobilizing Corporate hospitals produced results and many leading corporate hospitals joined the initiative and demonstrated innovative models.

11

Community Engagement

Chapter 11

Community Engagement

Background

Community Engagement is key to improve health service coverage and deliver accessible and people-centred integrated care. Community engagement, through the implementation of community-based TB services as an integral part of the health systems, provides an opportunity to increase health service coverage and find the missing people with TB, while ensuring that delivered care is safe, effective, efficient, equitable, and people centred. Globally, community engagement has been mainstreamed for ensuring that communities are equal partners in our collective response to ending TB.

Under the NSP 2017-2025, a community-led response for TB has been incorporated as one of the key strategies to reach the unreached and to support persons affected with TB through their care cascade. Community engagement is the process of partnering with and through communities to address issues affecting their well-being,

including influencing systems and serving as catalysts for changing policies, programs and practices to become more patient sensitive.

Efforts are being made under the NTEP to actively engage various stakeholders including civil society and community in programme planning and design, service delivery, monitoring and in advocacy. These include Elected Representatives and local self-governments, Civil Society Organizations, industries, etc and TB affected communities.

Engaging with TB affected Communities:

Persons affected with TB often face social discrimination, due to society's prejudice. They also have to face economic barriers (for example, the cost of transport, ancillary medicines and investigations in the private sector). While there are existing strategies under NTEP such as workplace policies, support for transportation, involving private sector in service delivery, and advocacy and communication to increase awareness and mitigate stigma, it is very well established that affected communities could play a vital role in enhancing effectiveness of these strategies and bridge in gaps. Communities, especially those who had gone through the experience of fighting TB, have the unique advantage of being close to their peers, understanding the issues and field reality as well the ability to communicate and articulate their needs. The Programme promotes community-based interventions for awareness creation and stigma reduction, screening and referral, treatment adherence support, etc. as a strategy.

Institutional mechanisms for a community-led response to TB:

TB Forums at National, State and District levels provide an institutional platform to include community as an important stakeholder to improve the quality of TB services and making the services patient centric. The TB forums consist of representations from people who were affected by TB, elected representatives, policy makers, civil society organisations/ NGOs, and programme managers. Creation of community-led TB forums at the sub-district and village level is also being facilitated.

TB Forums have the mandate to:

- To advice on ensuring patient centric delivery of services and making the Programme more responsive to the needs of people, especially of TB affected communities.
- To advice on formulation of policies and strategies for engaging communities and increasing community participation in NTEP and provide feedback on their implementation.
- To discuss community's feedback on

critical gaps in service delivery and propose solutions to strengthen the Programme.

- To discuss concerns of TB affected communities, including that on TB related stigma & discrimination and of patient support requirements, and advocate for their solutions.
- To identify and recognise (1) best practices across the country on community engagement and (2) the contribution made by community members, survivor networks and civil society organizations to the fight against TB.

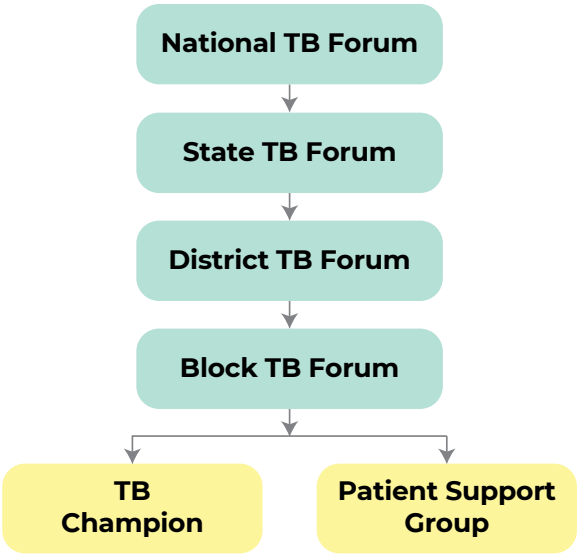


Figure 11.1: Institutional mechanisms for a community-led response to TB

The National TB Forum is being reconstituted after every two years with civil society representatives and ICMR representatives as co-chairs. Equal representation was ensured from line ministries namely Ministry of Rural Development, Ministry of Panchayati Raj, Ministry of Social Justice & Empowerment, Ministry of Health & Family Welfare, departments, civil societies, affected community, academicians, media, subject experts, etc. TB Forums have been constituted in all States/UTs and District TB Forums are formed in 711 districts. Most of the States and Districts also reported convening their meetings and discussing various issues.

Moving forward, the Programme plans to set broader agendas for discussion and monitoring of action taken on the decisions made in the meetings of TB Forum at various levels.

Key Community Engagement Activities

- Various models of engagement of TB affected communities in the programme are implemented in the country and includes capacity building and engagement of TB survivors as TB Champions, establishment of Peer Support Groups, community led mentoring and grievance redressal services, community feedback through patient score cards, etc.
- A standardised 3-day training curriculum for empowering TB Survivors to become TB Champions has been developed, incorporating newer initiatives in the programme. A state level resource pool is made available through a series of regional trainings that were conducted earlier. Through this, more than 3000 TB Champions underwent the 3-day training and are now supporting the programme.
- For self-motivated citizens of the country, a self-learning course for

TB Champions has been developed and launched on 9th February 2022 on e-platforms and is made available through iGOT, TB Vani and Swasth e-Gurukul. A certificate is auto generated upon successfully completing the course. Currently, more than 28,000 TB Champions have registered across all the platforms.

- Once trained, a TB Champion may document their activities through a self - reporting mechanism. This feature has been made available through Arogya Saathi app.
- To reach out to the urban communities, CTD held planning meetings with the NUHM division, MoHFW. The meetings were held at two levels – National and State levels. In the State level meeting, all STOs and nodal officers of NUHM were involved. Online orientation of NUHM State officers was held involving Mahila Arogya Samiti (MAS) for community engagement.
- Different demonstration models are being piloted for engaging the existing community structures including the MAS, SHGs, PRIs, etc. These models aim to provide sustainable and integrated models to achieve TB Mukt Bharat.
- The 'National Workshop on Best Practices in Community Engagement for Ending TB' was held in New Delhi on September 14-15, 2022. The consultation workshop brought together the community, government, and national TB partners to a common platform to share, deliberate, and reflect on what has worked well, and the potential for community-based models in ending TB that could be adopted and scaled. A compendium of the best practices showcased was published.

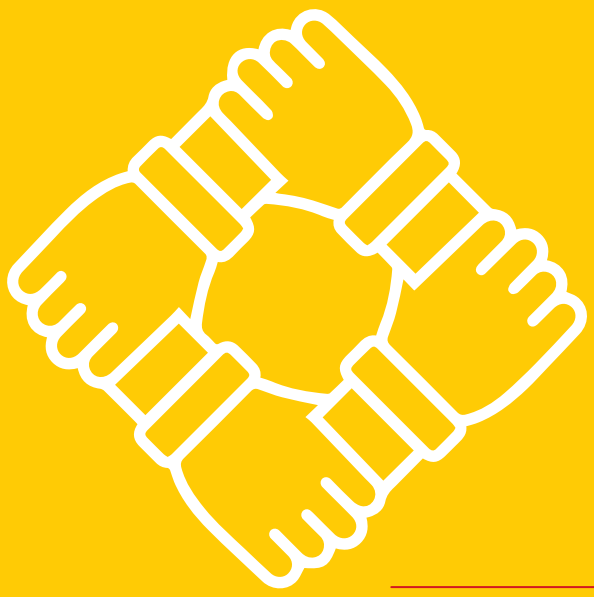
Stories from the field

Andhra Pradesh: TB-DWCRA meetings

DWCRA (Development of Women and Children in Rural Areas) are self-help groups consisting of 15-20 women each. They meet once a month to discuss their progress. These meetings are being used as platforms for sensitisation regarding TB to create agents of change in the society for the fight against TB. These meetings signify a collaboration of NTEP with the Department of Women Development and Child Welfare.

12


"Jan Andolan on T.B.(June)-2021"
Special screening camps for TB in pregnant women
under PMSMA
T.B. Herega Desh Jeetega
(T.B. Mukt Bharat-2025)
Venue :- Sonamura CHC,
Date :- 09-06-2021
Organized by:
District Health & Family Welfare Society, SPJ &
District Tuberculosis Cell– Sepahijala District



Advocacy, Communication and Social Mobilization (ACSM)

Chapter 12

Advocacy, Communications and Social Mobilisation (ACSM)

***Jan Bhagidari* (peoples' participation) at scale to accelerate ending TB in India**

"I believe that with this power of public participation, India will definitely be free from TB by the year 2025." - Prime Minister Shri Narendra Modi on Mann Ki Baat.

In 2018, India committed to accelerate its efforts to end TB in the country, thereby leading the achievement of the Global Sustainable Development Goals for TB from the front. India recognises that with several socio-economic aspects associated with it, TB is not just a mere medical challenge but a significant social issue. Accordingly, since 2018, NTEP has stepped up the supply side services to plug the gap between the estimated and notified cases, scaled up molecular diagnostics, and introduced newer treatment regimens. It has also aggressively taken to scale interventions to accelerate demand generation for TB services in the country. This has been underlined by notable progress in political and administrative commitment.

The ACSM National Technical Support

Unit (NTSU) has been established. The unit supports scale up of TB ACSM interventions and also provides guidance to the States to implement interventions. National-level systems and processes for strategic planning, budgeting, monitoring, information-sharing and creation of communication content were established for TB ACSM interventions. The States focused on introducing the same, contextualised to their unique circumstances.

The highest level of advocacy success for the programme has been the Prime Minister's endorsement of *Pradhan Mantri TB Mukt Bharat Abhiyan* (PMTMBA).

Policy Level Interventions

Strategic Planning

For any plan to be effective and efficient, it is critical that it is not ad-hoc, is sustained and is based on the expected result and objective. This principle is equally applicable to TB ACSM as it is to the supply-side interventions of the programme. Accordingly, a national workshop on ACSM strategic planning was conducted in early January 2022 to help States and Districts plan their strategy and interventions right at the beginning of the year. Planning and implementation templates to develop contextualised plans mapped to the programme objectives were used to develop the same. These formed the basis of budgeting and were included in the PIP (2022-24) through an exclusive budget line for ACSM interventions. A provision for supplementary PIP for 2023-24 was also made to address additional requirements going forward. 25 States prepared their plans accordingly.

Monitoring

One of the most challenging parts of ACSM interventions is their monitoring and evaluation. Specific interventions that are large enough to be monitored and measured, require a systematic process of baseline and end-line performance measurement. However, for a national programme of the scale of the NTEP, and on a mission mode at that, it is also very critical to monitor all the activities happening across the country. The objective is to gain regular, real-time insights of the interventions being carried out, and course-correct or fortify as relevant. Therefore, in July 2022, as a first, ACSM monitoring indicators were included in the Ni-kshay Portal. This set of eight composite indicators have been carefully chosen, post deliberations with States, Districts and other stakeholders. Comprehensiveness, ease of data entry and evidence are the key criteria applied to this monitoring process.

Capacity building sessions with State and District teams have been conducted. An average of 22 States have been entering the data every month since August 2022. Continuous and consistent follow-up with the States and Districts is in place to encourage data entry and documentation.

Building Team Capacity

A series of virtual capacity-building sessions called #TBTuesdaySeries was initiated for State and District teams. Held on the 3rd or 4th Tuesday of every month, each session focuses on a new theme related to ACSM. This initiative also provides an opportunity for cross-learning as States and Districts share their interventions, experiences, and outcomes. These sessions are widely attended and usually see a participation from over 700 attendees including STOs, DTOs, IEC officers, PPMs, WHO consultants and other stakeholders.

Topics such as social media engagement, editorial media engagement, convergence with other government agencies, and community engagement have been discussed over the nine sessions held last year. Specific tool kits relevant to the sessions were also designed and shared for easy use by the States and Districts. Special state-specific sessions were also held based on requests for the same.

Mass Social Mobilisation Campaign

In order to take TB conversations centre-stage, a three-week long, nation-wide campaign was launched as a run-up to World TB Day 2022. This campaign titled *Poorn Sankalp Sanyukt Prayas* commenced on *Ni-kshay Diwas* - Feb 24, 2022. The objective of this campaign was to unlock unified TB ACSM activities, at scale, within the same timeframe, across the country, thereby providing a multiplier to TB conversations. The campaign was branded, a set of ACSM activities to be conducted week-wise were outlined, toolkits were developed and capacity-building sessions on the same were conducted with the States. A reporting format was also created for States and Districts to report on the activities implemented as a part of this campaign. 24 States and 168 Districts reported their activities, suggesting that they reached out to over 2.1 million people through this campaign. These interventions spanned ACF, media engagement, engagement with elected representatives, pledges etc. Media engagement at local levels was a significant highlight during this campaign. A special pledge-taking initiative was also launched with MyGov and it received an unprecedented 70,000 plus pledges in just over a month compared to the 90,000 pledges for TB that it received over a period of over two years.

Social Media Amplification

The last year, very specially, focussed on social media presence for the TB programme and organic amplification of the same. The key idea was to ensure that States and Districts open social media accounts, become familiar with them, and begin to use them in a robust and consistent manner. Uniform branding of official NTEP social media handles across the country, capacity-building sessions and specific toolkits to support and guide the teams and active postings from the Central,

State and District social media handles has resulted in stirring TB conversations online. 'TB Mukt Bharat' was identified as the uniform branding for all official NTEP social media handles followed by India (national)/State/District name. 350+ new Twitter accounts and 220+ new Facebook accounts have been created at the State and District levels. #TBMuktBharat was established as the key mandatory hashtag for each post and it is also being promoted by the MoHFW. According to a social media analytics company, this hashtag has received 280,000+ mentions, reached 265 million and over 1.2 billion impressions during the period January-December 2022.

Key messages that are posted on social media like Twitter and Facebook include various aspects of TB disease, starting with awareness on cough hygiene, seeking care for symptoms, treatment completion, availability of free diagnostic and treatment services in public hospitals, nutrition, and others.

Figure 12.1: Young Generation lending hand as Ni-kshay Mitras to eliminate TB

Media Engagement

During the last year, efforts were made to ensure sustained editorial spotlight on TB. These span regular and periodic programme-narrative documents, interventions around key calendar days (e.g. World TB Day), engagement with special report releases (e.g. India TB report), op-eds and the narratives for key flagship events of the programme (e.g. Ni-kshay Mitra launch). National TV programming on Sansad TV as well as radio programming on AIR were also undertaken. This resulted in increased coverage across mainstream national and media outlets in print, digital, radio and TV formats on various aspects of TB to improve awareness on the disease, supportive government policies and interventions, and available support for patients as well as caregivers.

More than 700+ State and District officials were trained in how to engage with editorial

media for greater media coverage and ensure effective, consistent dissemination of TB messaging. To enable this, a toolkit was developed for editorial media engagement, outlining how officials can conduct media engagement activities, as well as providing customizable templates that can be used in the process. This has resulted in increased and sustained media coverage on TB on State and District levels as well.

Celebrity Endorsement

Celebrity engagement with the programme was undertaken very actively over the year. At the beginning of the year, iconic celebrities across entertainment and sports industries pledged their support to help end TB in the country. 12 such celebrities featured in a special video, pledging their support along with other stakeholders, participating in the country's *Jan Andolan* against the disease. This video was first played during the national World TB Day 2022 celebrations and thereafter, disseminated across various media platforms.

Shri Rajkumar Rao, Ms PV Sindhu, Shri Ravi Kishan, and Dr. (H.C.) Deepa Malik joined this mission to end TB as National Brand Ambassadors of the programme. They have begun to engage with the programme through diverse interventions. Dr. (H.C.) Deepa Malik visited the Ministry of Health and Family Welfare Pavilion at the 41st India International Trade Fair at Pragati Maidan, New Delhi. Being a TB survivor herself, her presence and engagement with the audience was very encouraging. She has also joined the mission as a Ni-kshay Mitra and has adopted five PwTB to provide nutritional support. Mr. Ravi Kishan, an elected representative from Gorakhpur, Uttar Pradesh, is also a famous actor and nominated as TB Brand Ambassador, also became a Ni-kshay Mitra by adopting TB patients.

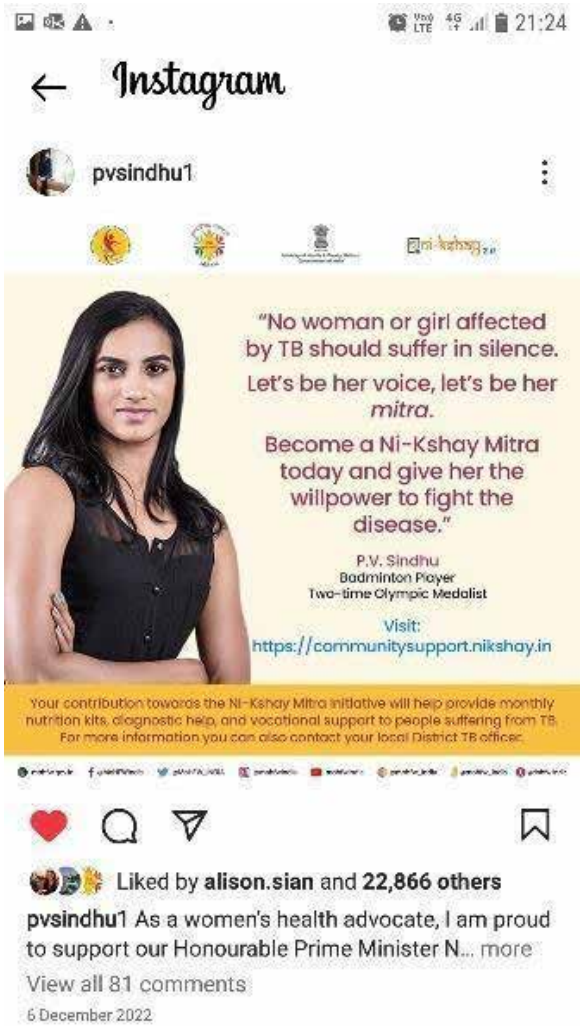


Figure 12.2: Ms PV Sindhu urging followers to become a Ni-kshay Mitra

Campaigns to Nudge Health-Seeking Behaviour

Communication campaigns were developed centrally and then shared with the States for dissemination. This was done with the objective of rolling out uniform, nation-wide communication campaigns.

The link between Covid-19 and TB has been established. Covid-19 affected patients are more prone to contracting active TB due to the resultant impact of the virus on the respiratory system. Additionally, active TB is a comorbidity that attracts Covid-19. The protocol laid down also suggests bi-directional screening for the two diseases. Given the pandemic, the virus was also on the mind for everyone last year and it has changed people's attitudes and behaviours towards health issues. Therefore, leveraging the salience of the disease, a campaign with a Covid-19 connect was designed to increase TB awareness and encourage screening, and testing. Many States implemented this campaign through various platforms.

National Workshop on Advocacy, Communications and Social Mobilisation (ACSM): 7- 8th December, 2022 New Delhi

The first ever National Workshop on ACSM was organised for the NTEP teams, by the ACSM-NTSU, in collaboration with the CTD. The key objective of the workshop was to encourage cross learning among the States and to reinforce the importance of ACSM to end TB in India. Additionally, speakers from eminent organisations discussed and advised on crucial aspects for TB ACSM interventions - communication design, content creation and delivery, measurement, and learnings from other programmes (Swachh Bharat, HIV, COVID), engagement with media, PRI engagement, and digital media – through various panel discussions and presentations.

Prior to the workshop, applications were invited from the States on 'Best Practices on ACSM'. 15 State entries were selected by an evaluation committee, from among the 22 submissions. These States made their presentations during the workshop spanning various ACSM topics from editorial media engagement, use of videos, wall paintings, PRI engagement, engagement with elected representatives etc. States were also given an area to display ACSM material that they have been using in their States. Himachal Pradesh, Rajasthan, and Gujarat were felicitated as the top three entries.

80% of the participants agreed that they have gained ACSM knowledge over the year and most agreed that, while significant progress was made last year, there is enough scope for the team to collectively do more. The consensus was that TB communication, in the immediate time frame, should be targeted at the general population and should focus on early diagnosis and prevention.

Over 100 participants from across India, and nearly 30 nearly 30 panellists and moderators participated in this learning exercise. It saw an overwhelming participation from close to 30 States, senior

CTD officials, State TB officers (STOs), IEC officers, WHO consultants, TB champions, and several other NTEP partners joined this learning exercise.

The *Jan Andolan* to end TB has begun with great motivation and garnered enormous momentum, which in the coming years we will see the efforts move from one successful milestone to another. ACSM interventions have been planned with this philosophy. Diverse interventions spanning adding ACSM teams, building capacity, scientific planning and budgeting, effective implementation of interventions, review and monitoring processes will be the focus of ACSM over the next year.

"We reaffirm the commitment to make India TB-free by 2025 by ensuring access to quality healthcare & advanced treatment. Together we can and we will eliminate TB and work towards a healthy and disease-free India"

- ***Dr. Mansukh Mandaviya, Union Minister of Health and Family Welfare***

Innovations and Best Practices

Chapter 13
Innovations and Best Practices

This chapter captures the best practices and success stories designed and implemented in various geographies in response to a specific problem to improve a health outcome of the patient or addressing a health system related challenge. This may include (but are not limited to) innovations that apply systems thinking to health problems such as the use of information technology to strengthen continuum of TB care cascade and to addressing human resource shortages and challenges in capacity building, and innovations that address the other needs of the programme.

Under this chapter, the various best practices, and innovations from different States/UTs have been categorised into the following:

- **Best Practices**
- **Innovations from States/UTs**
- **Voices from the Field**

Best Practices

1. Multisectoral engagement:

Kerala

i. Nalumanipookal – Flowers that bloom at 4 o'clock – an innovation combining women empowerment, community participation and peer education to fight against stigma and discrimination.

This project was conceptualised by the District TB Officer involving one of the largest women's networks in the world, the District Kudumbasree mission and piloted in the district with the approval from district administration. Project aimed at *"behavioural change communication, knowledge dissemination, attitude change and reduction of stigma and discrimination"* among general public incorporating elements such as women empowerment through peer education and community participation encouraging neighbourhood groups (NHGs) of women to take ownership of TB elimination mission with the goal of TB free NHGs. **Handbooks with information regarding TB in local language were given to all 12, 536 NHGs covering a population of approximately 1,88,000 women which were to be discussed by the NHG leader with the group of 10-15 women assembled in the weekly meeting**. A google screening and feedback form were to be filled at the end of discussion and a photograph to be shared in the Whatsapp group exclusively created for live documentation and monitoring by district authorities. During the pilot phase

itself more than 5000 NHGs submitted the google forms. This has catered in making TB a household discussion topic and helped in screening of members of the family through the NHG members.

ii. Nupaal sample collection unit – A microenterprise by a group of women spearheading a cost- effective sputum hub and spoke mechanism

A new beginning was required to revive the sputum transportation across Idukki, the second largest district in the state with 90% area covered in forests and mountainous terrains with mostly rural population. When the direction for upfront molecular testing came from the state TB cell, *our challenge was to find a cost effective as well as efficient way of arranging transportation from periphery to the nearest NAAT site*. DTO discussed the issue with the District Programme Manager of Start-up village ownership programme (SVEP), Kudumbasree and devised a plan. A group of 9 motivated women agreed to be sputum transporters. An MoU was signed between the District Kudumbasree mission coordinator, DTO and the president of microenterprise. All PHIs were mapped and divided into 9 routes covering 4-5 PHIs and each route covering around 100-180 kilometres depending on the area. These women were trained and were provided customised bags which contained racks to hold the tubes containing the sample (Figure-2). This way their safety and convenience were ensured. They travel predesignated routes to bring samples from periphery to the molecular testing sites. This has ensured in giving upfront molecular testing to all vulnerable groups and those referred by both doctors. Currently more than 50% of such samples come from over 100 kms and cost of sample transportation is Rs.96/ sample from any part of the district to the nearest molecular testing site.

Maharastra

i. Employer led model for TB and Diabetes care in *BEST*, Mumbai, India

Brihanmumbai Electric Supply and Transport Undertaking (BEST, Mumbai) provides health care services to 30000 of its employees through a network of 26 dispensaries across Mumbai. BEST adopted an employer led model and intensified TB and Diabetes screening activities through programmatic collaborations (Figure No. 13.1). This strategy was carried out from November 2021 to June 2022 with active

support from Mumbai District TB Control Society of Municipal Corporation of Greater Mumbai. Of the 1200 BEST employees enrolled as diabetic, 1127 (94%) diabetic employees who volunteered were screened for TB by both clinical examination and a chest Xray. Eleven individuals, reported to have an abnormal lesion in chest X-ray were further subjected to detailed clinical examination and sputum examination through NAAT. Of these, one individual was diagnosed as micro-biologically confirmed TB and the other one was clinically diagnosed as TB. Both of these individuals have successfully completed the treatment.

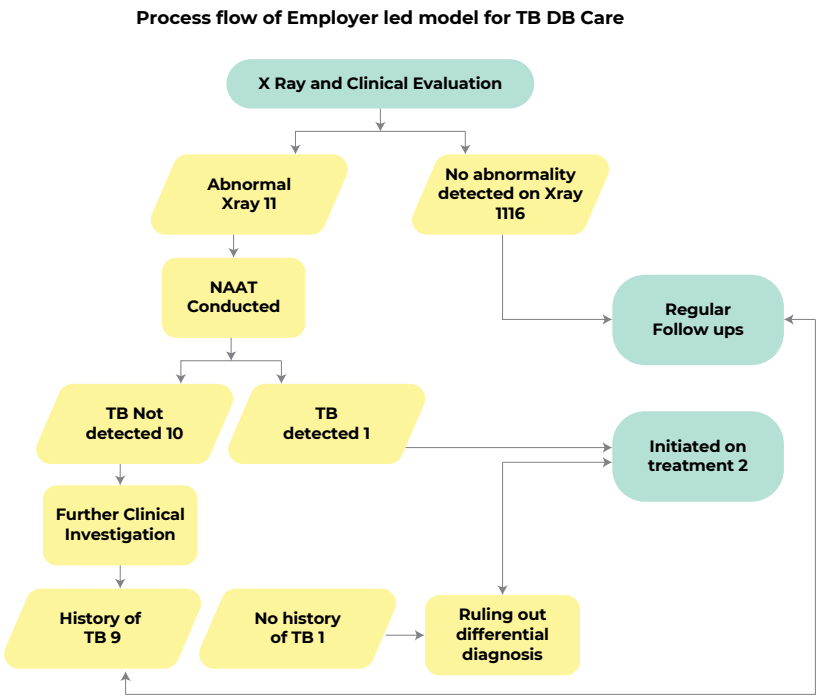


Figure 13.1: Employer model of care followed by BEST

Lessons learnt

An integrated approach for solving the burden of TB-DM through workplace policies leads to earlier diagnosis, successful treatment outcomes and most importantly curbs the transmission of TB. Such workplace policies through collaborations can help take NTEP services to the unreached and simultaneously makes the workplace environment conducive and more productive.

2. Health systems strengthening

West Bengal

i. Implementation of Tuberculosis Death Surveillance & Response (TBDSR)

Background:

In consonance with the End TB targets for mortality, the state has initiated a systematic and structured approach to TB death analysis within the ambit of "Tuberculosis Death Surveillance & Response". The primary objective of TB-DSR is to capture all TB deaths both from public and private sector, identify level of delays (both at community & facility level), ascertain knowledge, attitude and health seeking behaviour in the community regarding TB disease, socio-demographic factors related to TB deaths and take corrective measures to avert such deaths in future.

Intervention:

TB-DSR process envisages prompt reporting of TB deaths within 24 hours in a prescribed First Investigation Report format, conducting community-based review by a team of field-level workers led by a MO and a facility-based TB death review within the stipulated time frame of 21 days. Thereafter, all TB deaths are reviewed by CMOH of the districts and a few select cases are reviewed by District Magistrate in presence of relatives of the deceased.

Outcome:

Following implementation of TB-DSR, the identified preventable causes are being addressed and the TB death rate has declined from 6% in 2021 to 5% in 2022.

Telangana

i. Integration of TB infection testing with Telangana Diagnostics (TD)

Implementation:

Under the National Free Drugs & Free Diagnostics Services initiative, NTEP Telangana decided to leverage upon the existing in-house Telangana Diagnostics (TD) platform for IGRA testing through a hub and spoke model, wherein a Hub would be at district level catering to all Health Facilities as Spokes in the periphery. Training & infrastructure needs assessment was done followed by advocacy with CH&FW and TD team for piloting in 2

districts. After successful implementation, this was scaled up to all 20 existing hubs which catered to all districts of Telangana.

Outcome of the pilot:

A total of 2712 IGRA tests have been done in 8 districts, of which 48% are found to be positive for TBI. The intervention reduced patient travel as well as turnaround time for results and paved the way for early initiation of TPT for eligible beneficiaries.

Way forward:

(a) Scaling up IGRA testing services to all 33 districts, as and when TD hubs are established in the remaining 13 districts, (b) leveraging the sputum transportation mechanism for TBI and TB diagnosis, (c) the TD hubs to be utilised for providing baseline investigation to all TB patients and for ensuring differentiated care for TB patients by integrating with e-sanjeevani.

Himachal Pradesh

i. Drone-a new vehicle for drug and sputum sample transportation in District Mandi in Himachal Pradesh

Problem:

The mountainous terrain of District Mandi in Himachal Pradesh has several difficult to reach areas and accordingly the timely transportation of sputum samples and TB durgs is often a challenge.

Intervention:

Following a MoU between a private service provider company and NHM (HP), an intervention on sputum sample transportation and TB drugs transportation was rolled out in Janjehli health block in September 2022.

Outcome:

Total 28 flights had been taken till 31 Jan 2023 between DTC Mandi, Block HQ Janjehli, and different PHIs. Sputum samples were transported from peripheral institutions to DTC for testing in NAAT and TB drugs were transported from DTC to Block HQ in a few return flights. It takes more than 4 hours to cover a road distance of 90 km between DTC and the block HQ, however, Drone covered an average aerial distance of 40 km in each flight within 50 minutes at a unit cost of Rs 45/Km. Usage of drones reduced the transportation time and operational costs to one fourth.

Conclusion and Way Forward:

Use of drones is feasible, efficient and cost effective in transportation of samples and drugs; however, it has immense importance in mountainous geographies and terrains having limited access. The State is in the process of expanding drone's services in other geographies with additional services for patients in the coming year.

Figure 13.2: Drone being utilized for Sample collection and transport at District Una, Himachal Pradesh

Uttar Pradesh

i. Observation of the Monthly Integrated Ni-kshay Diwas for TB elimination

Background:

It was decided to observe the 15th day of every month as Ni-kshay Diwas across all health establishments including private practitioners to cover a wide spectrum of services from health promotion to retrieval of patients who were lost to follow up.

Activities:

Preparatory activities were done with involvement of ASHA workers informing the community about Ni-kshay Diwas and identifying presumptive TB cases for their mobilisation to the nearest health facility. Banners on Ni-kshay Diwas and TB-related messages through LED screens were displayed across all HWCs, CHCs, PHCs, District Hospitals and Medical Colleges.

On Ni-kshay Diwas, following activities are envisaged:

- It is attempted to refer 10% of total OPD cases for presumptive TB testing.
- Comorbidity testing, enrollment on the Ni-kshay and e-Kawach platforms, specimen transport to the nearest TB diagnostic centre through a network of "sample transporters" and further

appropriate management consisting of bank account seeding and universal drug susceptibility testing for notified TB patients are ensured for the beneficiaries.

- All private practitioners are encouraged to notify TB cases followed by contact tracing and follow up of patients.
- Presumptive TB Patients tested negative on sputum examination are offered X-Ray.
- Retrieval of lost to follow up patients with involvement of block level health officers, treatment supporters, Gram Pradhans and ASHA workers is also an important activity on Ni-kshay Diwas.
- All activities are reviewed at all levels after completion of Ni-kshay Diwas.

Integrated Ni-kshay Diwas:

To leverage on activities of Ni-kshay Diwas, 'Integrated Ni-kshay Diwas' initiative was launched in January 2023 with incorporation of Leprosy, Kala Azar and Filariasis control strategies with TB activities.

Outcome:

31,030 presumptive cases were examined and 1312 (4.2%) cases were diagnosed with TB in two rounds of Ni-kshay Diwas during December 2022 & January 2023. 1142 lost to follow up patients were retrieved across the State during these rounds.

Rajasthan

"Mhaaro Gaon, TB Na Pasaare Paon"- "TB Mukt Gram Panchayat Abhiyaan"

NTEP Rajasthan with collaboration with Panchayati Raj department has been organising the "TB Mukt Gram Panchayat" campaign from August 15, 2022 to achieve the goal of elimination of tuberculosis in the state. Effective leadership and participation at the gram panchayat level is essential for a TB-free village.

Overall approach:

Under the campaign, 5 Gram panchayats/ wards have been identified in each TB unit for the goal of "TB-free Gram Panchayat" and a Patient Support Group (PSG) of 10 to 12 members has been formed, consisting of the Sarpanch, Deputy Sarpanch, Panchayat Secretary, Medical Officers, TB champions, CHOs, ANMs, ASHA, Anganwadi workers, government teachers, religious groups and voluntary organisations and other members.

TB champions have been identified at the panchayat level and awareness activities have been organised by them in the presence of local Panchayat leaders. Ni-Kshay Gram Sabha was organised all over the state on days of national importance

like 15th August 2022, 2nd Oct 2022, and 26th January 2023 in collaboration with the Panchayati Raj Department. TB Pledge campaign was organised on Republic Day.

Key activities conducted:

1. Case finding- Active and Passive (including post-TB, post-COVID and other vulnerable groups)

2. Community awareness activities

3. Community support activities (Ni-Kshay Sambal Yojana)

4. Public health action of current TB patients including TPT to contacts.

Table 13.1: Outcomes (as on date)

Gram Panchayat/Urban wards identified	1440
TB champions identified	1316
Gram Panchayat/Urban wards with an ACSM plan	1311
Active case finding-1st round	17th Oct - 12th Nov 2022
Total population screened	20,83,213
Total presumptive referred for testing	17637
TB positives found	163
Active case finding-2nd round	26th Jan - 12th Feb 2023

Scale-up Plan: State intends to scale this campaign to all Panchayats of the state by year 2025.

Innovations in this campaign:

Evaluation committee - A team of technical experts led by AIIMS Jodhpur in collaboration with IIT Jodhpur has been constituted to design an evaluation mechanism in identified geographies.

ACF Hindi app - TB Screening Module in the Community Health Integrated Platform-CHIP was implemented in collaboration with Khushi Baby, the technical support partner of DMHFW, GoR. The "CHIP" under Nirogi Rajasthan Campaign, was the objective of DMHFW, GoR that envisions to complete the loop of health care delivery services at community level by developing a digital repository of beneficiaries and providing the continuum of care throughout their life cycle. The entire ACF has been conducted in a paperless manner through an Hindi-based ASHA/ANM app.

Ni-kshay Mela - was organised in all

districts to create awareness about TB in communities across the geographies on 7th Feb 2023.

The campaign will conclude in the 1st week of March after which evaluation shall be conducted. The best-performing geographies will be felicitated at the state level on 22nd March in the state-level World TB Day function & identified TB Free panchayats will be felicitated in state-level function to be organised on 24th April 2023, National Panchayat Day.

Maharashtra

i. Wardha District TB Centre along with Rotary Club of Gandhi City, Wardha collaborated in the establishment of Vocational skill Training centre for the Treatment completed TB patients.

Rotary Club and Wardha DTC has jointly envisaged employment generation for ten treatment completed TB patients by delivering vocational skills and Vocational skill training centre has been established and inaugurated on 3/2/2023 in presence of District Health Officer Dr. Raj Paradkar, Rotary club President Mr. Shailesh Sinhal, DTO Dr Madhuri Dighekar and Nilima Bangre Project co-ordinator sewing skill training, special guest Mr. Hiraman Lanje and NTEP staff and other Rotary club members.

Through PMTBMBA, Rotary club of Wardha district had adopted 50 TB patients for 6 months and Nutritional kits had been distributed by them. Out of which 10 patients who completed the treatment were identified and offered the training for developing the skill of sewing in order to create employment opportunities.

3. Partnerships

Tamil Nadu

i. FAST – Unite to end TB in Tamil Nadu

"FAST (Find, Assess, Support and Treat) centres" - is being organised as a single window system for notification of patients diagnosed in OPD/IPD from all departments of private facilities, linkage for public health actions and treatment adherence support. This is to assure standards of TB care for all TB patients diagnosed in the private sector as well as to enhance the participation and support of all private hospitals and professional organisations in TB elimination activities by forming a consortium.

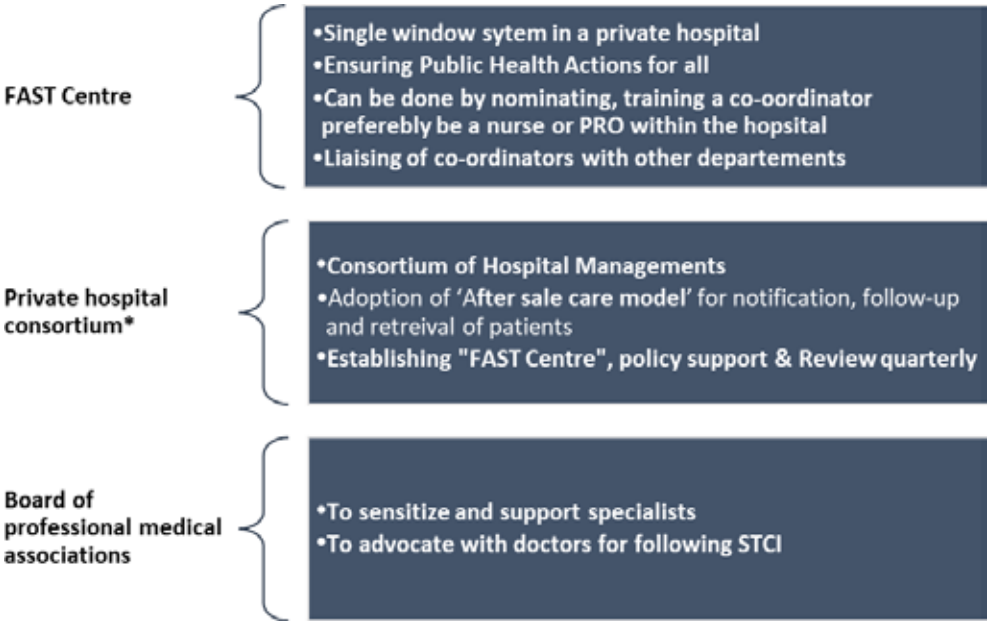


Figure 13.3: FAST – Unite to end TB in Tamil Nadu

Preliminary experience from Coimbatore:

The Consortium and the Coalition was formed under the Chairmanship of the District Collector in 2022. To date, 21 individual FAST centres have been established and in 2022, notification from FAST centres have been increased by 47% (755) compared to 2019 (512). The gain in non-FAST centres notification in 2022 was only 19% (725 in 2019 vs 866 in 2022). Compared to 2019, comorbidity testing for HIV and Diabetes has increased in these centres (HIV – 46% in 2019 and 93% in 2022; DM- 18% in 2019 and 94% in 2022). Contact tracing visits have increased about 6 times in these (732 in 2022 and 94 in 2019) FAST centres. In 2022, around 82% (616) of the patients received nutritional support via DBT NPY in these facilities which was higher than in the pre-FAST period (67.4% in 2019).

Way forward:

- Scaling up of FAST centres to all the hospitals in the entire district. STS/ TBHVs will be linked with FAST centres for routine supervisory visits and will be reviewed at the district level monthly.
- Private clinics/nursing homes without diagnostic capacity will be linked to the nearest HUB- FAST centre for referral as HUB and Spoke model.
- TB death audit review by the FAST hospitals in the monthly death audits.
- Annual felicitation of the best performing FAST centres by District Collector.

Rajasthan

i. PPIS-Patient provider incentive scheme

"Rajasthan, in the month of August '20 initiated a novel approach to engage private providers directly & named it as 'Patient Provider Incentive Scheme', which aims to engage & partner with all Private Health Facilities while ensuring quality diagnostics, drugs and treatment services to all patients. This novel approach laid due emphasis on PPP ~ Patient-Provider Partnership & is aimed to carve out a way for upcoming engagements with support from every touch point that patient interacts and avails service(s)."

Rajasthan State Patient Provider Incentive Scheme was launched on 15th August 2020, by Directorate Medical and Health Services Rajasthan in 26 districts. On 15th August 2021, PPIS was rolled-out in the remaining 8 districts, to complement private sector contribution in NTEP, thereby completing the coverage across all 34 districts of the State. In addition, for smooth and streamlined implementation of the same, operational guidelines were developed and revised in consensus with a diverse group of subject experts and stakeholders.

S No.	Indicator	Year 2022
1.	No of Private providers engaged	6764
2.	no of newly onboarded PPs	660
3.	No of TB notification	42717-Contributed to 25 % of total TB notifications by the state
4.	No of treatment initiated	97%

Table 13.2: Outcome of the initiative in Rajasthan

Innovations from States/UTs:

Tamil Nadu

i. Tamil Nadu Kaasonoi Erapilla Thittam (TN-KET)

Due to COVID-19 pandemic, the reported TB mortality rate in Tamil Nadu increased to 6.4% and 70% deaths were within two months (early deaths). To reduce TB deaths, starting April 2022, adults with very severe undernutrition, respiratory insufficiency or poor performance status were detected at diagnosis using a paper-based triage tool and prioritised immediately for referral, comprehensive assessment and inpatient

care (see Figure). 150 nodal inpatient care facilities (≈900 TB beds earmarked) were identified (with a nodal physician) and provided a case record form for comprehensive assessment of referral patients and an inpatient care guide. This initiative called as Tamil Nadu Kasanoi Erappila Thittam (TN-KET, meaning TB death-free initiative in Tamil) is jointly led by State TB cell and ICMR-National Institute of Epidemiology and implemented as a health system initiative by existing health workforce.

Outcome: Between April and December 2022, of 42 616 diagnosed, 39 708 (93%) were triaged and 4664 (11%) were eligible for referral. Of 4664 eligible, 3291 (71%) were referred, comprehensively assessed and confirmed as severely ill. Of 3291 confirmed, 3102 (94%) were admitted for inpatient care. The median time from diagnosis to triaging to admission was one day and admission duration was five days. In December 2022, the confirmation of severe illness among eligible people improved to 88%. The median admission duration increased to six days.

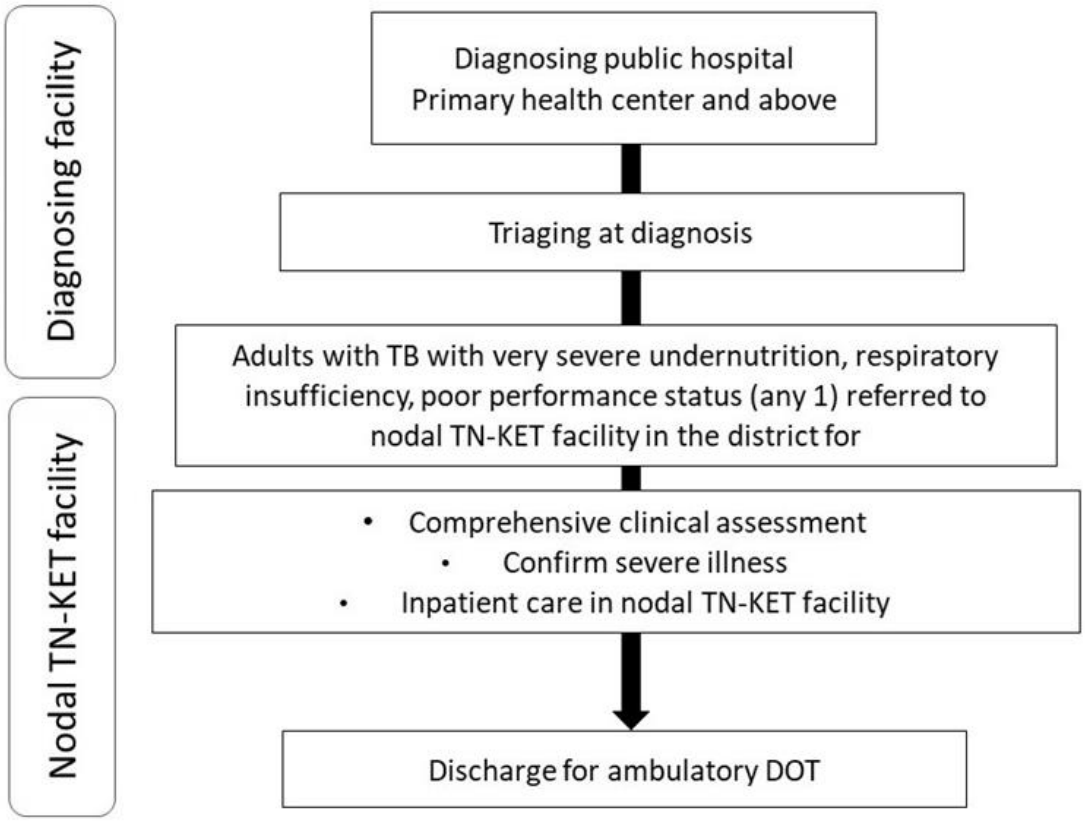


Figure 13.4: Brief on the inpatient support and the flow of services provided

Conclusion:

To conclude, in 2022, the TN-KET care cascade was set up with minimal losses and delays. 2023 will be the year to focus on quality inpatient care and reduction of TB mortality.

Voices from the field

Madhya Pradesh

i. Inspiring story of a TB-PLHIV patient from Madhya Pradesh:

Namaste, My name is Balram Dewda, residing in a small village "Bhatoni Parmar" of District Dewas. I have been diagnosed with HIV since my birth and on ART for the past 21 years. Despite being a CLHIV, I started my journey in a very positive way and in 2008 I learned about life & career related skills with support from UNICEF. After that I got the opportunity to represent my State Madhya Pradesh in a National workshop for creating awareness about HIV and removal of stigma associated with the disease and it was well appreciated by many along with an award for the efforts. This boosted my confidence and made me participate and provide support in many other social welfare awareness campaigns other than HIV. At a later point in life, I was diagnosed with TB. I completed my treatment successfully and also used this period as a learning opportunity to understand the disease with the help of the District TB Officer who kept all my spirit up & motivated throughout the treatment. This was a turning point in my life and after which I decided tha I will contribute more to this social problem and contribute as much as I can in "TB Harega-Desh Jeetega ''. I got trained as a "TB Champion''. I worked as a Community Volunteer during the SNC survey for District Dewas in 2021 and in 2022. During my entire journey I got the chance to be the part of many "State level Network/Committees as State level Network for PLHIV/AIDS Board" as member and "Helping Hand Network for TB survivals" as President. All these efforts give me the pleasure of being blessed as "Human in this life". I pledge to give all my contributions to help the society win against these two diseases.

Meghalaya

i. Fighting all odds- A journey of a TB Champion from a tribal state of Meghalaya

Mr. Andrew Marbaniang comes as a normal youngster, but he has braved Tuberculosis and is a proud TB champion today. Mr Andrew is now an active and trained TB Champion in the state where he is also engaged as a Master Trainer for other TB Champion. With his dedication towards TB elimination, he volunteered during the Sub National Certificate at East Khasi Hills District, for the year 2022-23.

Andrew Marbaniang comes from Mawlai Motsyiar and he belongs to a Khasi tribal community from East Khasi Hills District of

Meghalaya. Before having TB in 2014, he was studying B.A, final year. During that year, 3 of his family members underwent treatment for TB. Andrew was diagnosed with TB in 2015 and finished his treatment in 2017 while he was pursuing his master's degree.

As Andrew puts it 'My struggle with TB had been three long years of my sufferings. I began to lose weight and became fragile and thin. Many people who knew me were concerned about my weight loss but I was too afraid to tell them about my situation. Fearing they will cast me aside and judge me. I remember when I was in my final years of college and medically they recommended I should skip giving my final examination. The fact that I could be a potential carrier and medium to TB spread scared me. From my side I wanted to give the examination badly, the reason being that my family cannot bear my educational expenses if I must start college from the first year again. Since at that time we had some financial crises, such as having TB all my family members struggled to make ends meet".

Andrew further adds that when I reached out to seek help from the Principal of the college I went to at that time, Sir gave me an opportunity by making me write my final examination in a separate room away from the rest of the students. Somehow, I could barely pass the examination. And till this day I am thankful to the college and the Principal for helping me with my conditions. I am also thankful to all the doctors who took care of me and for giving me permission to attend and continue my master's degree in NEHU in 2016 along with the treatment. During my treatment, I was not the same individual as I was before TB happened to me! The stigma from society and people I am in contact with had made me withdraw inside my shell to block people out and shut everyone off. I gradually started isolating myself from my loved ones and everyone I knew. Being alone with only my thoughts to accompany me, I drifted further and further into depression. Thoughts like losing my loved ones was the biggest fear I had. That scenario left me restless.

My ambition when it comes to TB is to share with the people that stigmatisation is a curse to society since it has made many people back down/withdraw from the treatment. We should tell people they need to have patience with their treatment. To rely on and have trust in the treatment they are being given. From people's perspectives, they should be dedicated to the treatment given and they should have a mutual collaboration from both sides.

The message I want to share with those who are currently struggling with TB is that I and my family members survived TB so you can also easily survive with timely treatment. Thanks to all the medical help that came our way. I would like to recommend here through my experience that in India we have DOTS, one of the powerful tools that will put TB at bay, and together we can defeat it. And a kind reminder that whenever someone is diagnosed with tuberculosis one should not take it lightly. Finish the treatment and do take regular medication.

ii. Let's talk: A journey of a Treatment Supporter from a tribal village of Sampalgre East Garo Hills District

Meet Smti. Mithiline Sangma (39 years old), ASHA from Sampalgre village, Williamnagar, East Garo Hills District. She is a hardworking mother of two children and she has completed her education until class 10. She has been giving the best in her service as the ASHA Worker for a decade now since 2008. She has been working as a DOTs Supporter and supporting 22 TB patients for the last 15 years, which includes 19 basic TB patients and 3 previously treated case patients.

The great achievement as a Treatment Supporter is that there were no losses to follow up patients under her care. She has received all the incentives under her tenure, starting from the time it was paid Rs.250 from the year she joined until now.

As a Treatment Supporter, she makes sure that all her TB patients will get the best healthcare services the Government is offering under the NTEP programme. As she learnt that TB could cause death if it is not correctly and completely treated, she then ensured that the patient takes the TB drugs regularly, on schedule, for the full duration of the treatment. She also gives basic counselling and motivation to the TB patients motivating them for the complete course of treatment and interacting with the family members during home visit. Through her word of interaction, she motivates the patients and family members to not lose hope and thereby having faith in the health system, as TB is curable and treatable disease.

HARDSHIPS she has gone through in giving service to NTEP:

- Refusal by patients to come for check up, if they are too weak, she used to hire an auto and bring them herself to the hospital.
- When TB patients defaulted in taking the ATT halfway, she went for retrieving those patients minimum for about 5 times per TB patients. Sometimes the patients will refuse to give sputum samples for follow-up specially the last follow-up and she will go after those patients as well.

What motivates her? She likes taking care and giving the right medicines to TB patients under the TB programme

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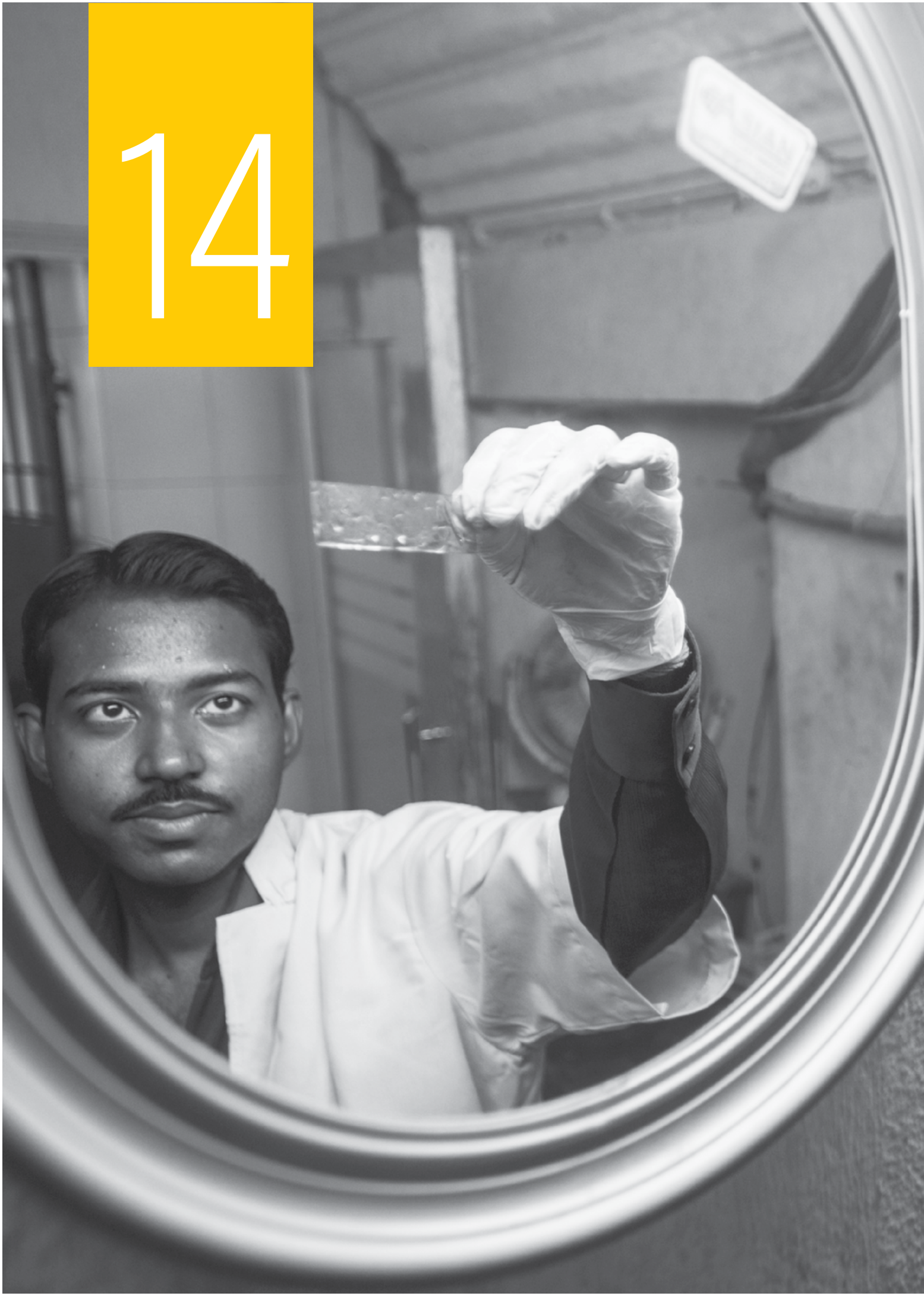
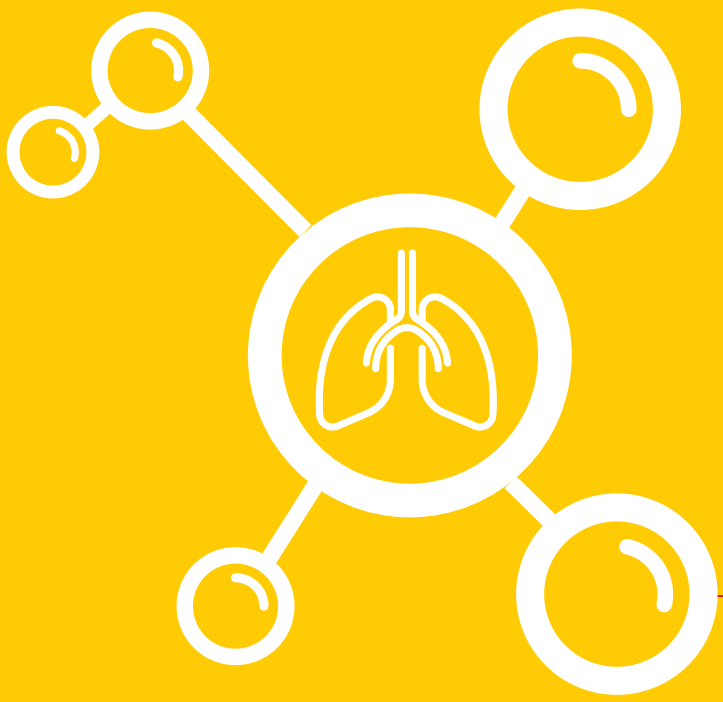




TB Research

Chapter 14

TB Research

The priority areas for research have been clearly defined under the programme in order to encourage Operational research and Clinical research. TThe programme also has an expert technical guidance and support mechanism to garner research in TB among the budding medical graduates and students of biology, biotechnology and social sciences. The details on research priorities of NTEP can be accessed from CTD website (tbcindia.gov.in).

Operational Research – Structure and functioning:

NTEP funds Operational Research (OR) under the guidance of a task force mechanism at State and National level. The global scientific evidence as well as the OR studies help bring-in periodical changes in policies, treatment algorithms and programme management practices. OR aims to improve the quality, effectiveness, efficiency, and accessibility of the elimination efforts and forms an integral part of the NTEP policy making and programme implementation.

NTEP collaborates with Medical colleges, National/State/Zonal OR Committees, Collaborative Research with departments/ organisations, NTEP commissioned Research and NGOs/ Development partners.

Proposals with a budget of above INR 5 lakhs are appraised to and approved through the NORC. Similarly, proposals with a budget between INR 2 lakhs to 5 lakhs are executed at Zonal OR Committee and those under INR 2 lakhs are dealt by the State OR Committee.

All clinical trials are to be submitted to Indian Council of Medical Research (ICMR).

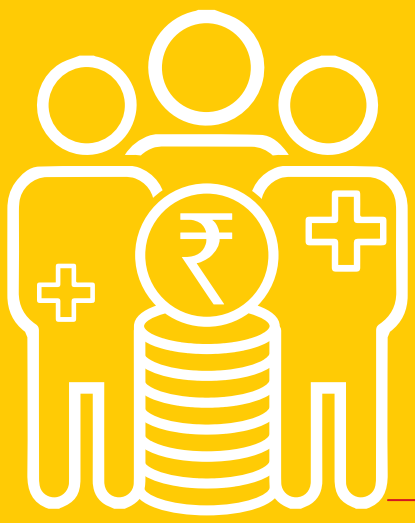
All studies with international collaboration are to be submitted at the Health Ministry's Screening Committee (HMSC). Some of the important research activities underway are:

AI Solutions and TB:

CTD has been involved in developing Artificial intelligence solutions for automated reading of Chest X-ray, cough sounds for TB detection, interpretation of Line probe assay (LPA). The AI models have been trained and validated internally. Validation of the cough sounds-based AI solution and LPA solution are currently under progress with ICMR.

BRICS:

A multi country research - IMPAC19TB titled "To determine the effect of TB on patient-level COVID-19 outcomes." is currently under progress.



Programme Financing

Chapter 15

Programme Financing

Introduction:

National TB Elimination Programme (NTEP) is a centrally sponsored scheme under NHM to implement the programme activities as envisaged under NSP 2017-25 as per NTEP guidelines.

The procedures for the financial management are being followed as per the manuals and guidelines available on the programme website (Financial Manual for NTEP). The financial management arrangements to account for and report on programme funds, includes both Domestic Budgetary Support (DBS) and External Aided Component (EAC). The arrangements are as follows:

Institutional arrangements:

CTD, being a part of the National Health Mission (NHM) holds the overall responsibility of the financial management of the programme. Similarly, at the State and district level, the State TB Cell and the District TB Centre are responsible respectively.

Budget: Programme expenditures are budgeted under the Demand for Grants of the MoHFW Flexible Pool for Communicable Diseases funding arrangement. These are reflected in two separate budget lines- General Component (GC) and Externally Aided Component (EAC).

a. **Funds flow and Releases**: The fund flow remains within the existing financial management system of the MoHFW, which operates through the centralized Pay and Accounts office. Release of funds to States is done in instalments through State Treasury.

b. **Sanctions & Approvals**: All procurements of commodities are processed by the Central Medical Services Society (CMSS), an autonomous society under MoHFW, Govt. of India approved by the Cabinet. All fund releases for commodity advances for approved contracts are routed through the Integrated Finance Division (IFD) and processed by the Drawing and Disbursing Office (DDO) and Pay and Accounts Office (PAO). All the programme expenditures follow the standard government systems of the PAO and are subject to control as per the General Financial Rules (GFR) of the Government of India. Payments are made through electronic funds transfer through treasury since the financial year 2014-2015.

c. **Accounting**: The accounting records for all payments are made against an approved budget. Budget lines are maintained by the Principal Accounts Officer and compiled by the Controller General of Accounts (CGA). The compiled monthly accounts are reconciled with the CTD record of transactions.

d. **Financial reporting**: A financial report is submitted by CTD to MoHFW and the donors like The Global Fund and World Bank on periodic intervals based on the compiled monthly accounts and CTD's own record of expenditures,

e. **External Audit**: The audits are being conducted as per the standard terms of reference. The audit reports are being made available to all donors as per the agreement. At State level audits are being done as per State NHM manual and guidance for audit by empanelled chartered accountancy firms. All the States are required to submit the annual audit report to CTD by 30th September.

Financial Performance of NTEP:

(Rs. In crores)

Description	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Budget Requested	2200.00	4115.00	3525.00	3554.00	3628.85	3088.87	20111.72
Budget Estimates/ approved Budget	1840.00	3140.00	3333.21	3109.93	3409.94	1666.33*	16499.41
Total Releases to States	871.36	907.65	870.81	629.71	545.78	**	3825.31
Total Expenditure	2759.44	2237.79	3130.11	3097.98	2086.82	693.23^	14005.37

excluding cash grant of Rs. 990.50 crores

***** Cash grant is being released by NHM directly under RCH Flexible Pool.***

^ expenditure as on 17.02.2023

Table15.1: Financial Performance of NTEP

Programme Implementation Planning

Introduction

NHM is the prime vehicle for achievement in architectural corrections of the National Health Policy 2017 and SDG-3 targets especially for primary health care, Universal Health Coverage and TB along with Maternal, Child & Adolescent health. The thrust of the NHM is to establish a fully functional, community-owned, decentralized health delivery system with inter-sectoral convergence at all levels.

The exercise of Programme Implementation Plan (PIP) under the NHM is a critical step in planning and resource allocation for key national and state health priorities and initiatives. Under the NHM, in order to reflect the requirements of the state a consolidated PIP is prepared.

NTEP is a flagship programme under NHM, will utilize the resources under NHM to strengthen TB care and elimination activities in accordance with the NSP. A district could plan all activities to achieve TB elimination targets based on the Detect-Treat-Prevent Build strategies under NSP can be described and budgeted in PIP.

NTEP is implemented through the general health system. The overall responsibility of implementing NTEP activities rests with the staff under general health services. The fund flow for NTEP activities is through state treasuries followed by State and District Health Societies. The Health Societies are vehicles for receipt of funds from Government of India (GoI) and implementation of the project activities.

Additional resources enabled for NTEP in 2022

To further strengthen the health infrastructure of the country, MoHFW has taken various initiatives recently. **The 15th Finance Commission Health Sector Grants (15th FC)** and the **Pradhan Mantri-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM)** are supporting the development of Critical Care Blocks (CCBs), Integrated Public Health Laboratories (IPHLs), Block Public Health Units (BPHUs), Health and Wellness Centres (HWC), diagnostic infrastructure, as well as some Human Resources for Health (HRH). NTEP is also integrated with these services and TB diagnostics and treatment care services are being enhanced by utilizing the grants available under these resources.

Major reforms in FY 2022-23 planning cycle

The exponential growth of NHM and simultaneous increase in the number of budget lines have led to a loss of flexibility. The detailed proposals lead to detailed approvals and FMRs rendering the newer changes in finance such as implementation of Single Nodal Agency and NFAMS very difficult. Given this background, in consultation with the States, this year a few reforms have been brought in the PIPs. The planning process was simplified. Also, a two-year PIP cycle was introduced. The discussions which were held during the National Programme Coordination Committee (NPCC) were more focused on planning and target setting for outputs and outcomes.

A. Two- year PIP & Key features of PIP 2022-24

In consultation with the States, The PIP from 2022 onwards, would be a two-Year PIP i.e. 2022-24. The work plan and the budget for two years were appraised and approved. If need be, a mid-term review at the end of first year would be carried out, either at the request of the Ministry or the State/UT concerned, to provide course correction in case of shifting of priorities.

B. Simplified PIP format: The planning and budget format in which the PIP is to be proposed is a simplified PIP matrix 11 (columns) x 7 (NTEP programme rows). While the States may need to plan in terms of inputs, the PIP at MoHFW would be appraised based on output for the proposed budget.

The following are the 7 NTEP programme rows to be proposed under NDCP 4 FMR code.

Pool	FMR Code	Programme/ Theme	S.no	Scheme/Activity
NDCP Flexi Pool	NDCP.4	National Tuberculosis Elimination Programme (NTEP)	73	Drug Sensitive TB (DSTB)
			74	Nikshay Poshan Yojana
			75	PPP
			76	Latent TB Infection (LTBI)
			77	Drug Resistant TB(DRTB)
			78	TB Harega Desh Jeetega Campaign
			79	State specific Initiatives and Innovations

Table15.2: NTEP related NDCP.4 FMR code

C. Focus on outputs and key deliverables:

The list of key deliverables under NTEP as mentioned below was finalised in consultation with the State/UT and The States and UTs were given reasonably ambitious deliverables based on situational analysis and gaps vis-à-vis the desired levels to meet the TB elimination targets. These key deliverables are being monitored periodically at all levels.

S No	Priority Key Deliverables (KDs) under NTEP
68	Total TB cases notified (Both public and private sectors)
69	Expansion of rapid molecular diagnostics for TB
70	State TB Score
71	Nikshay Poshan Yojana
72	Districts with TB free Status No. of districts proposed for # Bronze # Silver # Gold #TB Free district/City

Table15.3: The list of key deliverables

Introduction of NTEP Key Conditionalities:

Sl no	Components	Points
1	**Percentage of Districts achieving 90% of targets**	
	More than 81% of districts achieving 90% of targets	+5
	61% to 80% of districts achieving 90% of targets	+2.5
	Less than 60% of districts achieving 90% of targets	-2.5
	Less than 40% of districts achieving 90% of targets	-5
2	**Percentage of Districts achieving more than 85% of treatment success rate**	
	More than 81% of districts achieving 90% of targets	+5
	60% to 80% of districts achieving 90% of targets	+2.5
	Less than 60% of districts achieving 90% of targets	-2.5
	Less than 40% of districts achieving 90% of targets	-5

3	Percentage of AB-HWCs providing drugs to TB patients	
	More than 81% of AB-HWCs providing drugs to TB patients	+5
	61% to 80% of AB-HWCs providing drugs to TB patients	+2.5
	Less than 60% of AB-HWCs providing drugs to TB patients	-2.5
	Less than 40% of AB-HWCs providing drugs to TB patients	-5

Table15.4: NTEP Key Conditionality

Achievements in 2022

- A PIP guidance document to support States/UTs on Planning NTEP activities in alignment with NHM PIP template has been developed and disseminated.
- Rs. 6087.65 crores have been recommended with approval of the competent authority.

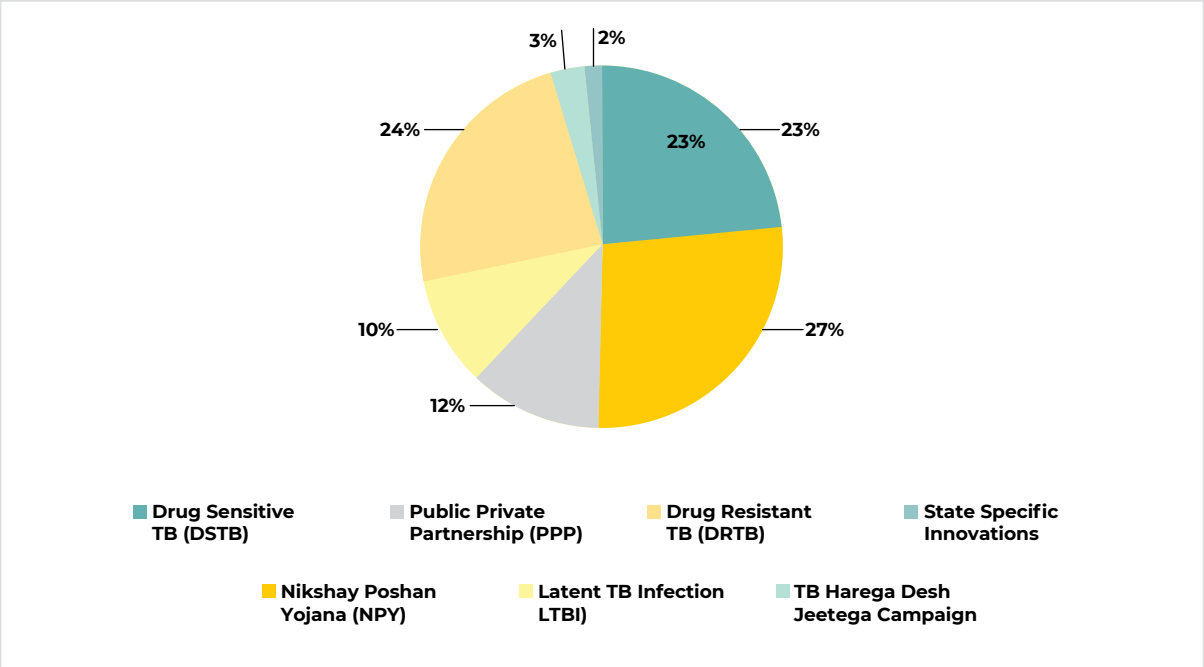


Figure 15.1: Achievements in 2022

World Bank - Programme towards Elimination of Tuberculosis (PTETB)

Introduction: With the goal of achieving SDGs related to TB by 2025, the Government of India has launched a robust response and is implementing NSP 2017-25 for TB Elimination. The MoHFW has availed a USD 400 million International Bank for Reconstruction and Development (IBRD) loan from World Bank to advance progress toward priority outcomes of the NSP 2017-25 and is implementing the "Programme Towards Elimination of Tuberculosis (PTETB)" project (PI 67523) (Loan no 8926).

IBRD financing is US$400 million or 30

percent of the total programme cost estimate of US$1.334 billion. The GOI will finance the remaining 70 percent. The full GOI request for IBRD financing for the period 2019 to 2025 is US$500 million and the remaining US$100 million requested by GOI will be considered by the World Bank by March 2022.

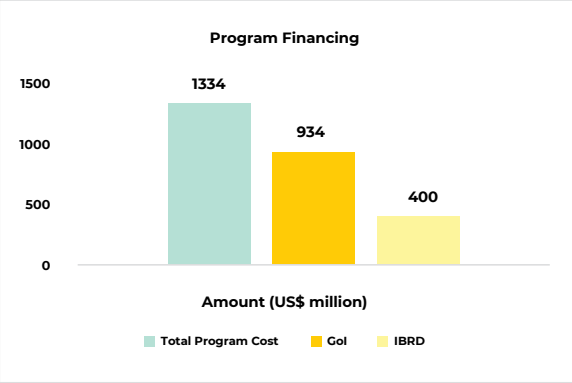


Figure 15.2: Programme financing

The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)

The Global Fund has been in partnership with India since 2003 and has disbursed more than USD 3 billion so far for addressing HIV, TB and Malaria in the country.

As part of the funding cycle for April, 2021-March, 2024, the Global Fund has allocated USD 280 million for TB. The grant is being implemented in a dual track funding mechanism through one government principal recipient i.e CTD for USD 200 million and four non-government principal recipients (William J Clinton Foundation, FIND India, The Union, PLAN India) for USD 80 million.

The CTD grant of USD 200 million is based on innovative funding modality of Payment for Results (PfR) which links the disbursement of funds directly to the achievement of specific programme results defined as DLIs (Disbursement Linked Indicators).

Disbursement Linked Indicators (DLI)	Allocation tied to DLIs for 3 years
DLI1: Number of cases with RR-TB and/or MDR-TB that began second-line treatment.	US$79.6 million
DLI 2: Treatment success rate of RR TB and/or MDR-TB: Percentage of cases with RR and/or MDR-TB successfully treated	US$39.9 million
DLI 3: Number of presumptive TB patients received molecular diagnostic test	US$80.4 million
Total Grant	**US$ 200 million**

Table15.5:Payment for results indicators for CTD grant (2021–2024)


TB
CHAMPION

Ni-kshay and Its Updates

Chapter 16

Ni-kshay and Its Updates

Ni-kshay, the digital ICT platform for TB management in India, is a case-based web based real time patient management system which offers the programme managers the ability to monitor their patient's real time. It captures all the components of service delivery for DS-TB and DR-TB patients in both public and private sectors.

Ni-kshay version 1 was established as a web enabled case-based tracking system in 2012 with the help of National Informatics Centre (NIC) and it was upgraded to Version 2 pan-India in 2018 into an Integrated Web and mobile based ICT solution with support from partner organizations.

The various unique functionalities of the Ni-kshay portal include:

1. Direct Benefit Transfers (DBT) through Ni-kshay PFMS interface.
2. Ability to follow-up patients from the presumptive TB stage
3. Transaction based information system, where the primary function

is to exchange information (diagnosis, adherence, Transfer, outcome, DBT etc) between various users logged into Ni-kshay.

4. Institutional level login decentralised to PHIs: Now all public and private health facilities have separate user credentials which they can use to manage their own patients.

5. Ni-kshay has an Android based mobile app for the programme staff as well as private sector users that increases performance and accessibility on mobile devices.

6. TB Aarogya Saathi is a citizen-facing Android based mobile app providing basic information about TB disease as well as serves as a TB Self-Screening and enrolment tool.

New Features in 2022:

Several new features were released in 2022, enabling 70,000 monthly users to fully leverage the digital ecosystem. A novel **Pradhan Mantri TB Mukt Bharat Abhiyaan** initiative was launched, wherein ~50000 citizens registered and committed to support nearly 1 million TB patients. Under **Ayushman Bharat Digital Mission**, ~50,000 health IDs, (a universal Digital Health record identifier) were generated. In addition to catering to 12 million TB patients, TB preventive therapy beneficiaries are now registered via the **TPT Module**. In line with the vision of having a unified ecosystem, Ni-kshay is now integrated with Ni-kshay Aushadi, wherein ~7,30,000 patients were dispensed medications. To empower NTEP for real-time programmatic monitoring, a **Strategic Operation Centre for TB** was launched at the Central TB Division. The citizen-facing application, TB Aarogya Sathi was downloaded by ~3,30,000 users, including >1,00,000 TB patients.

Compliance with Ayushman Bharat Digital (ABDM) Mission:

The feature to create a digitally secure Ayushman Bharat Health Account (ABHA - earlier known as Health ID) has been enabled within Ni-kshay thereby becoming compliant with Milestone 1 of ABDM. ABHA is a 14-digit number generated using Aadhaar-based OTP verification, after obtaining consent from the beneficiary. It can be used to uniquely identify individuals. With consent, it can also be used to access and share digital health records. The Programme Division will be achieving the Milestones 2 and 3 to become ABDM compliant by April 2023.

Compliance with Fast Healthcare Interoperability Resources (FHIR)

As part of Ayushman Bharat Digital Mission (ABDM) , Ni-kshay has complied with FHIR (Fast Healthcare Interoperability Resources) standards to support the integrated digital health infrastructure of the country. Ni-kshay now supports FHIR standards for two of the profiles required by ABDM - Prescription Report and Diagnostic Report which helps in interoperability within multiple FHIR Compliant systems.

Informant Module

Informant DBT module was introduced on Ni-kshay on the 3rd of November 2022 enabling staff/citizens to be eligible for the Informant incentive of Rs 500/- per referral of presumptive TB, if the presumptive individual is diagnosed as TB and notified in the public sector. This is an add-on to the existing feature in Ni-kshay for incentivising Private Sector facilities/practitioners for referral of a presumptive TB person who is diagnosed with TB.

This module allows Staff/Citizens to directly enrol those presumptive TB persons on Ni-kshay and avail the incentive if the persons is diagnosed with TB.

- Informant registration available in public domain, in addition to registration by staff.
- Bank details need to be added and validated in order to avail the informant incentive.
- Patients can be enrolled using informant logins.
- Ni-kshay will create Informant benefits for eligible beneficiaries who are registered as “Informant” and where the TB patient is diagnosed in a Public Peripheral Health Institution.
- Staff need to acknowledge/self-declare that he/she is not a salaried person under NTEP.

Dispensation Module

Ni-kshay has been integrated with Ni-kshay Aushadhi to streamline the process of dispensing medications. This integration allows health facility users to manage all their needs using just one system. With this integration, Ni-kshay Aushadhi will be used for tracking stock up to the TB unit level, while dispensation of drugs from PHI to patients will occur entirely through the Dispensation module in Ni-kshay. The stock levels managed in Ni-kshay Aushadhi will be displayed in the Ni-kshay dispensation module, via a closely linked two-way communication between Ni-kshay and Ni-kshay Aushadhi.

The dispensation of drugs from PHI to patients will take place entirely through

the Dispensation module in Ni-kshay, allowing patients to access drugs from any facility regardless of its current hierarchy. Using Ni-kshay for issuing drugs to patients eliminates the need for an external system login, simplifying the process. Patient consumption details will be tracked in Ni-kshay and can be shared with the Ni-kshay Aushadhi team as needed. If a patient returns drugs due to death, wrong dispensation, loss to follow-up, or an adverse drug reaction, the returned quantity will be immediately added back to the drug inventory in Ni-kshay and made available for dispensing to another patient. A total number of 28,84,366 for ~ 7,30,000 patients have been added through the module in 2022.

TB Champions

In order to facilitate the participation of TB Survivors in the mission to end TB, the TB Aarogya Sathi App contains links to courses on the iGOT platform which will help survivors to be trained as TB Champions. The training focuses on how they could contribute to ending TB. The app also allows users to mark their courses as complete after completion of the course on the iGOT portal. Upon completion of all the courses, the TB Champions would be able to report the details of the activities (patients visited/ meetings) conducted by them.

A few statistics of the uptake are as follows:

- Total Number of TB Champions enrolled: 1523.
- Total Number of Patients visited by the TB Champions: 1005.
- Total Number of meetings conducted: 488.

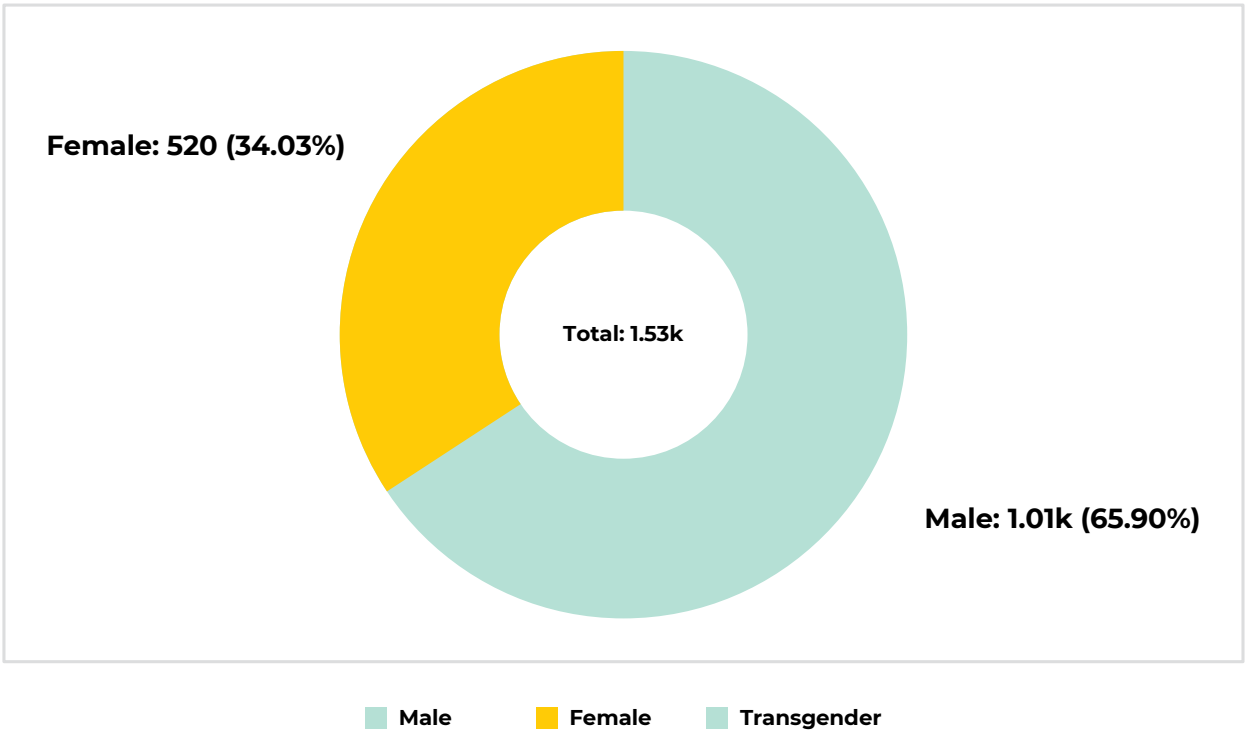


Figure 16.1: A few statistics of the uptake

TB Preventive Therapy Module

The TB Preventive Therapy (TPT) module was launched in India on World TB Day 2022. This Module will enable users to register and track the management of TPT Beneficiaries. Users can now add contacts of TB patients and high risk population (Additional options of 'Patient on immunosuppressants', 'Silicosis', 'Anti-TNF treatment', 'Dialysis', 'Transplantation' available) eligible for TPT across public and private sectors. Users would also be able to add Dispensation, Adherence, Comorbidity details for the TPT beneficiaries. For TB infection (TBI) Beneficiaries, adding Test Results is optional, users can "directly start treatment" in addition to the 'Add Test' button. Tests specific to diagnosis of TBI namely - TST and IGRA have been enabled in the diagnostic module. Treatment regimen and outcome options relevant to TPT Beneficiaries are made available.

Ni-kshay Reports & Data collection forms:

Ni-kshay reports has a variety of data entry modules, downloadable reports and registers which can be used by staff at all levels for patient as well as programme management. This includes details from all modules in the Ni-kshay ecosystem. Below are the key highlights of work done in this regard:

1. In the year 2022, we released 15 new Reports, 5 Registers, and 8 data entry modules within the Ni-kshay ecosystem about various thematic areas such as Dispensation, Adverse Drug Reactions, Contact Tracing, etc. PMDT Reports were revamped as well to include the Case concept with the release of Case Finding, Case Holding and Treatment Outcome reports. To keep up with the growth in data captured, the entire data processing pipeline went through an overhaul.

2. To ensure the linkage of all TB patients on treatment with a Ni-kshay Mitra for providing community support, the PMTBMBA module has been developed within Ni-kshay. It covers the entire lifecycle of community support from capturing Registrations of Donors, Linkage of Donors to Patients, and following up on the corpus and kind of support that is being provided.

3. To reduce the risk of poor outcomes in the patients who complete their treatment, it is necessary to ensure they are followed up periodically. The "Post Treatment Follow up module" was built on Ni-kshay through which the field staff can enter the patient-level details of the follow-ups that have been done. For ongoing monitoring and evaluation of this activity, related reports are now available.

4. As the number of HCWs is limited and the number of patients is growing, it becomes essential to prioritize the TB patients to be followed up. To identify such patients, a Differentiated TB Care module was developed to capture

certain additional fields for each patient about clinical and laboratory parameters. Based on the same, a Task list can be accessed by the HCW to follow up with the beneficiaries.

5. A Contract Management Tool and reports were developed within Ni-kshay for monthly data input. An interactive dashboard reflecting contract design, procurement, financial details, and performance against approved quality indicators was also launched.

6. ACSM monitoring forms have been included in the Program Management Report at the District level and State level.

7. ABHA details, Patient Consent, Dispensation, AERS, PMDT Revamp - Case Finding, Holding, Treatment Outcome

Ni-kshay Dashboards

The Ni-kshay Dashboards have been conceptualized, designed, and developed by the CTD as a tool to enable the NTEP Programme Administrators at Central, State and District level and the programme staff to review and monitor the various aspects of the programme performance in their respective geographies.

These dashboards help simplify the information and data using interactive, easy to consume visualizations. The dashboards are now also being developed as guided narratives to nudge the user into asking the right questions. As a part of this endeavour, the below dashboards are available:

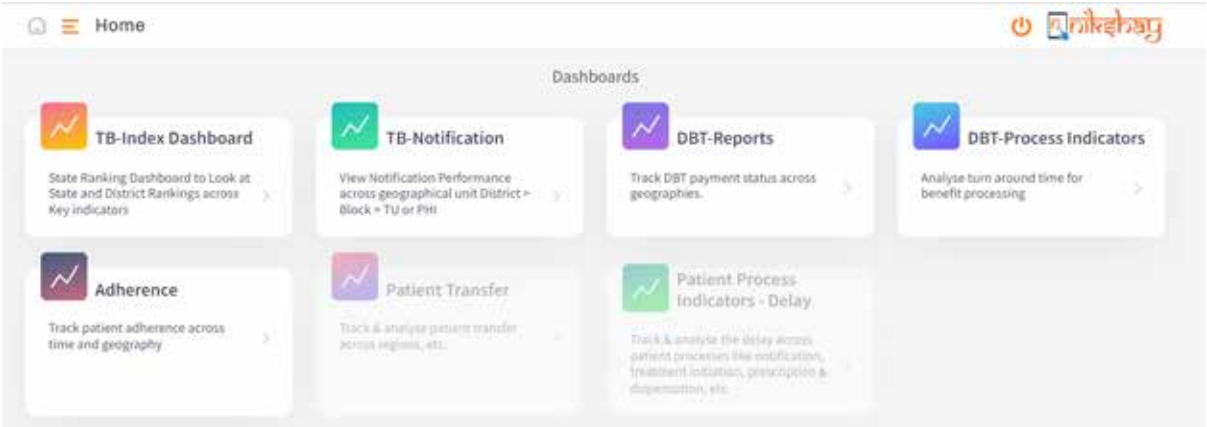


Figure 16.2: Ni-kshay Dashboards

The following dashboards are available on Ni-kshay:

1. TB Index Dashboard: To look at State and District rankings across key indicators.

2. TB Notification: To look at notification performance across geographies and cohorts.

3. DBT Reports: Tracking DBT Payment status across geographies.

4. DBT Process Indicators: To analyze the turnaround time for benefits processing.
5. Adherence: Tracking Patient Adherence across time and geographies.
6. TPT Dashboard: To monitor the TPT care cascade.

The TB Ni-kshay Dashboards have contributed to rapid digital transformation, adoption in the TB ecosystem. More than 300 users access the Ni-kshay Dashboards daily. More than 33 STO and 560 DTO officers use it regularly. Several training sessions have taken place throughout the year to train the users to use the dashboards. An email marketing campaign along with advertisements on the Ni-kshay portal is also being used to increase the usage of the dashboards. The next step to drive up the usage is to target TU users.

Ni-kshay in numbers

Figure 16.3: Ni-kshay Metrics

STRATEGIC OPERATION CENTRE FOR TB

A Strategic Operation centre for TB is set up within the CTD to aid Programme administrators plan and strategize the operations to accomplish the programme objectives. The Strategic Operations Centre for TB currently exists a physical space in the CTD. The space includes interactive dashboards that provide a comprehensive picture of the programme and aims to answer 4 key questions to its users: (i) 'What's going on in the programme', through a live visual display of key TB campaigns; (ii) 'Where we're at in terms of achievement against targets', through a birds-eye view of 8 key programmatic indicators; (iii) 'What are the key bottlenecks to the achievement of targets', through drill down views; and (iv) 'What we need to do to strategically reach elimination goals', through TB incidence and mortality modelling. Thus the war room provides a bird's eye view of key indicators with the ability to delve deeper into geographies and chronology of events, along with the power to simulate probabilistic scenarios. This would support the programme to ask the right questions and make the right decisions.

Ni-kshay Analytics

Ni-kshay Analytics - a modern, open-source data exploration and visualization platform that enables self-serve analytics, was established to democratize data and further empower decision makers. It reduces dependency on other members for sharing data and thus faster information access. The system is a central, web-based platform, has a Cloud-native architecture and is specifically designed for scale.

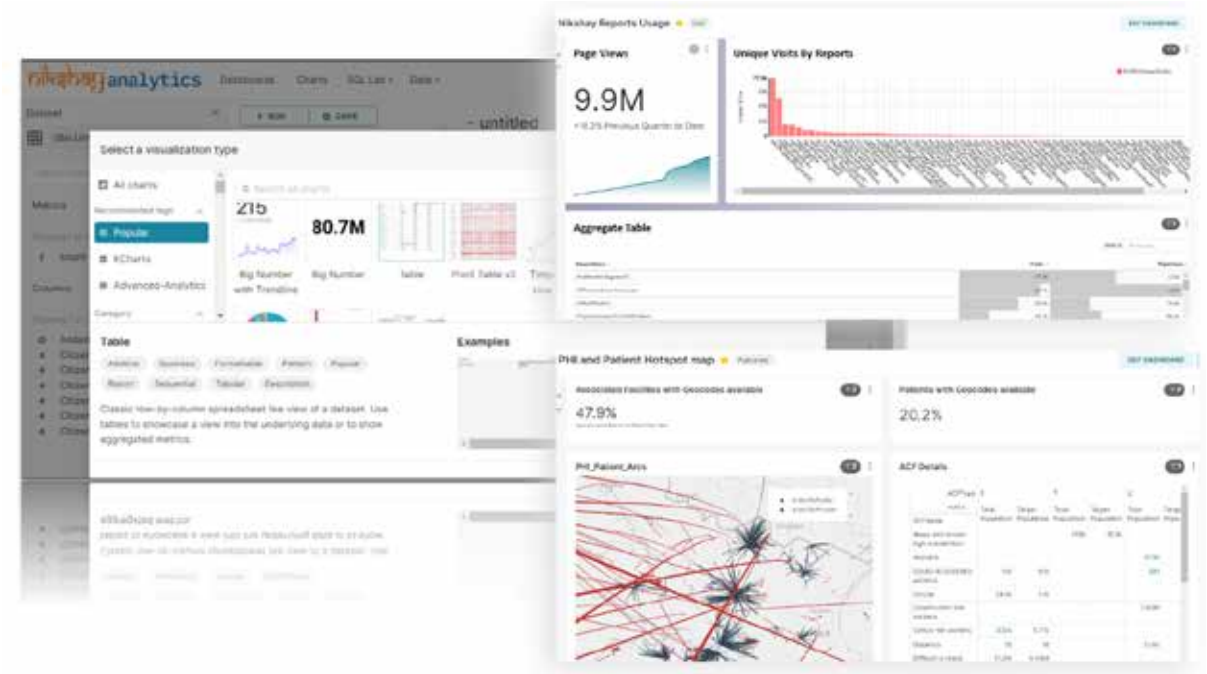


Figure 16.4: Ni-kshay analytics

17

Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)

Chapter 17

Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)

The Ministry of Health and Family Welfare (MoHFW) implements the National TB Elimination Programme (NTEP) with the goal to achieve SDGs related to TB by 2025, five years ahead of the global targets of 2030. The challenge of tuberculosis requires a **multi-sectoral response** to address the social determinants such as under-nutrition, living and working conditions, and increase the access to diagnostic and treatment services.

In this regard, it becomes imperative to **strengthen collaboration with the community and the existing societal institutions which can play a critical role in filling gaps** and addressing social determinants, thereby contributing to achievement of the national goal of TB Mukt Bharat.

To galvanize efforts towards TB elimination, Her Excellency, **Smt. Droupadi Murmu, Hon'ble President of India on 9th September 2022 launched "Pradhan Mantri TB Mukt Bharat Abhiyan "** for community support to TB patients to provide people with TB and their families

increased nutritional, diagnostic, and vocational support, delivered within the community. As per the clarion call of the Hon'ble Prime Minister of India, Shri Narendra Modi at Delhi End TB Summit in March 2018 to eliminate TB by 2025, five years ahead of Sustainable Development Goal, PMTBMBA initiative aims to bring together people from all backgrounds into a **'Jan Andolan'** and escalate the progress toward TB elimination.

Figure 17.1: PMTBMBA – Virtual Launch Event on 9th Sept 2022

More than 2.25 lakh people witnessed the live proceeding across the country

The three-fold objectives of the initiative are:

- Provide additional patient support to improve treatment outcome of TB patients
- Augment community involvement in meeting India's commitment to end TB
- Leverage Corporate Social Responsibility (CSR) activities

The expected outputs of the initiative are:

1. This initiative will increase the active involvement of society in the fight against tuberculosis

2. This activity aims at increasing awareness among the public regarding tuberculosis

3. Involvement of the community in supporting the treatment cascade shall also help in the reduction of stigma

4. Provision of additional support to the TB patient shall also result in the reduction of the out-of-pocket expenditure for the family of the TB patient

5. Ultimately improved nutrition for the TB patient shall result in better treatment outcomes

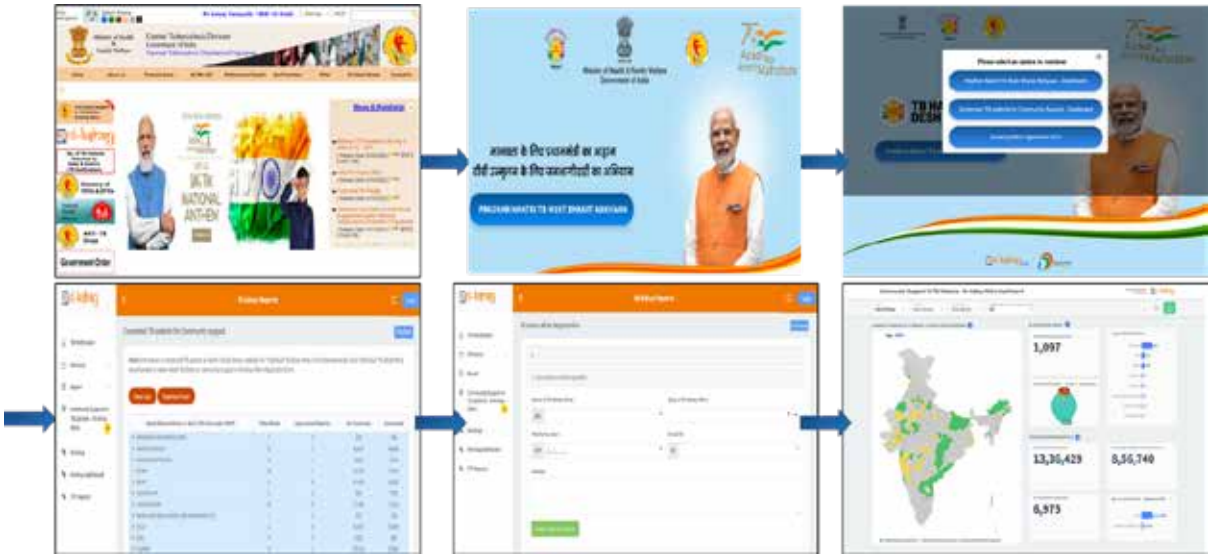


Figure 17.2: Portal for Ni-kshay 2.0

Initiatives taken by MoHFW for effective implementation of PMTBMBA:

Following actions have been taken by Central TB Division, Ministry of Health and Family Welfare:

Weekly meetings with STOs, Medical Officers & DEOs posted at Governor's/LG's office to monitor progress and ensure effective implementation of PMTBMBA activities. In addition, a regular district-wise review with State/UTs is being undertaken to address any challenges being faced.

Supportive supervision visits to the low performing States of Bihar, Jharkhand, Chhattisgarh, Odisha, West Bengal, Kerala and Maharashtra have been made. Visits to other State/UTs are being planned regularly.

Regular calls to VIP Ni-kshay Mitras like Hon'ble Governors, Ministers, MPs, MLAs, Senior Officers with an aim to take their inputs/feedback/suggestions on the PMTBMBA initiative and seek guidance to scale up the Programme and understand the interventions being taken up by them regarding PMTBMBA.

Functional HR arrangement in the office of Hon'ble Governor/Lt Governor's, consisting of a medical officer and a support staff, to monitor and accelerate PMTBMBA initiative efforts has been made in 29 State/UTs. Remaining States are also in process.

Ayushman Bharat Health & Wellness Centres (HWCs)/PHI have been integrated in the PMTBMBA initiative and Ni-kshay Mitras are being encouraged to distribute Ni-kshay Poshan kits at AB-HWCs in the first week of every month.

In order to encourage participation of various Officers/ Staff Associations in Ministries / Departments of Govt. of India / States in PMTBMBA initiative by adopting TB Patients, the Cabinet Secretary had written a letter to all Secretaries of Government of India. The Secretary (H&FW) has written to all States and UTs, requesting the same.

Coordination with Universities & Colleges to support the PMTBMBA initiative in response to official communication from

the Secretary, UGC - So far, 102 Universities/ colleges have come forward to support 2320 TB patients.

Coordination with Indian Red Cross Society to support PMTBMBA initiative - So far, 16 States' Red Cross Societies have come forward and adopted approx. 10,000 TB patients.

In order to rope in various business associations like CII, FICCI, ASSOCHAM, NATHEALTH, etc, meetings and orientation sessions have been conducted by CTD officials.

Meeting with various service delivery organizations like Akshaya Patra Foundation, Big Basket, Zomato, D-Mart, NGOs, etc for supporting States in distribution of food baskets to TB patients.

Achievements so far:

Tremendous response has been seen for this initiative since its launch. As on 1st January 2023, more than 58,000 Ni-kshay Mitras (donors) have come forward and committed to support more than 9 lakh consented TB patients.

Status	As on 1st January 2023
TB patients on treatment	13.21 lakh
TB patients consented to receive community support	9.73 lakh
No. of Ni-kshay Mitra registered	58,799
Ni-kshay Mitra agreed upon	44,744
Commitment by Ni-kshay Mitra for TB Patients	9.13 lakh
TB Patients supported (Linked to) by Ni-kshay Mitra	8.74 lakh

Table 17.1: Progress update of PMTBMBA

Enormous participation from all States/UTs has been seen with Political leaders, Ministers, MP's, Elected Representatives, Government officials, NGOs and big associations coming forward and conducting multiple events to spread awareness about the PMTBMBA initiative, encourage Ni-kshay Mitras and reassure TB patients.

Figure 17.3: A 13-year-old girl became a Ni-kshay Mitra in Katni district, Madhya Pradesh and supported one TB patient from her own savings

Various Models: Distribution of food baskets

Model 1

In this model, District TB Officer-DTO will provide the list of consented TB Patients to identified Mart. Mart will provide prescribed nutritional kit to the patients. Ni-kshya Mitra (Donor) will pay to identified Mart.

Model 2

In this model, DTO will provide the list of consented TB Patients to identified agency/third party (NGO,C-SO,etc). Agency will procure and deliver prescribed nutritional kit to the patients. Ni-kshay Mitra (Donor) will provide monetary support to the agency

Model 3

In this model, DTO will engage the Ni-kshay Mitra and provide them with the anonymized list of consented TB patients. Ni-kshay Mitra (Donor) will directly provide the kit to the patients.

Model 3

In this model, the State/District team coordinate with PDS system to deliver the food baskets to concerned PHCs, ABHWCs. The food basket can be distributed directly to patients

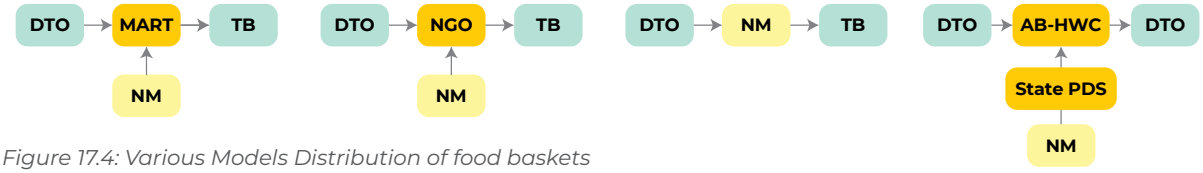


Figure 17.4: Various Models Distribution of food baskets

Ni-kshay Mitra Certificates: Each donor/Ni-kshay Mitra receives a certificate as a token of appreciation. A total of **64,926** certificates have been issued to the registered Ni-kshay Mitras; individuals, corporates, Cooperatives, political/elected representatives, institutions, etc

Figure 17.5: Certificate template for Ni-kshay Mitras

Way Forward:

The Pradhan Mantri TB Mukt Bharat Abhiyan (PMTBMBA) is the first of its kind model in the world which has received enormous support from the community to End TB in India. PMTBMBA involves the community at large and helps in reducing stigma and providing a stigma free life for the affected and afflicted TB patients. For ensuring a sustainable and long-term model, following steps are being taken by CTD/MoHFW:

All State/UTs are requested to observe '**Ni-kshay Diwas'** on a fixed date (as decided by the respective State/UT) every month at every Ayushman Bharat-Health & Wellness Centre (AB-HWC) and facilitate implementation of PMTBMBA activities in the community through AB-HWCs on Ni-kshay Diwas (A detailed Guidance document shared with all State/UTs)

Review template shared with all districts regarding PMTBMBA indicators and the plan of action being undertaken by all districts to reduce the pendencies & increase the actual distribution of nutrition kits.

Through daily virtual meetings, guiding State/UTs to approach various potential Ni-kshay Mitras and encourage them to adopt TB patients so that there is continuum of the programme. States may approach Gram Panchayats, Sarpanches, local MLAs, religious & faith-based organizations and even schools wherein the students may be given assignments on community engagement and PMTBMBA so that there is increased awareness among the families.

Regular field visit to State/UTs- to handhold, assess the progress, identify critical gaps, provide real time solutions, and conduct advocacy meetings with administrative heads at the district and State-level.

Success stories from the field:

Gujarat:

Models of delivery of support under "Pradhan Mantri TB Mukht Bharat Abhiyaan)

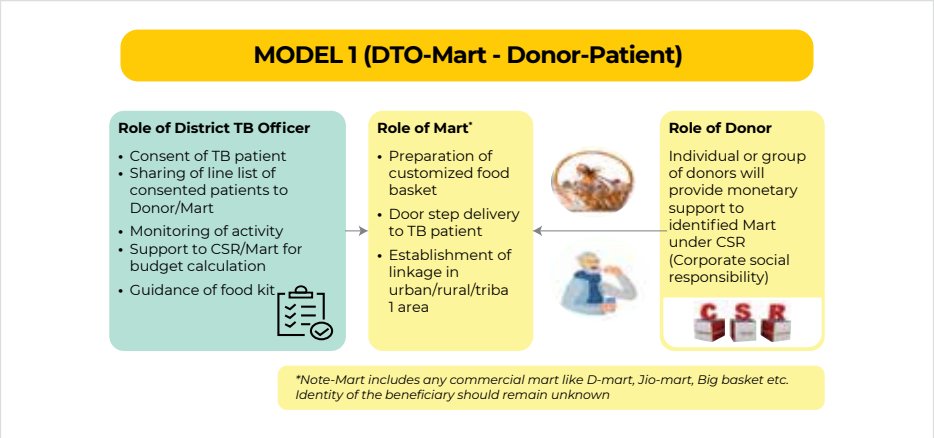
Four models of implementation and delivery was piloted and scaled up across the State under the "PMTBMBA", flagship scheme of NTEP.

Rationale:

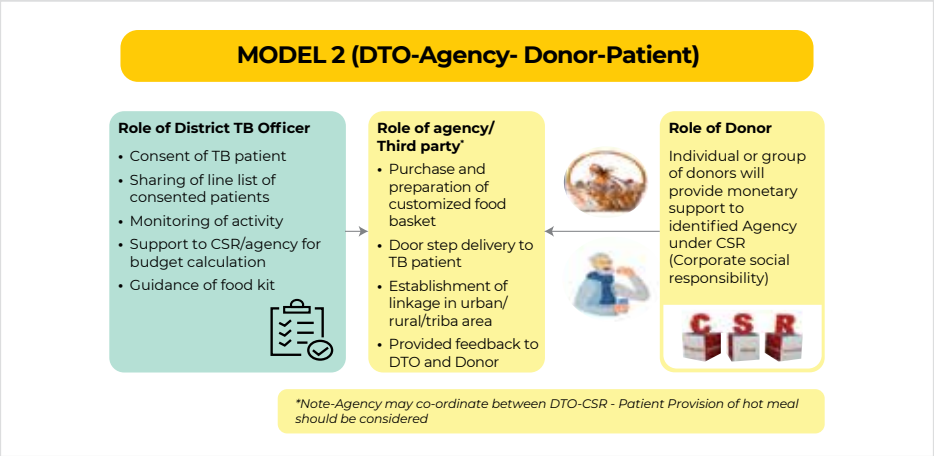
There were potential donors who just wanted to support. So, the State developed few innovative models to engage such Nikshay Mitras through involvement of an interface agency/collector kitty fund and agency/mart will devise and distribute kits to patients of marts or NGOs.

Gujarat Models for PMTBMBA

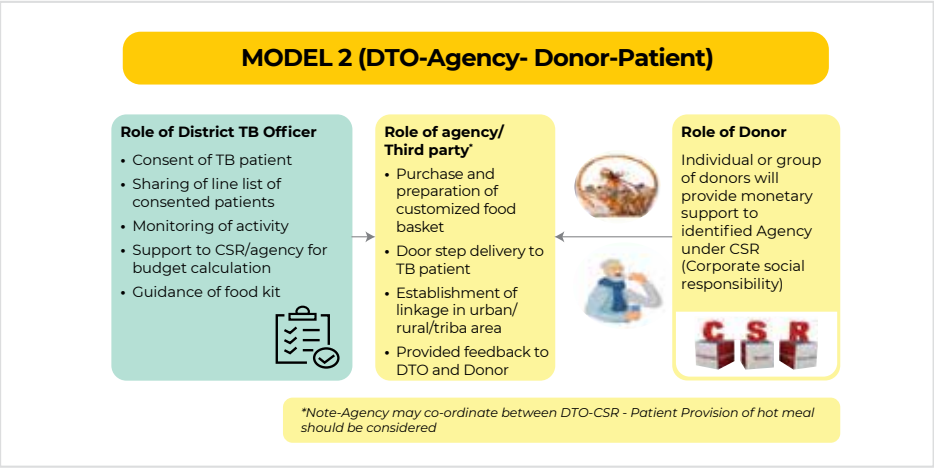
Model 1 (DTO-Mart –Donor-Patient)



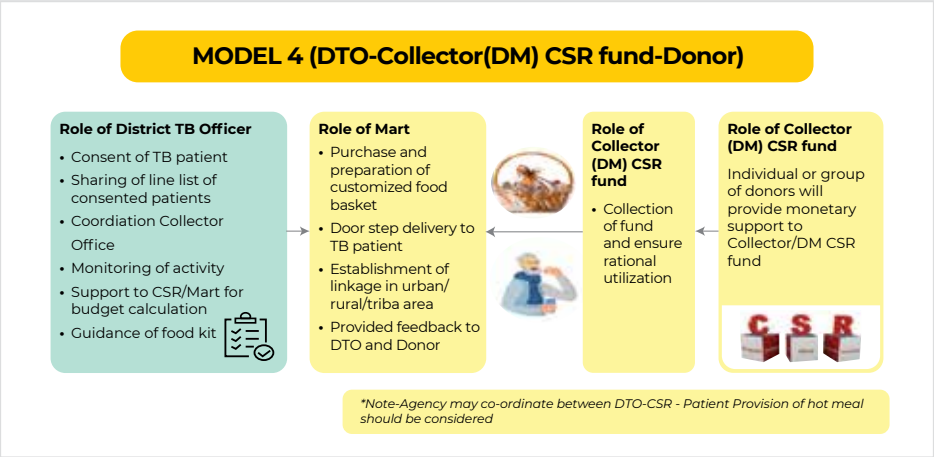
Model 2 (DTO-Agency-Donor-Patient)



Model 3 (DTO-Donor - Patient)



Model 4 (DTO-Collector(DM) CSR fund-Donor)



Outcomes: More than 1800 NM have been registered across the State with 85% TB Patients providing consent and more than 50 thousand TB Patients had received the support.

Uttar Pradesh:

Scaling up of UP Governor's Initiative of TB Patients adoption

Problem statement:

Inadequate nutritional and social support for TB patients leads to an unfavourable treatment outcome.

Intervention:

In August 2019, Smt. Anandiben Patel, Hon'ble Governor of Uttar Pradesh, initiated adoption of paediatric TB patients which was followed by the Raj Bhawan staff adopting 21 TB-affected children. Under this intervention, the adopting agencies/individuals ensured treatment completion, adequate nutrition, and social support for the adopted patient through periodic home visits and regular awareness activities.The aim was to provide not just nutritional support to patients but also emotional and social support to their families and to act as a bridge between health system and TB patients.

Impact:

The treatment success rate among the adopted patient group improved to 90%, compared to 84% of the total TB patients for 2020 and 2021 within the state of UP. This initiative received an overwhelming response from various state/local adoption agencies, resulting

in the adoption of TB patients beyond the paediatric age group. Currently, TB patients of all age groups and treatment types and duration are adopted under the initiative.

The honourable President launched this initiative at the national level under "Pradhan Mantri TB Mukt Bharat Abhiyaan" in September 2022. Since August 2019, 245210 patients have been adopted and received nutritional and social support, out of which 73833 were provided nutritional support in the year 2022 alone, which is the highest in the country. Furthermore, the state has the highest number of Ni-kshay Mitra linked to TB patients, at 18067.

Way forward:

To ensure regular and quality distribution of nutritional support to the adopted TB Patients, the State TB Cell has planned to collaborate with State's Rural Livelihood Mission, involving the self-help groups for preparing and delivering the nutritional kits at the ground level.

Figure 17.6: Paediatric TB Patient being adopted by Honourable Governor, Smt. Anandi Ben Patel

Figure 17.7: TB Patient being adopted by Honourable Deputy CM and Health Minister, Shri Brijesh Pathak

Uttarakhand: "One Ni-kshay Mitra – One Patient" Initiative under Pradhan Mantri TB Mukt Bharat Abhiyaan (PMTBMBA)

Under the leadership of the Hon'ble Health Minister, the State launched an initiative of "One Ni-kshay Mitra – One Patient", wherein one Ni-kshay Mitra is allotted to only one patient, which can go to a maximum 3. This initiative would help make the patient adoption initiative more sustainable where the Ni-kshay Mitra will provide nutritional support and can connect one on one with the TB patient to provide psycho-social support as well.

Delhi:

Involvement of State Government Departments under PMTBMBA

Delhi was one of the first States to involve State government departments in PMTBMBA. Initially, the Delhi State Industries and Infrastructure Development Corporation (DSIIDC) donated Rs 1 crore thereby adopting 2060 patients. The procurement and distribution were entrusted to Delhi State Civil Supplies Corporation (DSCSC) (Figure), which volunteered to carry out the whole implementation on a No-Profit-No-Loss basis and created a dedicated bank account on their official website to enable government employees as well as the public to donate money under PMTBMBA. The website had embedded the link for registration of Ni-kshay Mitra on Ni-kshay 2.0 before completing the payment, thereby ensuring all Ni-kshay Mitras are registered.

Subsequently, the Indian Red Cross Society (IRCS), National Capital Territory Branch, came forward and adopted 583 patients and created a dedicated bank account for donations. Using this platform, Pragati Power Corporation Ltd and Delhi Transco Limited donated a total of 9.41 crores, adopting a total of 22660 patients. The first tranche of food baskets from these 2 donors have been distributed in the month of February 2023.

These initiatives have led to one of the largest numbers of food baskets/kits delivered to TB patients. The State NTEP Team is in discussion with other agencies for finalisation for similar involvement under PMTBMBA.

Delhi: TB Mukt Delhi Mobile App

A dedicated mobile-based application **"TB Mukt Delhi"** along with a web portal and a monitoring dashboard was developed by NTEP Delhi in collaboration with the National Informatics Centre (NIC), Delhi, and the Department of IT, GNCTD (Government of the National Capital Territory of Delhi) with support from the Office of Director General Health Services, GNCTD. The NTEP staff, using the PHI-specific logins, can capture and upload photographs of the distribution of food baskets/kits to all eligible TB patients. The app has both online and offline upload capabilities. The subsequent versions along with updates of the application will include Feedback Module, Grievance Registration Module, general TB awareness information, details of nearby health facilities and a detailed map of Delhi State to help NTEP staff address the area overlap between multiple NTEP Districts. The application was officially launched by the Hon'ble LG of Delhi Shri Vinai Kumar Saxena on 29.10.22 at Nehru Nagar Chest Clinic.

ANNEXURES

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1.1 PRESUMPTIVE TB CASES EXAMINATION

State	Population - 2022 (in lakhs)	Presumptive TB Cases examination (per 1,00,000)						Number Needed to Test by technology	
		Number examined by technology					Rate (per lakh population)		
		Microscopy	CBNAAT	Truenat	NAAT Total, n(% of total tested)	Total		Microscopy	NAAT
Andaman & Nicobar Islands	3.92	12922	655	2498	3153 (20)	16075	4,103	37	8
Andhra Pradesh	528.95	268507	85515	452134	537649 (67)	806156	1,524	69	12
Arunachal Pradesh	16.96	13973	1227	8101	9328 (40)	23301	1,374	12	6
Assam	359.12	240718	25470	17983	43453 (15)	284171	791	15	3
Bihar	1294.71	277032	49621	58657	108278 (28)	385310	298	11	3
Chandigarh	12.08	16036	8051	3836	11887 (43)	27923	2,312	11	5
Chhattisgarh	303.59	376330	17396	93642	111038 (23)	487368	1,605	23	6
Dadra and Nagar Haveli and Daman and Diu	8.54	20989	3003	1148	4151 (17)	25140	2,945	43	5
Delhi	195.59	141369	37057	30125	67182 (32)	208551	1,066	8	2
Goa	15.60	0	8637	11891	20528 (100)	20528	1,316	NA	15
Gujarat	713.84	1153624	14500	93760	108260 (9)	1261884	1,768	23	2
Haryana	303.77	225791	40995	30037	71032 (24)	296823	977	12	2
Himachal Pradesh	76.41	203939	41963	57280	99243 (33)	303182	3,968	40	9
Jammu & Kashmir	144.16	261642	24500	31877	56377 (18)	318019	2,206	81	8
Jharkhand	409.47	259420	34410	74023	108433 (29)	367853	898	12	4
Karnataka	722.51	792818	1227	177763	178990 (18)	971808	1,345	36	10
Kerala	346.78	197577	79986	118249	198235 (50)	395812	1,141	38	14
Ladakh	2.57	1860	7985	685	8670 (82)	10530	4,099	26	26
Lakshadweep	0.67	0	235	2388	2623 (100)	2623	3,933	NA	114
Madhya Pradesh	870.00	1042693	60549	206403	266952 (20)	1309645	1,505	20	3
Maharashtra	1278.86	1611742	216494	114529	331023 (17)	1942765	1,519	34	4
Manipur	35.43	9351	5632	2940	8572 (48)	17923	506	19	7

State	Population - 2022 (in lakhs)	Presumptive TB Cases examination (per 1,00,000)						Number Needed to Test by technology	
		Number examined by technology					Rate (per lakh population)		
		Microscopy	CBNAAT	Truenat	NAAT Total, n(% of total tested)	Total		Microscopy	NAAT
Meghalaya	38.05	15142	10588	25621	36209 (71)	51351	1,350	17	11
Mizoram	13.00	9126	5434	1155	6589 (42)	15715	1,209	29	7
Nagaland	20.90	14538	7642	1784	9426 (39)	23964	1,147	12	5
Odisha	473.01	1108411	66729	50157	116886 (10)	1225297	2,590	44	4
Puducherry	15.53	16732	8607	1112	9719 (37)	26451	1,703	12	6
Punjab	304.32	173651	26778	28685	55463 (24)	229114	753	10	2
Rajasthan	809.78	985143	84237	77464	161701 (14)	1146844	1,416	20	2
Sikkim	6.68	7706	7337	1720	9057 (54)	16763	2,510	65	9
Tamil Nadu	774.50	1531264	89535	153105	242640 (14)	1773904	2,290	29	4
Telangana	403.50	268776	95872	209693	305565 (53)	574341	1,423	25	8
Tripura	40.21	44353	4007	6272	10279 (19)	54632	1,359	28	4
Uttar Pradesh	2398.03	1433276	121141	366197	487338 (25)	1920614	801	12	2
Uttarakhand	119.72	59796	6263	39782	46045 (44)	105841	884	8	3
West Bengal	1014.61	1118664	71371	197207	268578 (19)	1387242	1,367	31	4
INDIA	**14075.37**	**1,39,14,911**	**13,70,649**	**27,49,903**	**4120552 (23)**	**18035463**	**1,281**	**22**	**4**

State/UT	Target TB patients expected to be notified			TB patients notified, n (% achievement against target)			TB case notification rate (per 1,00,000)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	520	10	530	510 (98.1)	24 (240)	534 (100.8)	130.2	6.1	136.3
Andhra Pradesh	85000	30000	115000	62075 (73)	30112 (100.4)	92187 (80.2)	117.4	56.9	174.3
Arunachal Pradesh	3450	50	3500	2722 (78.9)	141 (282)	2863 (81.8)	160.5	8.3	168.8
Assam	50200	10800	61000	36801 (73.3)	11021 (102)	47822 (78.4)	102.5	30.7	133.2
Bihar	80000	120000	200000	79008 (98.8)	82157 (68.5)	161165 (80.6)	61	63.5	124.5
Chandigarh	6450	750	7200	5664 (87.8)	402 (53.6)	6066 (84.3)	468.9	33.3	502.2
Chhattisgarh	37000	18000	55000	26801 (72.4)	11720 (65.1)	38521 (70)	88.3	38.6	126.9
Dadra And Nagar Haveli And Daman And Diu	980	120	1100	1294 (132)	105 (87.5)	1399 (127.2)	151.6	12.3	163.9
Delhi	70000	30000	100000	76966 (110)	29765 (99.2)	106731 (106.7)	393.5	152.2	545.7
Goa	1850	550	2400	1614 (87.2)	477 (86.7)	2091 (87.1)	103.5	30.6	134
Gujarat	90000	60000	150000	100949 (112.2)	50963 (84.9)	151912 (101.3)	141.4	71.4	212.8
Haryana	60000	34000	94000	51231 (85.4)	24607 (72.4)	75838 (80.7)	168.6	81	249.7
Himachal Pradesh	15000	1500	16500	14457 (96.4)	1632 (108.8)	16089 (97.5)	189.2	21.4	210.6
Jammu & Kashmir	12100	2400	14500	10022 (82.8)	1782 (74.3)	11804 (81.4)	69.5	12.4	81.9
Jharkhand	46700	23300	70000	43683 (93.5)	13637 (58.5)	57320 (81.9)	106.7	33.3	140
Karnataka	65000	35000	100000	59510 (91.6)	20906 (59.7)	80416 (80.4)	82.4	28.9	111.3
Kerala	18000	6000	24000	16766 (93.1)	6622 (110.4)	23388 (97.5)	48.3	19.1	67.4
Ladakh	340	10	350	311 (91.5)	9 (90)	320 (91.4)	121.1	3.5	124.6

State/UT	Target TB patients expected to be notified			TB patients notified, n (% achievement against target)			TB case notification rate (per 1,00,000)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Lakshadweep	20	0	20	11 (55)	0 (NA)	11 (55)	16.5	0	16.5
Madhya Pradesh	150550	94450	245000	130830 (86.9)	55463 (58.7)	186293 (76)	150.4	63.8	214.1
Maharashtra	155000	115000	270000	132531 (85.5)	101574 (88.3)	234105 (86.7)	103.6	79.4	183.1
Manipur	2000	1000	3000	1634 (81.7)	920 (92)	2554 (85.1)	46.1	26	72.1
Meghalaya	5000	1000	6000	4063 (81.3)	926 (92.6)	4989 (83.2)	106.8	24.3	131.1
Mizoram	2550	450	3000	1697 (66.5)	388 (86.2)	2085 (69.5)	130.6	29.9	160.4
Nagaland	4250	750	5000	3360 (79.1)	765 (102)	4125 (82.5)	160.8	36.6	197.4
Odisha	55000	10000	65000	50393 (91.6)	9979 (99.8)	60372 (92.9)	106.5	21.1	127.6
Puducherry	4800	100	4900	3732 (77.8)	103 (103)	3835 (78.3)	240.3	6.6	246.9
Punjab	55000	15000	70000	43344 (78.8)	11806 (78.7)	55150 (78.8)	142.4	38.8	181.2
Rajasthan	117000	63000	180000	126675 (108.3)	42847 (68)	169522 (94.2)	156.4	52.9	209.3
Sikkim	1380	120	1500	1286 (93.2)	109 (90.8)	1395 (93)	192.6	16.3	208.9
Tamil Nadu	88600	31400	120000	71896 (81.1)	21983 (70)	93879 (78.2)	92.8	28.4	121.2
Telangana	56000	24000	80000	52304 (93.4)	20637 (86)	72941 (91.2)	129.6	51.1	180.8
Tripura	3260	240	3500	2865 (87.9)	159 (66.3)	3024 (86.4)	71.3	4	75.2
Uttar Pradesh	364000	186000	550000	373262 (102.5)	149588 (80.4)	522850 (95.1)	155.7	62.4	218
Uttarakhand	19600	8400	28000	21215 (108.2)	6338 (75.5)	27553 (98.4)	177.2	52.9	230.1
West Bengal	101660	28340	130000	76945 (75.7)	24027 (84.8)	100972 (77.7)	75.8	23.7	99.5
India	**1828260**	**951740**	**2780000**	**1688427 (92.4)**	**733694 (77.1)**	**2422121 (87.1)**	**120**	**52.1**	**172.1**

State	Type of Case, n (% of notified)			Site of disease, n (% of notified)		Diagnostic Test, n (% of notified)			
	New	Previously Treated	PMDT	Pulmonary	Extra Pulmonary	Microscopy	Molecular tests	Chest X-ray	Others
Andaman & Nicobar Islands	461 (86.3)	37 (6.9)	36 (6.7)	369 (69.1)	165 (30.9)	147 (21.6)	196 (28.8)	87 (12.8)	251 (36.9)
Andhra Pradesh	81132 (88)	8769 (9.5)	2286 (2.5)	70426 (76.4)	21761 (23.6)	3908 (4.1)	37040 (38.5)	30923 (32.2)	24224 (25.2)
Arunachal Pradesh	2484 (86.8)	245 (8.6)	134 (4.7)	1866 (65.2)	997 (34.8)	622 (17.8)	888 (25.5)	390 (11.2)	1585 (45.5)
Assam	43313 (90.6)	3621 (7.6)	888 (1.9)	36937 (77.2)	10885 (22.8)	14841 (23.7)	6014 (9.6)	14821 (23.7)	26987 (43.1)
Bihar	147718 (91.7)	10083 (6.3)	3364 (2.1)	135151 (83.9)	26014 (16.1)	19121 (10.6)	25897 (14.4)	90754 (50.3)	44514 (24.7)
Chandigarh	5380 (88.7)	563 (9.3)	123 (2)	3276 (54)	2790 (46)	1412 (18.9)	1572 (21)	337 (4.5)	4157 (55.6)
Chhattisgarh	35300 (91.6)	2706 (7)	515 (1.3)	27309 (70.9)	11212 (29.1)	7483 (16.3)	9125 (19.8)	13400 (29.1)	15996 (34.8)
Dadra and Nagar Haveli and Daman and Diu	1225 (87.6)	141 (10.1)	33 (2.4)	810 (57.9)	589 (42.1)	261 (15.7)	301 (18.1)	214 (12.9)	884 (53.3)
Delhi	90648 (84.9)	11965 (11.2)	4118 (3.9)	68173 (63.9)	38558 (36.1)	26942 (20.2)	24868 (18.6)	21218 (15.9)	60645 (45.4)
Goa	1852 (88.6)	162 (7.7)	77 (3.7)	1297 (62)	794 (38)	23 (1.1)	1050 (49.7)	221 (10.5)	820 (38.8)
Gujarat	123738 (81.5)	24809 (16.3)	3365 (2.2)	115534 (76.1)	36378 (23.9)	43009 (22.1)	9891 (5.1)	68207 (35)	73814 (37.9)
Haryana	65939 (86.9)	8233 (10.9)	1666 (2.2)	55872 (73.7)	19966 (26.3)	17642 (18.9)	23526 (25.2)	13342 (14.3)	38970 (41.7)
Himachal Pradesh	13943 (86.7)	1760 (10.9)	386 (2.4)	11042 (68.6)	5047 (31.4)	5092 (24)	5567 (26.3)	1069 (5)	9453 (44.6)
Jammu & Kashmir	10536 (89.3)	1111 (9.4)	157 (1.3)	7485 (63.4)	4319 (36.6)	2492 (17.4)	3203 (22.4)	2070 (14.5)	6531 (45.7)
Jharkhand	53034 (92.5)	3438 (6)	848 (1.5)	50004 (87.2)	7316 (12.8)	15278 (21)	14151 (19.5)	21861 (30.1)	21308 (29.4)
Karnataka	69836 (86.8)	7853 (9.8)	2727 (3.4)	58761 (73.1)	21655 (26.9)	16389 (16.9)	29779 (30.8)	12808 (13.2)	37829 (39.1)

State	Type of Case, n (% of notified)			Site of disease, n (% of notified)		Diagnostic Test, n (% of notified)			
	New	Previously Treated	PMDT	Pulmonary	Extra Pulmonary	Microscopy	Molecular tests	Chest X-ray	Others
Kerala	21588 (92.3)	1384 (5.9)	416 (1.8)	15476 (66.2)	7912 (33.8)	4228 (15.3)	10234 (37.1)	1229 (4.5)	11925 (43.2)
Ladakh	264 (82.5)	54 (16.9)	2 (0.6)	235 (73.4)	85 (26.6)	52 (14)	179 (48.1)	10 (2.7)	131 (35.2)
Lakshadweep	9 (81.8)	1 (9.1)	1 (9.1)	11 (100)	0 (0)	0 (0)	11 (100)	0 (0)	0 (0)
Madhya Pradesh	164091 (88.1)	19099 (10.3)	3103 (1.7)	150155 (80.6)	36138 (19.4)	37773 (16.9)	29212 (13)	86284 (38.5)	70797 (31.6)
Maharashtra	203419 (86.9)	18764 (8)	11922 (5.1)	156476 (66.8)	77629 (33.2)	30747 (11.6)	55559 (21)	82786 (31.3)	95760 (36.2)
Manipur	2331 (91.3)	165 (6.5)	58 (2.3)	1891 (74)	663 (26)	491 (16.1)	1076 (35.3)	286 (9.4)	1192 (39.1)
Meghalaya	4304 (86.3)	396 (7.9)	289 (5.8)	3562 (71.4)	1427 (28.6)	573 (10.3)	2545 (45.8)	616 (11.1)	1828 (32.9)
Mizoram	1778 (85.3)	204 (9.8)	103 (4.9)	1233 (59.1)	852 (40.9)	175 (7.7)	1070 (47.3)	97 (4.3)	918 (40.6)
Nagaland	3660 (88.7)	372 (9)	93 (2.3)	2769 (67.1)	1356 (32.9)	976 (19.1)	1265 (24.8)	738 (14.5)	2122 (41.6)
Odisha	56026 (92.8)	3865 (6.4)	481 (0.8)	44769 (74.2)	15603 (25.8)	21221 (26)	9090 (11.1)	15469 (19)	35813 (43.9)
Puducherry	3244 (84.6)	229 (6)	362 (9.4)	2696 (70.3)	1139 (29.7)	1334 (25.8)	798 (15.4)	107 (2.1)	2930 (56.7)
Punjab	49022 (88.9)	5394 (9.8)	734 (1.3)	40593 (73.6)	14557 (26.4)	16371 (22.9)	12681 (17.7)	12265 (17.1)	30204 (42.2)
Rajasthan	146481 (86.4)	19299 (11.4)	3742 (2.2)	136440 (80.5)	33082 (19.5)	43209 (20.3)	36316 (17.1)	59309 (27.9)	73897 (34.7)
Sikkim	1081 (77.5)	104 (7.5)	210 (15.1)	909 (65.2)	486 (34.8)	44 (3.1)	844 (58.7)	182 (12.6)	369 (25.6)
Tamil Nadu	82944 (88.4)	8579 (9.1)	2356 (2.5)	71165 (75.8)	22714 (24.2)	36283 (27.9)	19462 (15)	15022 (11.5)	59395 (45.6)
Telangana	64606 (88.6)	6613 (9.1)	1722 (2.4)	55437 (76)	17504 (24)	9186 (11.2)	27431 (33.4)	20884 (25.4)	24626 (30)
Tripura	2743 (90.7)	253 (8.4)	28 (0.9)	2467 (81.6)	557 (18.4)	1015 (25.1)	933 (23.1)	370 (9.2)	1721 (42.6)

1.4 PAEDIATRIC TB CASES NOTIFICATION & TREATMENT INITIATION STATUS

State	Paediatric TB patients notified (Based On Diagnosing PHI)			Net paediatric TB patients* notified (Based On Current PHI)			Paediatric Patients initiated on treatment, n (%)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	18	1	19	19	0	19	19 (100)	0 (NA)	19 (100)
Andhra Pradesh	1347	1333	2680	1711	997	2708	1684 (98.4)	993 (99.6)	2677 (98.9)
Arunachal Pradesh	256	19	275	289	1	290	282 (97.6)	1 (100)	283 (97.6)
Assam	992	433	1425	1231	182	1413	1161 (94.3)	173 (95.1)	1334 (94.4)
Bihar	4434	10778	15212	4428	11024	15452	4072 (92)	11002 (99.8)	15074 (97.6)
Chandigarh	496	18	514	277	4	281	260 (93.9)	3 (75)	263 (93.6)
Chhattisgarh	935	974	1909	1155	759	1914	1136 (98.4)	752 (99.1)	1888 (98.6)
Dadra and Nagar Haveli and Daman and Diu	76	8	84	53	7	60	52 (98.1)	7 (100)	59 (98.3)
Delhi	7867	2258	10125	8122	838	8960	7419 (91.3)	730 (87.1)	8149 (90.9)
Goa	37	13	50	44	8	52	42 (95.5)	8 (100)	50 (96.2)
Gujarat	3201	3972	7173	3985	2962	6947	3874 (97.2)	2947 (99.5)	6821 (98.2)
Haryana	2596	1477	4073	3265	1058	4323	3053 (93.5)	998 (94.3)	4051 (93.7)
Himachal Pradesh	468	50	518	523	13	536	498 (95.2)	13 (100)	511 (95.3)
Jammu & Kashmir	511	89	600	581	28	609	543 (93.5)	28 (100)	571 (93.8)
Jharkhand	1299	1478	2777	1556	1284	2840	1489 (95.7)	1279 (99.6)	2768 (97.5)
Karnataka	1924	1690	3614	2501	1047	3548	2421 (96.8)	1015 (96.9)	3436 (96.8)
Kerala	480	409	889	737	158	895	707 (95.9)	148 (93.7)	855 (95.5)
Ladakh	8	0	8	8	0	8	8 (100)	0 (NA)	8 (100)

State	Paediatric TB patients notified (Based On Diagnosing PHI)			Net paediatric TB patients* notified (Based On Current PHI)			Paediatric Patients initiated on treatment, n (%)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Lakshadweep	1	0	1	1	0	1	1 (100)	0 (NA)	1 (100)
Madhya Pradesh	9212	5450	14662	10512	4290	14802	10220 (97.2)	4255 (99.2)	14475 (97.8)
Maharashtra	6280	6626	12906	7710	5065	12775	7368 (95.6)	4898 (96.7)	12266 (96)
Manipur	61	24	85	77	9	86	69 (89.6)	4 (44.4)	73 (84.9)
Meghalaya	197	113	310	250	59	309	219 (87.6)	59 (100)	278 (90)
Mizoram	123	23	146	145	1	146	143 (98.6)	1 (100)	144 (98.6)
Nagaland	169	32	201	187	12	199	186 (99.5)	12 (100)	198 (99.5)
Odisha	1694	584	2278	1932	337	2269	1877 (97.2)	323 (95.8)	2200 (97)
Puducherry	101	6	107	52		52	47 (90.4)	(NA)	47 (90.4)
Punjab	2121	680	2801	2522	451	2973	2367 (93.9)	422 (93.6)	2789 (93.8)
Rajasthan	4723	3700	8423	5218	3222	8440	4908 (94.1)	3166 (98.3)	8074 (95.7)
Sikkim	42	8	50	46	3	49	44 (95.7)	3 (100)	47 (95.9)
Tamil Nadu	1765	1651	3416	2060	1397	3457	1996 (96.9)	1375 (98.4)	3371 (97.5)
Telangana	1344	675	2019	1543	494	2037	1513 (98.1)	484 (98)	1997 (98)
Tripura	50	3	53	57	1	58	55 (96.5)	1 (100)	56 (96.6)
Uttar Pradesh	17873	14402	32275	21935	11113	33048	20751 (94.6)	10957 (98.6)	31708 (95.9)
Uttarakhand	998	359	1357	1081	236	1317	1061 (98.1)	233 (98.7)	1294 (98.3)
West Bengal	1895	991	2886	2653	208	2861	2557 (96.4)	194 (93.3)	2751 (96.2)
India	**75594**	**60327**	**135921**	**88466**	**47268**	**135734**	**84102 (95.1)**	**46484 (98.3)**	**130586 (96.2)**

1.5 TRIBAL TB CASES NOTIFICATION & TREATMENT INITIATION STATUS

State	Number of Districts mapped as Tribal district (partly or wholly)	Tribal TB patients notified (Based On Diagnosing PHI)			Net Tribal TB patients* notified (Based On Current PHI)			Tribal TB Patients initiated on treatment, n (% of notified)		
		Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	1	95	0	95	92	0	92	91 (98.9)	0 (NA)	91 (98.9)
Andhra Pradesh	8	9284	3015	12299	10054	2494	12548	9866 (98.1)	2489 (99.8)	12355 (98.5)
Arunachal Pradesh	15	2711	141	2852	2998	6	3004	2861 (95.4)	3 (50)	2864 (95.3)
Assam	7	7374	1044	8418	7595	946	8541	7336 (96.6)	884 (93.4)	8220 (96.2)
Bihar	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Chandigarh	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Chhattisgarh	20	11630	1774	13404	12899	1473	14372	12656 (98.1)	1467 (99.6)	14123 (98.3)
Dadra and Nagar Haveli and Daman and Diu	1	916	73	989	505	61	566	496 (98.2)	61 (100)	557 (98.4)
Delhi	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Goa	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Gujarat	14	18177	5852	24029	20642	3873	24515	20002 (96.9)	3850 (99.4)	23852 (97.3)
Haryana	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Himachal Pradesh	3	207	0	207	448	0	448	432 (96.4)	0 (NA)	432 (96.4)
Jammu & Kashmir	1	13	2	15	71	2	73	67 (94.4)	2 (100)	69 (94.5)
Jharkhand	15	24708	7463	32171	26271	6117	32388	25228 (96)	6025 (98.5)	31253 (96.5)
Karnataka	3	1715	290	2005	2651	125	2776	2579 (97.3)	122 (97.6)	2701 (97.3)
Kerala	4	383	108	491	895	14	909	870 (97.2)	13 (92.9)	883 (97.1)
Ladakh	2	303	9	312	319	11	330	303 (95)	9 (81.8)	312 (94.5)
Lakshadweep	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)

State	Number of Districts mapped as Tribal district (partly or wholly)	Tribal TB patients notified (Based On Diagnosing PHI)			Net Tribal TB patients* notified (Based On Current PHI)			Tribal TB Patients initiated on treatment, n (% of notified)		
		Public	Private	Total	Public	Private	Total	Public	Private	Total
Madhya Pradesh	20	23282	5017	28299	25685	4362	30047	24806 (96.6)	4271 (97.9)	29077 (96.8)
Maharashtra	16	14502	3954	18456	17638	2810	20448	17057 (96.7)	2751 (97.9)	19808 (96.9)
Manipur	6	587	139	726	945	53	998	840 (88.9)	48 (90.6)	888 (89)
Meghalaya	7	4057	926	4983	4641	322	4963	4274 (92.1)	314 (97.5)	4588 (92.4)
Mizoram	8	1692	388	2080	2086	20	2106	2049 (98.2)	20 (100)	2069 (98.2)
Nagaland	11	3358	762	4120	3805	373	4178	3764 (98.9)	371 (99.5)	4135 (99)
Odisha	13	20280	3223	23503	23658	813	24471	23225 (98.2)	772 (95)	23997 (98.1)
Puducherry	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Punjab	1	0	12	12	0	0	0	0 (NA)	0 (NA)	0 (NA)
Rajasthan	8	15204	2640	17844	18650	2156	20806	17622 (94.5)	2045 (94.9)	19667 (94.5)
Sikkim	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
Tamil Nadu	7	201	6	207	555	0	555	546 (98.4)	0 (NA)	546 (98.4)
Telangana	8	5506	1929	7435	6512	1559	8071	6292 (96.6)	1534 (98.4)	7826 (97)
Tripura	2	318	0	318	288	0	288	278 (96.5)	0 (NA)	278 (96.5)
Uttar Pradesh	4	3558	283	3841	3936	381	4317	3788 (96.2)	371 (97.4)	4159 (96.3)
Uttarakhand	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
West Bengal	0	0	0	0	0	0	0	0 (NA)	0 (NA)	0 (NA)
India	**205**	**170061**	**39050**	**209111**	**193839**	**27971**	**221810**	**187328 (96.6)**	**27422 (98)**	**214750 (96.8)**

1.6 GENDER DISAGGREGATED DATA ON TOTAL TB NOTIFICATION, PAEDIATRIC TB NOTIFICATION AND TREATMENT INITIATION

State	TB Cases Notified			Paediatric TB Cases Notified, n (% of total notified)			Total TB Cases initiated on treatment, n (% of total notified)		
	Male	Female	Trans Gender	Male	Female	Trans Gender	Male	Female	Trans Gender
Andaman & Nicobar Islands	336	211	0	7 (2.1)	12 (5.7)	NA	319 (94.9)	204 (96.7)	0 (NA)
Andhra Pradesh	60460	32592	40	1307 (2.2)	1400 (4.3)	1 (2.5)	59560 (98.5)	32191 (98.8)	39 (97.5)
Arunachal Pradesh	1646	1367	1	132 (8)	158 (11.6)	(0)	1574 (95.6)	1298 (95)	1 (100)
Assam	31823	16120	20	676 (2.1)	735 (4.6)	2 (10)	30217 (95)	15382 (95.4)	17 (85)
Bihar	100334	65409	78	9103 (9.1)	6333 (9.7)	6 (7.7)	95530 (95.2)	62823 (96)	74 (94.9)
Chandigarh	2033	1750	3	122 (6)	158 (9)	1 (33.3)	1893 (93.1)	1669 (95.4)	3 (100)
Chhattisgarh	24381	14346	14	997 (4.1)	917 (6.4)	(0)	23903 (98)	14105 (98.3)	13 (92.9)
Dadra and Nagar Haveli and Daman and Diu	530	391	0	26 (4.9)	34 (8.7)	NA	521 (98.3)	388 (99.2)	0 (NA)
Delhi	44850	43312	62	3487 (7.8)	5468 (12.6)	3 (4.8)	39677 (88.5)	39285 (90.7)	55 (88.7)
Goa	1235	834	1	21 (1.7)	31 (3.7)	(0)	1193 (96.6)	814 (97.6)	1 (100)
Gujarat	93866	54204	55	3544 (3.8)	3400 (6.3)	2 (3.6)	91491 (97.5)	53163 (98.1)	54 (98.2)
Haryana	46604	32003	33	1888 (4.1)	2431 (7.6)	3 (9.1)	42968 (92.2)	30022 (93.8)	30 (90.9)
Himachal Pradesh	10258	6243	4	244 (2.4)	290 (4.6)	2 (50)	9929 (96.8)	6057 (97)	4 (100)
Jammu & Kashmir	7039	4915	2	295 (4.2)	312 (6.3)	1 (50)	6659 (94.6)	4682 (95.3)	2 (100)
Jharkhand	39592	18853	23	1546 (3.9)	1291 (6.8)	3 (13)	38000 (96)	18149 (96.3)	23 (100)
Karnataka	50058	29053	30	1786 (3.6)	1762 (6.1)	(0)	48355 (96.6)	28089 (96.7)	28 (93.3)
Kerala	15235	8289	5	436 (2.9)	459 (5.5)	(0)	14563 (95.6)	7961 (96)	4 (80)
Ladakh	173	172	0	3 (1.7)	5 (2.9)	NA	164 (94.8)	160 (93)	0 (NA)
Lakshadweep	13	9	0	(0)	1 (11.1)	NA	13 (100)	9 (100)	0 (NA)

State	TB Cases Notified			Paediatric TB Cases Notified, n (% of total notified)			Total TB Cases initiated on treatment, n (% of total notified)		
	Male	Female	Trans Gender	Male	Female	Trans Gender	Male	Female	Trans Gender
Madhya Pradesh	116954	71896	56	8041 (6.9)	6739 (9.4)	3 (5.4)	112246 (96)	69637 (96.9)	54 (96.4)
Maharashtra	125242	104336	118	5494 (4.4)	7274 (7)	3 (2.5)	119259 (95.2)	100002 (95.8)	109 (92.4)
Manipur	1623	997	1	38 (2.3)	48 (4.8)	(0)	1363 (84)	821 (82.3)	0 (0)
Meghalaya	2928	2032	1	143 (4.9)	166 (8.2)	(0)	2727 (93.1)	1875 (92.3)	0 (0)
Mizoram	1219	887	0	63 (5.2)	83 (9.4)	NA	1192 (97.8)	877 (98.9)	0 (NA)
Nagaland	2594	1590	0	94 (3.6)	105 (6.6)	NA	2567 (99)	1574 (99)	0 (NA)
Odisha	39823	20108	24	1180 (3)	1089 (5.4)	(0)	38640 (97)	19528 (97.1)	24 (100)
Puducherry	961	566	0	27 (2.8)	25 (4.4)	NA	914 (95.1)	550 (97.2)	0 (NA)
Punjab	32779	24755	28	1201 (3.7)	1768 (7.1)	4 (14.3)	30011 (91.6)	22982 (92.8)	27 (96.4)
Rajasthan	111923	58254	71	4605 (4.1)	3829 (6.6)	6 (8.5)	105018 (93.8)	55497 (95.3)	68 (95.8)
Sikkim	736	678	1	19 (2.6)	30 (4.4)	(0)	723 (98.2)	662 (97.6)	1 (100)
Tamil Nadu	65197	30727	44	1781 (2.7)	1675 (5.5)	1 (2.3)	63057 (96.7)	29818 (97)	43 (97.7)
Telangana	44190	28989	41	825 (1.9)	1212 (4.2)	(0)	42954 (97.2)	28316 (97.7)	38 (92.7)
Tripura	2449	848	0	29 (1.2)	29 (3.4)	NA	2354 (96.1)	825 (97.3)	0 (NA)
Uttar Pradesh	308765	226860	229	16137 (5.2)	16880 (7.4)	14 (6.1)	291803 (94.5)	216669 (95.5)	216 (94.3)
Uttarakhand	15873	11471	13	550 (3.5)	764 (6.7)	2 (15.4)	15412 (97.1)	11204 (97.7)	13 (100)
West Bengal	68468	33388	23	1303 (1.9)	1557 (4.7)	(0)	65734 (96)	32060 (96)	23 (100)
India	**1472190**	**948455**	**1021**	**67150 (4.6)**	**68470 (7.2)**	**57 (5.6)**	**1402503 (95.3)**	**909348 (95.9)**	**964 (94.4)**

1.7 GENDER DISAGGREGATED DATA ON TREATMENT OUTCOMES

State	TB Cases Notified-2021			Success Rate, n (%)			Death Rate, n (%)		
	Male	Female	Trans Gender	Male	Female	Trans Gender	Male	Female	Trans Gender
Andaman & Nicobar Islands	264	216	0	229 (86.7)	187 (86.6)	NA	8 (3)	5 (2.3)	NA
Andhra Pradesh	55479	29686	35	51269 (92.4)	28021 (94.4)	31 (88.6)	1635 (2.9)	588 (2)	0 (0)
Arunachal Pradesh	1483	1237	6	1165 (78.6)	993 (80.3)	5 (83.3)	45 (3)	28 (2.3)	0 (0)
Assam	25048	12494	11	21934 (87.6)	11147 (89.2)	10 (90.9)	1179 (4.7)	470 (3.8)	0 (0)
Bihar	81920	51418	57	66416 (81.1)	42794 (83.2)	40 (70.2)	3257 (4)	1624 (3.2)	0 (0)
Chandigarh	1675	1463	7	1373 (82)	1266 (86.5)	7 (100)	76 (4.5)	41 (2.8)	0 (0)
Chhattisgarh	20210	11957	17	17058 (84.4)	10571 (88.4)	17 (100)	1328 (6.6)	518 (4.3)	0 (0)
Dadra and Nagar Haveli and Daman and Diu	436	294	0	397 (91.1)	278 (94.6)	NA	20 (4.6)	10 (3.4)	NA
Delhi	41276	40945	56	29373 (71.2)	31571 (77.1)	47 (83.9)	1447 (3.5)	850 (2.1)	0 (0)
Goa	1169	778	1	907 (77.6)	652 (83.8)	1 (100)	124 (10.6)	51 (6.6)	0 (0)
Gujarat	88146	49881	40	77048 (87.4)	45438 (91.1)	32 (80)	5093 (5.8)	1747 (3.5)	6 (15)
Haryana	41292	28272	31	33732 (81.7)	24338 (86.1)	27 (87.1)	2181 (5.3)	882 (3.1)	2 (6.5)
Himachal Pradesh	8970	5559	3	7753 (86.4)	4976 (89.5)	2 (66.7)	630 (7)	261 (4.7)	0 (0)
Jammu & Kashmir	6349	4556	4	5370 (84.6)	4019 (88.2)	4 (100)	274 (4.3)	143 (3.1)	0 (0)
Jharkhand	35675	17097	20	30739 (86.2)	14917 (87.2)	16 (80)	1351 (3.8)	474 (2.8)	1 (5)
Karnataka	43554	25818	33	35168 (80.7)	22091 (85.6)	28 (84.8)	3771 (8.7)	1463 (5.7)	2 (6.1)
Kerala	14081	7801	4	10977 (78)	6413 (82.2)	4 (100)	1296 (9.2)	483 (6.2)	0 (0)
Ladakh	167	153	0	141 (84.4)	122 (79.7)	NA	12 (7.2)	10 (6.5)	NA
Lakshadweep	9	11	0	7 (77.8)	11 (100)	NA	1 (11.1)	0 (0)	NA
Madhya Pradesh	102694	63342	62	85228 (83)	55460 (87.6)	50 (80.6)	4902 (4.8)	1738 (2.7)	3 (4.8)

State	TB Cases Notified-2021			Success Rate, n (%)			Death Rate, n (%)		
	Male	Female	Trans Gender	Male	Female	Trans Gender	Male	Female	Trans Gender
Maharashtra	97556	84911	83	83525 (85.6)	74933 (88.2)	66 (79.5)	5067 (5.2)	2736 (3.2)	6 (7.2)
Manipur	1156	657	2	918 (79.4)	522 (79.5)	2 (100)	55 (4.8)	18 (2.7)	0 (0)
Meghalaya	2380	1533	3	1967 (82.6)	1352 (88.2)	3 (100)	130 (5.5)	50 (3.3)	0 (0)
Mizoram	969	701	0	840 (86.7)	637 (90.9)	NA	50 (5.2)	22 (3.1)	NA
Nagaland	2240	1393	3	1917 (85.6)	1202 (86.3)	3 (100)	67 (3)	46 (3.3)	0 (0)
Odisha	34472	17298	18	30694 (89)	15764 (91.1)	15 (83.3)	2170 (6.3)	801 (4.6)	2 (11.1)
Puducherry	883	485	1	687 (77.8)	415 (85.6)	1 (100)	51 (5.8)	23 (4.7)	0 (0)
Punjab	29611	22607	35	24597 (83.1)	19464 (86.1)	31 (88.6)	1700 (5.7)	917 (4.1)	2 (5.7)
Rajasthan	96883	50998	56	81378 (84)	44597 (87.4)	43 (76.8)	3645 (3.8)	1205 (2.4)	2 (3.6)
Sikkim	617	570	0	535 (86.7)	511 (89.6)	NA	30 (4.9)	17 (3)	NA
Tamil Nadu	55469	27184	31	45300 (81.7)	23390 (86)	21 (67.7)	3763 (6.8)	1201 (4.4)	2 (6.5)
Telangana	35606	23984	25	32057 (90)	22261 (92.8)	25 (100)	1231 (3.5)	528 (2.2)	0 (0)
Tripura	2045	684	0	1741 (85.1)	587 (85.8)	NA	124 (6.1)	43 (6.3)	NA
Uttar Pradesh	262277	190995	214	222667 (84.9)	168283 (88.1)	186 (86.9)	11523 (4.4)	4972 (2.6)	5 (2.3)
Uttarakhand	13427	9790	14	11430 (85.1)	8707 (88.9)	12 (85.7)	617 (4.6)	246 (2.5)	0 (0)
West Bengal	59930	29325	22	49688 (82.9)	24726 (84.3)	18 (81.8)	3701 (6.2)	1262 (4.3)	0 (0)
India	**1265418**	**816093**	**894**	**1066225 (84.3)**	**712616 (87.3)**	**747 (83.6)**	**62554 (4.9)**	**25473 (3.1)**	**33 (3.7)**

2.1 SCREENING FOR HIV IN NOTIFIED TB

State	TB patients with known HIV status, n (%)		
	Public	Private	Total
Andaman & Nicobar Islands	524 (96.3)	4 (100)	528 (96.4)
Andhra Pradesh	66007 (99.8)	26971 (100)	92978 (99.9)
Arunachal Pradesh	2790 (92.7)	4 (66.7)	2794 (92.7)
Assam	38955 (92.7)	5302 (89.5)	44257 (92.3)
Bihar	70582 (86.7)	76871 (91)	147453 (88.9)
Chandigarh	3620 (97.3)	51 (79.7)	3671 (97)
Chhattisgarh	28804 (97.8)	8661 (93.3)	37465 (96.7)
Dadra and Nagar Haveli and Daman and Diu	844 (99.9)	76 (100)	920 (99.9)
Delhi	69488 (89.1)	6009 (58.8)	75497 (85.6)
Goa	1668 (99.5)	329 (83.1)	1997 (96.3)
Gujarat	107908 (99.3)	37094 (94)	145002 (97.9)
Haryana	59816 (97.6)	16555 (95.2)	76371 (97.1)
Himachal Pradesh	15929 (99.4)	461 (98.5)	16390 (99.3)
Jammu & Kashmir	11101 (97.6)	560 (96.2)	11661 (97.5)
Jharkhand	45326 (96.5)	10149 (88.2)	55475 (94.9)
Karnataka	66045 (98)	11108 (94.4)	77153 (97.5)
Kerala	19736 (95.7)	2627 (90.6)	22363 (95.1)
Ladakh	320 (95.8)	9 (81.8)	329 (95.4)
Lakshadweep	22 (100)	0 (NA)	22 (100)
Madhya Pradesh	134043 (96)	46661 (94.8)	180704 (95.6)
Maharashtra	150835 (99)	75129 (97.1)	225964 (98.4)
Manipur	2027 (85.5)	169 (65.8)	2196 (83.6)
Meghalaya	3966 (85.5)	161 (50)	4127 (83.2)
Mizoram	2075 (99.5)	20 (100)	2095 (99.5)
Nagaland	3658 (96.1)	328 (87.9)	3986 (95.4)
Odisha	55264 (99.5)	4346 (98.9)	59610 (99.4)
Puducherry	1520 (99.7)	2 (100)	1522 (99.7)
Punjab	45215 (94.7)	9338 (95.1)	54553 (94.8)
Rajasthan	126507 (96.1)	36622 (94.8)	163129 (95.8)
Sikkim	1314 (98.2)	72 (97.3)	1386 (98.2)
Tamil Nadu	77587 (99.1)	14216 (80.4)	91803 (95.7)
Telangana	54004 (99)	18492 (99)	72496 (99)
Tripura	3188 (97.9)	34 (85)	3222 (97.8)
Uttar Pradesh	410100 (97.8)	111531 (95.6)	521631 (97.3)
Uttarakhand	22379 (98.5)	4551 (97.9)	26930 (98.4)
West Bengal	91618 (97.6)	6947 (86.8)	98565 (96.8)
India	**1794785 (96.8)**	**531460 (93.6)**	**2326245 (96.1)**

2.2 TB-HIV CO-INFECTION (FROM NACP)

State/UT	TB-HIV co-infected patients Diagnosed	TB-HIV co-infected patients put on ART, n (%)	TB-HIV co-infected patients put on CPT, n (%)
Andaman & Nicobar Islands	5	5 (100)	-
Andhra Pradesh	4,288	4160 (97)	4253 (99)
Arunachal Pradesh	18	11 (61)	16 (89)
Assam	345	279 (81)	312 (90)
Bihar	1,638	1355 (83)	1252 (76)
Chandigarh	165	144 (87)	165 (100)
Chhattisgarh	472	410 (87)	454 (96)
Dadar & Nagar Haveli	14	14 (100)	-
Delhi	1,474	1420 (96)	1496 (101)
Goa	69	63 (91)	65 (94)
Gujarat	2,707	2540 (94)	2610 (96)
Haryana	546	501 (92)	492 (90)
Himachal Pradesh	97	90 (93)	97 (100)
J&K	63	54 (86)	54 (86)
Jharkhand	355	308 (87)	274 (77)
Karnataka	3,979	3851 (97)	3957 (99)
Kerala	215	191 (89)	213 (99)
Madhya Pradesh	1,268	1368 (108)	1345 (106)
Maharashtra	5,054	4911 (97)	4965 (98)
Manipur	176	165 (94)	170 (97)
Meghalaya	214	197 (92)	213 (100)
Mizoram	257	254 (99)	254 (99)
Mumbai	894	892 (100)	906 (101)
Nagaland	398	336 (84)	359 (90)
Odisha	625	592 (95)	620 (99)
Pondicherry	27	27 (100)	27 (100)
Punjab	1,244	1143 (92)	1168 (94)
Rajasthan	1,609	1597 (99)	1570 (98)
Sikkim	11	8 (73)	11 (100)
Tamil Nadu	3,035	2921 (96)	3029 (100)
Telangana	1,959	1818 (93)	1394 (71)
Tripura	55	50 (91)	54 (98)
Uttar Pradesh	2,893	2756 (95)	2896 (100)
Uttarakhand	195	138 (71)	146 (75)
West Bengal	1,214	1140 (94)	1198 (99)
India	**37,578**	**35709 (95)**	**36035 (96)**

2.3 PROVIDER INITIATED TESTING AND COUNSELLING AMONG PRESUMPTIVE TB PATIENTS AND PAEDIATRIC TB PATIENTS

State/UT	Presumptive TB Cases		Paediatric TB Patients	
	Examined	With known HIV status*	Notified	With known HIV status
Andaman & Nicobar Islands	12922	3569 (28)	19	18 (95)
Andhra Pradesh	268507	32486 (12)	2708	2697 (100)
Arunachal Pradesh	13973	4372 (31)	290	277 (96)
Assam	240718	66338 (28)	1413	1243 (88)
Bihar	277032	71959 (26)	15452	11512 (75)
Chandigarh	16036	15334 (96)	281	274 (98)
Chhattisgarh	376330	27006 (7)	1914	1707 (89)
Dadra and Nagar Haveli and Daman and Diu	20989	13792 (66)	60	60 (100)
Delhi	141369	65378 (46)	8960	7662 (86)
Gujarat	1153624	478217 (41)	6947	6648 (96)
Haryana	225791	144442 (64)	4323	4194 (97)
Himachal Pradesh	203939	18024 (9)	536	527 (98)
Jammu & Kashmir	261642	10078 (4)	609	588 (97)
Jharkhand	259420	63971 (25)	2840	2578 (91)
Karnataka	792818	347500 (44)	3548	3405 (96)
Kerala	197577	16315 (8)	895	843 (94)
Ladakh	1860	160 (9)	8	8 (100)
Madhya Pradesh	1042693	417162 (40)	14802	13653 (92)
Maharashtra	1611742	943078 (59)	12775	12550 (98)
Manipur	9351	1762 (19)	86	67 (78)
Meghalaya	15142	7767 (51)	309	196 (63)
Mizoram	9126	4405 (48)	146	145 (99)
Nagaland	14538	5276 (36)	199	181 (91)
Odisha	1108411	192246 (17)	2269	2249 (99)
Puducherry	16732	12031 (72)	52	52 (100)
Punjab	173651	91509 (53)	2973	2852 (96)
Rajasthan	985143	717622 (73)	8440	8036 (95)
Sikkim	7706	50 (1)	49	47 (96)
Tamil Nadu	1531264	1238574 (81)	3457	3099 (90)
Telangana	268776	149277 (56)	2037	2002 (98)
Tripura	44353	1521 (3)	58	57 (98)
Uttar Pradesh	1433276	558531 (39)	33048	31914 (97)
Uttarakhand	59796	13621 (23)	1317	1290 (98)
West Bengal	1118664	713504 (64)	2861	2713 (95)
India	**13914910**	**6739262 (48)**	**135734**	**125397 (92)**

** Data source for HIV status among presumptive TB cases: Annexure M reports*

2.4 INTENSIFIED TB CASE FINDING ACTIVITIES IN ICTC CENTRES (FROM NACP)

State/UT	ICTC attendees (excl. pregnant women)	Clients attending ICTC Centres		
		Referred for TB testing, n(% out of attendees)	Diagnosed with TB, n (% of referred)	Put on treatment, n(% out of diagnosed TB)
Andaman & Nicobar Islands	22535	1055 (5)	23 (2)	22 (96)
Andhra Pradesh	9,63,176	85118 (9)	4176 (5)	4163 (100)
Arunachal Pradesh	15586	359 (2)	20 (6)	11 (55)
Assam	2,01,175	6138 (3)	482 (8)	482 (100)
Bihar	6,42,070	30895 (5)	3175 (10)	3170 (100)
Chandigarh	79934	197 (0)	11 (6)	11 (100)
Chhattisgarh	4,08,680	24279 (6)	1033 (4)	1033 (100)
Dadra and Nagar Haveli and Daman and Diu	36684	335 (1)	88 (26)	88 (100)
Delhi	4,72,437	12858 (3)	617 (5)	617 (100)
Goa	53398	2758 (5)	47 (2)	47 (100)
Gujarat	10,58,290	103910 (10)	4496 (4)	4488 (100)
Haryana	7,73,934	15574 (2)	1111 (7)	762 (69)
Himachal Pradesh	1,65,128	5842 (4)	269 (5)	265 (99)
Jammu & Kashmir	1,13,334	897 (1)	48 (5)	48 (100)
Jharkhand	2,19,891	15476 (7)	1534 (10)	1498 (98)
Karnataka	18,59,848	152996 (8)	4484 (3)	4464 (100)
Kerala	6,09,874	35817 (6)	681 (2)	681 (100)
Ladakh	3530	2 (0)	0 (0)	NA
Lakshadweep	258	0 (0)	NA	NA
Madhya Pradesh	8,50,025	40928 (5)	2334 (6)	2226 (95)
Maharashtra	28,97,566	241740 (8)	12362 (5)	12218 (99)
Manipur	78714	583 (1)	16 (3)	14 (88)
Meghalaya	48516	584 (1)	89 (15)	89 (100)
Mizoram	51437	1225 (2)	59 (5)	56 (95)
Nagaland	67426	3405 (5)	146 (4)	127 (87)
Odisha	9,02,871	89459 (10)	2894 (3)	2698 (93)
Puducherry	82812	859 (1)	25 (3)	20 (80)
Punjab	6,55,209	24984 (4)	1757 (7)	1757 (100)
Rajasthan	9,44,361	52144 (6)	1974 (4)	1608 (81)
Sikkim	19927	106 (1)	15 (14)	12 (80)
Tamil Nadu	29,61,205	243427 (8)	4192 (2)	4182 (100)
Telangana	5,35,190	30671 (6)	1810 (6)	1690 (93)
Tripura	75834	2209 (3)	32 (1)	32 (100)
Uttar Pradesh	14,06,459	65044 (5)	4564 (7)	4093 (90)
Uttarakhand	1,26,637	2914 (2)	371 (13)	371 (100)
West Bengal	10,08,343	43527 (4)	1251 (3)	1191 (95)
India	**2,04,12,294**	**1338315 (7)**	**56186 (4)**	**54234 (97)**

2.5 INTENSIFIED TB CASE FINDING ACTIVITIES IN ART CENTRES (FROM NACP)

State/UT	Cumulative no. of PLHIV on ART at ARTCs as on Dec' 2022	No. of times PLHIV attended ART centre in 2022	PLHIV screened for TB, n(% out of attendance)	PLHIV with presumptive TB, n (% out of screened)	PLHIV referred for TB diagnosis test, n(% out of presumptive identified)	PLHIV tested for TB, n (% out of referred)	PLHIV diagnosed with TB, n (% out of tested)	PLHIV with bacteriologically confirmed TB, n (% out of total diagnosed)
Andaman & Nicobar Islands	156	794	794 (100)	8 (1)	8 (100)	7 (88)	2 (29)	1 (50)
Andhra Pradesh	2,11,651	10,96,051	1068803 (98)	51337 (5)	49971 (97)	49763 (100)	2859 (6)	2032 (71)
Arunachal Pradesh	449	951	951 (100)	178 (19)	178 (100)	178 (100)	9 (5)	4 (44)
Assam	11,312	54,623	54619 (100)	1033 (2)	921 (89)	501 (54)	254 (51)	59 (23)
Bihar	75,045	4,85,446	460843 (95)	15150 (3)	12987 (86)	9106 (70)	1491 (16)	797 (53)
Chandigarh	5,139	30,907	30907 (100)	354 (1)	354 (100)	314 (89)	94 (30)	34 (36)
Chhattisgarh	18,190	1,19,724	116159 (97)	3943 (3)	3523 (89)	3187 (90)	412 (13)	302 (73)
Dadra & Nagar Haveli and Daman & Diu	267	2,225	2225 (100)	5 (0)	5 (100)	5 (100)	5 (100)	5 (100)
Delhi	37,166	2,49,523	237029 (95)	5026 (2)	3367 (67)	2865 (85)	1100 (38)	421 (38)
Goa	3,227	29,903	26504 (89)	244 (1)	210 (86)	205 (98)	14 (7)	12 (86)
Gujarat	78,279	5,80,497	572831 (99)	41668 (7)	39312 (94)	38850 (99)	2392 (6)	881 (37)
Haryana	27,413	1,34,380	133211 (99)	8673 (7)	3201 (37)	2719 (85)	501 (18)	393 (78)
Himachal Pradesh	5,191	29,890	29741 (100)	558 (2)	558 (100)	553 (99)	76 (14)	42 (55)
J&K	3,337	27,608	27608 (100)	162 (1)	146 (90)	141 (97)	60 (43)	28 (47)
Jharkhand	14,256	1,05,840	99794 (94)	2317 (2)	2274 (98)	2005 (88)	333 (17)	234 (70)
Karnataka	1,77,983	12,87,525	1252248 (97)	75287 (6)	62176 (83)	60850 (98)	3296 (5)	1595 (48)
Kerala	15,751	1,18,573	118573 (100)	4422 (4)	2142 (48)	2061 (96)	201 (10)	80 (40)

State/UT	Cumulative no. of PLHIV on ART at ARTCs as on Dec' 2022	No. of times PLHIV attended ART centre in 2022	PLHIV screened for TB, n(% out of attendance)	PLHIV with presumptive TB, n (% out of screened)	PLHIV referred for TB diagnosis test, n(% out of presumptive identified)	PLHIV tested for TB, n (% out of referred)	PLHIV diagnosed with TB, n (% out of tested)	PLHIV with bacteriologically confirmed TB, n (% out of total diagnosed)
Madhya Pradesh	35,153	1,75,033	171793 (98)	19395 (11)	10902 (56)	9956 (91)	1175 (12)	449 (38)
Maharashtra	2,28,266	18,10,095	1743133 (96)	127331 (7)	105859 (83)	104600 (99)	4384 (4)	1873 (43)
Manipur	14,337	1,01,460	98227 (97)	714 (1)	710 (99)	695 (98)	116 (17)	65 (56)
Meghalaya	4,583	31,702	29857 (94)	277 (1)	252 (91)	150 (60)	35 (23)	20 (57)
Mizoram	13,903	73,633	73633 (100)	536 (1)	482 (90)	481 (100)	204 (42)	128 (63)
Nagaland	11,708	67,278	55122 (82)	924 (2)	804 (87)	713 (89)	290 (41)	135 (47)
Odisha	22,783	1,12,215	106534 (95)	5013 (5)	5013 (100)	5002 (100)	378 (8)	267 (71)
Pondicherry	1,311	13,418	11929 (89)	415 (3)	415 (100)	415 (100)	30 (7)	15 (50)
Punjab	53,991	3,37,487	337067 (100)	9106 (3)	4250 (47)	4125 (97)	780 (19)	499 (64)
Rajasthan	54,192	3,68,602	364633 (99)	21255 (6)	20091 (95)	12062 (60)	1513 (13)	732 (48)
Sikkim	289	1,625	1625 (100)	20 (1)	20 (100)	17 (85)	2 (12)	2 (100)
Tamil Nadu	1,25,225	10,73,643	1046897 (98)	56781 (5)	55743 (98)	55278 (99)	2613 (5)	1434 (55)
Telangana	92,544	7,75,372	697763 (90)	15754 (2)	12807 (81)	12297 (96)	1843 (15)	1323 (72)
Tripura	3,850	16,430	16371 (100)	324 (2)	324 (100)	292 (90)	16 (5)	12 (75)
Uttar Pradesh	1,03,793	8,13,230	808789 (99)	17810 (2)	17756 (100)	17415 (98)	1881 (11)	975 (52)
Uttarakhand	5,518	35,321	33002 (93)	959 (3)	958 (100)	624 (65)	187 (30)	63 (34)
West Bengal	49,923	2,70,533	269516 (100)	4060 (2)	4060 (100)	3964 (98)	483 (12)	255 (53)
India	**15,44,869**	**1,06,80,005**	**10338232 (97)**	**500441 (5)**	**431138 (86)**	**409963 (95)**	**29533 (7)**	**16474 (56)**

2.6 TB SCREENING AMONG CORE POPULATIONS IN 2022 (FROM NACP)

State	Target*	HRG screened, n (% of target achieved)	HRG Referred for TB testing, n (% out of screened)	HRG tested for TB, n (% out of referred)	HRG diagnosed with TB, n (% out of tested)
Andaman & Nicobar Islands	0	0	0	0	0
Andhra Pradesh	7,11,056	583367 (82)	43059 (7)	4263 (10)	57 (1)
Arunachal Pradesh	33,900	23493 (69)	155 (1)	155 (100)	10 (6)
Assam	86,492	79939 (92)	2300 (3)	2203 (96)	30 (1)
Bihar	45,100	41659 (92)	275 (1)	262 (95)	6 (2)
Chandigarh	39,936	26732 (67)	77 (0)	76 (99)	4 (5)
Chhattisgarh	1,02,268	66127 (65)	3887 (6)	1233 (32)	68 (6)
Dadra and Nagar Haveli and Daman and Diu	0	0	0	0	0
Delhi	3,72,372	311387 (84)	4280 (1)	1316 (31)	86 (7)
Goa	38,564	31042 (80)	95 (0)	7 (7)	0 (0)
Gujarat	2,33,804	181527 (78)	10367 (6)	7812 (75)	33 (0)
Haryana	86,392	68421 (79)	222 (0)	159 (72)	19 (12)
Himachal Pradesh	27,680	27979 (101)	1028 (4)	963 (94)	0 (0)
Jammu & Kashmir	27,124	7815 (29)	1089 (14)	856 (79)	0 (0)
Jharkhand	72,216	61436 (85)	226 (0)	211 (93)	2 (1)
Karnataka	7,03,636	703636 (100)	24168 (3)	8653 (36)	51 (1)
Kerala	2,06,108	107465 (52)	479 (0)	331 (69)	6 (2)
Madhya Pradesh	3,02,236	219303 (73)	5325 (2)	2278 (43)	55 (2)
Maharashtra	4,92,144	386571 (79)	9823 (3)	7312 (74)	201 (3)
Manipur	1,37,052	47084 (34)	752 (2)	589 (78)	6 (1)
Meghalaya	13,912	8894 (64)	287 (3)	147 (51)	0 (0)
Mizoram	60,640	31947 (53)	61 (0)	56 (92)	6 (11)
Nagaland	1,21,696	33344 (27)	168 (1)	116 (69)	3 (3)
Odisha	1,09,644	77434 (71)	8022 (10)	7173 (89)	15 (0)
Puducherry	25,788	22254 (86)	118 (1)	115 (97)	0 (0)

State	Target*	HRG screened, n (% of target achieved)	HRG Referred for TB testing, n (% out of screened)	HRG tested for TB, n (% out of referred)	HRG diagnosed with TB, n (% out of tested)
Punjab	1,88,544	146466 (78)	927 (1)	463 (50)	33 (7)
Rajasthan	95,784	95784 (100)	177 (0)	168 (95)	6 (4)
Sikkim	10,836	3739 (35)	71 (2)	41 (58)	1 (2)
Tamil Nadu	4,79,808	319861 (67)	6959 (2)	4526 (65)	15 (0)
Telangana	5,61,412	561412 (100)	4648 (1)	2893 (62)	48 (2)
Tripura	36,276	29137 (80)	2550 (9)	533 (21)	10 (2)
Uttar Pradesh	2,46,816	151827 (62)	7626 (5)	2944 (39)	87 (3)
Uttarakhand	41,268	35974 (87)	558 (2)	393 (70)	17 (4)
West Bengal	95,304	64332 (68)	1388 (2)	295 (21)	5 (2)
India	**58,05,808**	**4557388 (78)**	**141167 (3)**	**58542 (41)**	**880 (2)**

**Please note that in core group the HRG population needs to screen for TB every quarter*

2.7 TB SCREENING AMONG BRIDGE POPULATIONS IN 2022 (FROM NACP)

State	Target*	HRG screened, n (% of target achieved)	HRG Referred for TB testing, n (% out of screened)	HRG tested for TB, n (% out of referred)	HRG diagnosed with TB, n (% out of tested)
Andaman & Nicobar Islands	0	NA	NA	NA	NA
Andhra Pradesh	92,033	68819 (75)	8299 (12)	821 (10)	6 (1)
Arunachal Pradesh	29,852	29852 (100)	19 (0)	19 (100)	0 (0)
Assam	28,982	21502 (74)	840 (4)	227 (27)	1 (0)
Bihar	7,038	5765 (82)	131 (2)	2 (2)	0 (0)
Chandigarh	21,637	21637 (100)	176 (1)	172 (98)	6 (3)
Chhattisgarh	90,782	51466 (57)	2525 (5)	603 (24)	7 (1)
Dadra and Nagar Haveli and Daman and Diu	0	NA	NA	NA	NA
Delhi	1,37,702	137702 (100)	1521 (1)	751 (49)	11 (1)
Goa	19,290	18074 (94)	196 (1)	0 (0)	NA
Gujarat	1,89,129	171212 (91)	3828 (2)	1619 (42)	46 (3)
Haryana	44,377	44397 (100)	99 (0)	47 (47)	2 (4)
Himachal Pradesh	33,639	33639 (100)	125 (0)	17 (14)	0 (0)
Jammu & Kashmir	5,763	4627 (80)	367 (8)	309 (84)	1 (0)
Jharkhand	43,188	43188 (100)	1 (0)	1 (100)	0 (0)
Karnataka	2,94,626	294626 (100)	2644 (1)	414 (16)	6 (1)
Kerala	1,21,984	121984 (100)	234 (0)	162 (69)	1 (1)
Madhya Pradesh	1,48,923	148923 (100)	950 (1)	360 (38)	28 (8)
Maharashtra	5,22,035	514589 (99)	40434 (8)	4441 (11)	109 (2)
Manipur	7,490	4450 (59)	11 (0)	11 (100)	1 (9)
Meghalaya	0	NA	NA	NA	NA
Mizoram	9,119	9119 (100)	220 (2)	1 (0)	0 (0)
Nagaland	12,396	1459 (12)	11 (1)	9 (82)	1 (11)
Odisha	87,449	84970 (97)	3373 (4)	2901 (86)	17 (1)

State	Target*	HRG screened, n (% of target achieved)	HRG Referred for TB testing, n (% out of screened)	HRG tested for TB, n (% out of referred)	HRG diagnosed with TB, n (% out of tested)
Puducherry	13,636	13636 (100)	2 (0)	2 (100)	0 (0)
Punjab	49,816	49816 (100)	239 (0)	88 (37)	16 (18)
Rajasthan	2,08,279	208279 (100)	195 (0)	129 (66)	26 (20)
Sikkim	0	NA	NA	NA	NA
Tamil Nadu	2,52,504	252504 (100)	967 (0)	245 (25)	2 (1)
Telangana	3,35,565	335565 (100)	288 (0)	73 (25)	1 (1)
Tripura	11,980	7321 (61)	320 (4)	7 (2)	0 (0)
Uttar Pradesh	77,996	42282 (54)	1344 (3)	334 (25)	9 (3)
Uttarakhand	89,468	62094 (69)	293 (0)	136 (46)	38 (28)
West Bengal	62,095	43918 (71)	631 (1)	601 (95)	10 (2)
India	**30,48,773**	**2847415 (93)**	**70283 (2)**	**14502 (21)**	**345 (2)**

Target for Screening of Bridge population is 40% of total target

Target will remain same for every quarter

2.8 TB SCREENING AMONG PRISON INMATES IN 2022 (FROM NACP)

State	Total prisons covered under the programme	Total no. of prison inmates	Total inmates screened for TB, n (% out of inmates)	Total prison inmates referred for TB testing, n (% out of screened)	Total prison inmates tested for TB, n (% out of referred)	Total prison inmates diagnosed as TB, n (% out of tested)
Andaman & Nicobar Islands	1	1,500	1 (0)	1 (100)	0 (0)	NA
Andhra Pradesh	81	31,673	24540 (77)	74 (0)	78 (105)	9 (12)
Arunachal Pradesh	6	588	229 (39)	0 (0)	NA	NA
Assam	31	14,272	10590 (74)	322 (3)	252 (78)	10 (4)
Bihar	59	1,26,085	30131 (24)	18093 (60)	18086 (100)	229 (1)
Chandigarh	1	1,366	1233 (90)	1 (0)	1 (100)	0 (0)
Chhattisgarh	33	8,003	1553 (19)	37 (2)	42 (114)	5 (12)
Dadra and Nagar Haveli and Daman and Diu	2	227	73 (32)	10 (14)	10 (100)	0 (0)
Delhi	15	13,745	11657 (85)	498 (4)	372 (75)	90 (24)
Goa	1	710	517 (73)	14 (3)	8 (57)	0 (0)
Gujarat	31	22,807	10246 (45)	552 (5)	441 (80)	16 (4)
Haryana	20	49,420	46633 (94)	751 (2)	751 (100)	12 (2)
Himachal Pradesh	15	4,525	4525 (100)	748 (17)	748 (100)	7 (1)
Jammu & Kashmir	15	7,691	7696 (100)	2564 (33)	2082 (81)	6 (0)
Jharkhand	30	13,632	9511 (70)	502 (5)	502 (100)	5 (1)
Karnataka	52	36,601	33102 (90)	369 (1)	283 (77)	12 (4)
Kerala	55	26,419	18188 (69)	1871 (10)	1738 (93)	10 (1)
Ladakh	1	26	26 (100)	0 (0)	NA	NA
Madhya Pradesh	121	1,87,896	181397 (97)	18519 (10)	16606 (90)	214 (1)
Maharashtra	40	56,129	16959 (30)	2245 (13)	1419 (63)	42 (3)
Manipur	2	1,414	1403 (99)	4 (0)	4 (100)	1 (25)
Meghalaya	5	1,752	1744 (100)	24 (1)	24 (100)	0 (0)
Mizoram	9	2,470	2470 (100)	22 (1)	17 (77)	1 (6)

State	Total prisons covered under the programme	Total no. of prison inmates	Total inmates screened for TB, n (% out of inmates)	Total prison inmates referred for TB testing, n (% out of screened)	Total prison inmates tested for TB, n (% out of referred)	Total prison inmates diagnosed as TB, n (% out of tested)
Nagaland	11	250	116 (46)	10 (9)	10 (100)	2 (20)
Odisha	92	27,531	17822 (65)	918 (5)	539 (59)	2 (0)
Puducherry	4	758	694 (92)	0 (0)	NA	NA
Punjab	25	37,853	35004 (92)	272 (1)	233 (86)	9 (4)
Rajasthan	145	75,772	68289 (90)	484 (1)	284 (59)	23 (8)
Sikkim	2	330	15 (5)	0 (0)	NA	NA
Tamil Nadu	142	63,804	62696 (98)	4946 (8)	3815 (77)	24 (1)
Telangana	36	33,446	25818 (77)	210 (1)	210 (100)	20 (10)
Tripura	14	921	597 (65)	6 (1)	6 (100)	0 (0)
Uttar Pradesh	74	2,35,193	198813 (85)	3528 (2)	3462 (98)	373 (11)
Uttarakhand	10	18,294	13754 (75)	402 (3)	393 (98)	14 (4)
West Bengal	61	30,380	4577 (15)	886 (19)	833 (94)	73 (9)
India	**1,242**	**11,33,483**	**842619 (74)**	**58883 (7)**	**53249 (90)**	**1209 (2)**

2.9 SUMMARY OF NACP DATA FOR TB-HIV (JAN-DEC 2022) (FROM NACP)

S.No.	Indicators		Jan-Dec 2022
I	Clients attending ICTC Centres	ICTC attendees (excl. pregnant women)	2,04,12,294
		Referred for TB testing, n (% out of attendees)	1338315 (7)
		Diagnosed with TB, n (% out of referred)	56186 (4)
		Put on treatment, n (% out of diagnosed)	54234 (97)
II	TB-HIV co-infected patients	Co-infected patients enrolled in HIV/TB register	37,578
		Co-infected patients initiated on ART, n (%)	35709 (95)
		Co-infected patients initiated on CPT, n (%)	36035 (96)
III	Co-infected attending ARTc	PLHIV alive and on ART (as on Dec. 2022)	15,44,869
		PLHIV attending ART Centre	1,06,80,005
		PLHIV who underwent (4S) screening, n (% out of attendees)	10338232 (97)
		PLHIV with presumptive TB, n (% out of screened)	500441 (5)
		PLHIV with presumptive TB referred for TB diagnosis test, n (% out of presumptive TB identifie)	431138 (86)
		PLHIV with presumptive TB tested for TB, n (% out of referred)	409963 (95)
		PLHIV diagnosed as having TB (Clinically + Mircobiologically) Total	29,533
		PLHIV diagnosed as having TB (Microbiologically confirmed), n (% out of total TB)	16474 (56)
		Cumulative Number of PLHIV in Active Care (as on Dec. 2022)	15,52,132
IV	Core Population	Target*	58,05,808
		HRG screened, n (% of target achieved)	4557388 (78)
		HRG Referred for TB testing, n (% of screened)	141167 (3)
		HRG tested for TB, n (% of referred)	58542 (41)
		HRG diagnosed for TB, n (% of tested)	880 (2)
V	Bridge Population	Target#	30,48,773
		HRG screened, n (% of target achieved)	2847415 (93)
		HRG Referred for TB testing, n (% of screened)	70283 (2)
		HRG tested for TB, n (% of referred)	14502 (21)
		HRG diagnosed for TB, n (% of tested)	345 (2)

S.No.	Indicators		Jan-Dec 2022
VI	Prison Inmates	Total prisons covered under the programme	1,242
		Total no. of prison inmates	11,33,483
		Total inmates screened for TB, n (% out of total inmates)	842619 (74)
		Total prison inmates referred for TB testing, n (% of screened)	58883 (7)
		Total prison inmates tested for TB, n (% of referred)	53249 (90)
		Total prison inmates diagnosed as TB, n (% of tested)	1209 (2)

#Target for Screening of Bridge population is 40% of total target, Target will remain same for every quarter
**Please note that in core group the HRG population needs to screen for TB every quarter*

State	TB patients with known DM status, n (% of notified)			TB - DM Patients diagnosed among tested, n (% of those with known DM status)			TB- DM patients initiated on Anti-diabetic treatment, n (% of TB-DM)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	518 (95.2)	3 (75)	521 (95.1)	97 (18.7)	1 (33.3)	98 (18.8)	69 (71.1)	1 (100)	70 (71.4)
Andhra Pradesh	65235 (98.7)	26883 (99.6)	92118 (98.9)	8816 (13.5)	2940 (10.9)	11756 (12.8)	6282 (71.3)	1671 (56.8)	7953 (67.7)
Arunachal Pradesh	2378 (79)	3 (50)	2381 (79)	59 (2.5)	0 (0)	59 (2.5)	28 (47.5)	NA	28 (47.5)
Assam	34011 (81)	4929 (83.2)	38940 (81.2)	2554 (7.5)	499 (10.1)	3053 (7.8)	1003 (39.3)	179 (35.9)	1182 (38.7)
Bihar	53768 (66.1)	74114 (87.7)	127882 (77.1)	3062 (5.7)	3801 (5.1)	6863 (5.4)	1489 (48.6)	811 (21.3)	2300 (33.5)
Chandigarh	3531 (94.9)	47 (73.4)	3578 (94.6)	316 (8.9)	5 (10.6)	321 (9)	248 (78.5)	5 (100)	253 (78.8)
Chhattisgarh	26987 (91.6)	8243 (88.8)	35230 (91)	2473 (9.2)	639 (7.8)	3112 (8.8)	1184 (47.9)	155 (24.3)	1339 (43)
Dadra and Nagar Haveli and Daman and Diu	838 (99.2)	76 (100)	914 (99.2)	56 (6.7)	3 (3.9)	59 (6.5)	46 (82.1)	2 (66.7)	48 (81.4)
Delhi	65700 (84.2)	5628 (55)	71328 (80.8)	5323 (8.1)	621 (11)	5944 (8.3)	2661 (50)	168 (27.1)	2829 (47.6)
Goa	1659 (98.9)	288 (72.7)	1947 (93.9)	332 (20)	45 (15.6)	377 (19.4)	300 (90.4)	25 (55.6)	325 (86.2)
Gujarat	106333 (97.8)	35899 (90.9)	142232 (96)	5343 (5)	1250 (3.5)	6593 (4.6)	4304 (80.6)	991 (79.3)	5295 (80.3)
Haryana	58171 (95)	15853 (91.1)	74024 (94.1)	4463 (7.7)	837 (5.3)	5300 (7.2)	3357 (75.2)	560 (66.9)	3917 (73.9)
Himachal Pradesh	15885 (99.1)	455 (97.2)	16340 (99)	1484 (9.3)	27 (5.9)	1511 (9.2)	1136 (76.5)	21 (77.8)	1157 (76.6)
Jammu & Kashmir	10855 (95.4)	552 (94.8)	11407 (95.4)	729 (6.7)	40 (7.2)	769 (6.7)	378 (51.9)	31 (77.5)	409 (53.2)
Jharkhand	42246 (90)	9644 (83.8)	51890 (88.8)	2305 (5.5)	648 (6.7)	2953 (5.7)	1266 (54.9)	260 (40.1)	1526 (51.7)
Karnataka	64615 (95.9)	10593 (90)	75208 (95)	9616 (14.9)	975 (9.2)	10591 (14.1)	7379 (76.7)	742 (76.1)	8121 (76.7)
Kerala	19388 (94.1)	2557 (88.2)	21945 (93.3)	6376 (32.9)	770 (30.1)	7146 (32.6)	4163 (65.3)	446 (57.9)	4609 (64.5)

State	TB patients with known DM status, n (% of notified)			TB - DM Patients diagnosed among tested, n (% of those with known DM status)			TB- DM patients initiated on Anti-diabetic treatment, n (% of TB-DM)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Ladakh	306 (91.6)	9 (81.8)	315 (91.3)	7 (2.3)	1 (11.1)	8 (2.5)	6 (85.7)	1 (100)	7 (87.5)
Lakshadweep	21 (95.5)	NA	21 (95.5)	5 (23.8)	NA	5 (23.8)	4 (80)	NA	4 (80)
Madhya Pradesh	125381 (89.8)	46026 (93.5)	171407 (90.7)	6816 (5.4)	3221 (7)	10037 (5.9)	2983 (43.8)	1196 (37.1)	4179 (41.6)
Maharashtra	148268 (97.3)	73877 (95.5)	222145 (96.7)	9416 (6.4)	4376 (5.9)	13792 (6.2)	6493 (69)	2543 (58.1)	9036 (65.5)
Manipur	1808 (76.3)	143 (55.6)	1951 (74.3)	275 (15.2)	11 (7.7)	286 (14.7)	129 (46.9)	2 (18.2)	131 (45.8)
Meghalaya	3646 (78.6)	165 (51.2)	3811 (76.8)	216 (5.9)	4 (2.4)	220 (5.8)	142 (65.7)	3 (75)	145 (65.9)
Mizoram	2056 (98.6)	20 (100)	2076 (98.6)	129 (6.3)	6 (30)	135 (6.5)	125 (96.9)	6 (100)	131 (97)
Nagaland	3165 (83.2)	349 (93.6)	3514 (84.1)	175 (5.5)	20 (5.7)	195 (5.5)	86 (49.1)	2 (10)	88 (45.1)
Odisha	53597 (96.5)	4141 (94.2)	57738 (96.3)	4047 (7.6)	274 (6.6)	4321 (7.5)	3105 (76.7)	211 (77)	3316 (76.7)
Puducherry	1510 (99)	2 (100)	1512 (99)	464 (30.7)	0 (0)	464 (30.7)	445 (95.9)	NA	445 (95.9)
Punjab	43665 (91.5)	9006 (91.8)	52671 (91.5)	4930 (11.3)	676 (7.5)	5606 (10.6)	2266 (46)	170 (25.1)	2436 (43.5)
Rajasthan	119170 (90.5)	34317 (88.8)	153487 (90.1)	3484 (2.9)	1208 (3.5)	4692 (3.1)	2276 (65.3)	538 (44.5)	2814 (60)
Sikkim	1305 (97.5)	71 (95.9)	1376 (97.5)	118 (9)	4 (5.6)	122 (8.9)	106 (89.8)	3 (75)	109 (89.3)
Tamil Nadu	76635 (97.9)	16054 (90.8)	92689 (96.6)	20196 (26.4)	3655 (22.8)	23851 (25.7)	19144 (94.8)	3179 (87)	22323 (93.6)
Telangana	51411 (94.3)	17215 (92.2)	68626 (93.7)	3250 (6.3)	892 (5.2)	4142 (6)	2691 (82.8)	738 (82.7)	3429 (82.8)
Tripura	3078 (94.6)	34 (85)	3112 (94.4)	473 (15.4)	6 (17.6)	479 (15.4)	182 (38.5)	0 (0)	182 (38)
Uttar Pradesh	390088 (93)	100893 (86.5)	490981 (91.6)	21480 (5.5)	1968 (2)	23448 (4.8)	8161 (38)	670 (34)	8831 (37.7)
Uttarakhand	21948 (96.6)	4339 (93.3)	26287 (96.1)	1741 (7.9)	231 (5.3)	1972 (7.5)	670 (38.5)	121 (52.4)	791 (40.1)
West Bengal	87854 (93.6)	6472 (80.9)	94326 (92.6)	12541 (14.3)	910 (14.1)	13451 (14.3)	9590 (76.5)	710 (78)	10300 (76.6)
India	**1707030 (92.1)**	**508900 (89.6)**	**2215930 (91.5)**	**143167 (8.4)**	**30564 (6)**	**173731 (7.8)**	**93897 (65.6)**	**16161 (52.9)**	**110058 (63.3)**

2.11 TB - TOBACCO

State	TB patients with known Tobacco usage status, n (% of notified)			Tobacco users identified amongst screened, n (% of those with known tobacco usage status)			Tobacco users linked with Tobacco cessation centres, n (% of tobacco users)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	495 (91)	3 (75)	498 (90.9)	89 (18)	0 (0)	89 (17.9)	30 (33.7)	NA	30 (33.7)
Andhra Pradesh	63627 (96.2)	26477 (98.1)	90104 (96.8)	9786 (15.4)	1409 (5.3)	11195 (12.4)	2456 (25.1)	326 (23.1)	2782 (24.9)
Arunachal Pradesh	2256 (75)	3 (50)	2259 (74.9)	303 (13.4)	0 (0)	303 (13.4)	171 (56.4)	NA	171 (56.4)
Assam	30134 (71.7)	4074 (68.8)	34208 (71.4)	7929 (26.3)	325 (8)	8254 (24.1)	1497 (18.9)	93 (28.6)	1590 (19.3)
Bihar	44248 (54.4)	36165 (42.8)	80413 (48.5)	4139 (9.4)	1152 (3.2)	5291 (6.6)	917 (22.2)	41 (3.6)	958 (18.1)
Chandigarh	3508 (94.3)	47 (73.4)	3555 (94)	305 (8.7)	2 (4.3)	307 (8.6)	60 (19.7)	0 (0)	60 (19.5)
Chhattisgarh	25332 (86)	5815 (62.7)	31147 (80.4)	7986 (31.5)	336 (5.8)	8322 (26.7)	3595 (45)	140 (41.7)	3735 (44.9)
Dadra and Nagar Haveli and Daman and Diu	548 (64.9)	57 (75)	605 (65.7)	67 (12.2)	2 (3.5)	69 (11.4)	38 (56.7)	2 (100)	40 (58)
Delhi	51623 (66.2)	1686 (16.5)	53309 (60.4)	3440 (6.7)	16 (0.9)	3456 (6.5)	777 (22.6)	5 (31.3)	782 (22.6)
Goa	1553 (92.6)	27 (6.8)	1580 (76.2)	105 (6.8)	1 (3.7)	106 (6.7)	8 (7.6)	1 (100)	9 (8.5)
Gujarat	104192 (95.9)	35780 (90.6)	139972 (94.5)	16920 (16.2)	2365 (6.6)	19285 (13.8)	7145 (42.2)	895 (37.8)	8040 (41.7)
Haryana	54848 (89.5)	14373 (82.6)	69221 (88)	2572 (4.7)	486 (3.4)	3058 (4.4)	1044 (40.6)	161 (33.1)	1205 (39.4)
Himachal Pradesh	15625 (97.5)	437 (93.4)	16062 (97.4)	1855 (11.9)	22 (5)	1877 (11.7)	1674 (90.2)	18 (81.8)	1692 (90.1)
Jammu & Kashmir	10254 (90.1)	513 (88.1)	10767 (90)	769 (7.5)	24 (4.7)	793 (7.4)	438 (57)	15 (62.5)	453 (57.1)
Jharkhand	36887 (78.6)	4611 (40.1)	41498 (71)	4280 (11.6)	91 (2)	4371 (10.5)	1349 (31.5)	33 (36.3)	1382 (31.6)
Karnataka	59878 (88.9)	9824 (83.5)	69702 (88.1)	11159 (18.6)	566 (5.8)	11725 (16.8)	3326 (29.8)	168 (29.7)	3494 (29.8)
Kerala	17712 (85.9)	2070 (71.4)	19782 (84.1)	2614 (14.8)	110 (5.3)	2724 (13.8)	1567 (59.9)	64 (58.2)	1631 (59.9)
Ladakh	297 (88.9)	9 (81.8)	306 (88.7)	7 (2.4)	1 (11.1)	8 (2.6)	4 (57.1)	1 (100)	5 (62.5)

State	TB patients with known Tobacco usage status, n (% of notified)			Tobacco users identified amongst screened, n (% of those with known tobacco usage status)			Tobacco users linked with Tobacco cessation centres, n (% of tobacco users)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Lakshadweep	22 (100)	0 (NA)	22 (100)	1 (4.5)	0 (NA)	1 (4.5)	1 (100)	NA	1 (100)
Madhya Pradesh	81505 (58.3)	20132 (40.9)	101637 (53.8)	13625 (16.7)	974 (4.8)	14599 (14.4)	2697 (19.8)	92 (9.4)	2789 (19.1)
Maharashtra	128562 (84.4)	53968 (69.8)	182530 (79.5)	11941 (9.3)	1409 (2.6)	13350 (7.3)	4069 (34.1)	404 (28.7)	4473 (33.5)
Manipur	1709 (72.1)	135 (52.5)	1844 (70.2)	330 (19.3)	12 (8.9)	342 (18.5)	82 (24.8)	1 (8.3)	83 (24.3)
Meghalaya	3586 (77.3)	182 (56.5)	3768 (75.9)	1384 (38.6)	60 (33)	1444 (38.3)	254 (18.4)	3 (5)	257 (17.8)
Mizoram	2042 (97.9)	19 (95)	2061 (97.9)	616 (30.2)	5 (26.3)	621 (30.1)	548 (89)	5 (100)	553 (89)
Nagaland	3141 (82.5)	357 (95.7)	3498 (83.7)	591 (18.8)	70 (19.6)	661 (18.9)	381 (64.5)	24 (34.3)	405 (61.3)
Odisha	52549 (94.6)	4025 (91.6)	56574 (94.4)	9966 (19)	262 (6.5)	10228 (18.1)	4454 (44.7)	114 (43.5)	4568 (44.7)
Puducherry	1480 (97)	2 (100)	1482 (97.1)	224 (15.1)	1 (50)	225 (15.2)	220 (98.2)	1 (100)	221 (98.2)
Punjab	40507 (84.9)	7662 (78.1)	48169 (83.7)	1693 (4.2)	85 (1.1)	1778 (3.7)	278 (16.4)	4 (4.7)	282 (15.9)
Rajasthan	106155 (80.6)	28475 (73.7)	134630 (79.1)	9100 (8.6)	1541 (5.4)	10641 (7.9)	3141 (34.5)	572 (37.1)	3713 (34.9)
Sikkim	947 (70.8)	49 (66.2)	996 (70.5)	77 (8.1)	2 (4.1)	79 (7.9)	5 (6.5)	1 (50)	6 (7.6)
Tamil Nadu	71409 (91.2)	12182 (68.9)	83591 (87.1)	13718 (19.2)	958 (7.9)	14676 (17.6)	3231 (23.6)	165 (17.2)	3396 (23.1)
Telangana	51000 (93.5)	16920 (90.6)	67920 (92.8)	6533 (12.8)	754 (4.5)	7287 (10.7)	3455 (52.9)	428 (56.8)	3883 (53.3)
Tripura	2215 (68)	31 (77.5)	2246 (68.2)	478 (21.6)	0 (0)	478 (21.3)	44 (9.2)	NA	44 (9.2)
Uttar Pradesh	301001 (71.8)	57695 (49.4)	358696 (66.9)	29311 (9.7)	1686 (2.9)	30997 (8.6)	6824 (23.3)	236 (14)	7060 (22.8)
Uttarakhand	21611 (95.1)	4206 (90.5)	25817 (94.4)	2492 (11.5)	185 (4.4)	2677 (10.4)	800 (32.1)	38 (20.5)	838 (31.3)
West Bengal	80975 (86.3)	6168 (77.1)	87143 (85.6)	18126 (22.4)	1100 (17.8)	19226 (22.1)	6173 (34.1)	353 (32.1)	6526 (33.9)
India	1473433 (79.5)	354179 (62.4)	1827612 (75.5)	194531 (13.2)	16012 (4.5)	210543 (11.5)	62753 (32.3)	4404 (27.5)	67157 (31.9)

State	TB patients with known Alcohol usage status, n (% of notified)			Alcohol users identified amongst screened, n (% of those with known alcohol usage status)			Alcohol users linked with Deaddiction centres, n (% of alcohol users)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	490 (90.1)	3 (75)	493 (90)	90 (18.4)	0 (0)	90 (18.3)	26 (28.9)	NA	26 (28.9)
Andhra Pradesh	63257 (95.7)	26303 (97.5)	89560 (96.2)	8187 (12.9)	1208 (4.6)	9395 (10.5)	1901 (23.2)	265 (21.9)	2166 (23.1)
Arunachal Pradesh	2240 (74.4)	3 (50)	2243 (74.4)	245 (10.9)	0 (0)	245 (10.9)	140 (57.1)	NA	140 (57.1)
Assam	29582 (70.4)	4366 (73.7)	33948 (70.8)	5161 (17.4)	179 (4.1)	5340 (15.7)	1244 (24.1)	71 (39.7)	1315 (24.6)
Bihar	44246 (54.4)	35745 (42.3)	79991 (48.2)	781 (1.8)	254 (0.7)	1035 (1.3)	254 (32.5)	9 (3.5)	263 (25.4)
Chandigarh	3487 (93.8)	47 (73.4)	3534 (93.4)	209 (6)	1 (2.1)	210 (5.9)	39 (18.7)	1 (100)	40 (19)
Chhattisgarh	24653 (83.7)	5734 (61.8)	30387 (78.5)	5395 (21.9)	247 (4.3)	5642 (18.6)	2606 (48.3)	114 (46.2)	2720 (48.2)
Dadra and Nagar Haveli and Daman and Diu	562 (66.5)	58 (76.3)	620 (67.3)	59 (10.5)	3 (5.2)	62 (10)	31 (52.5)	1 (33.3)	32 (51.6)
Delhi	50682 (65)	1660 (16.2)	52342 (59.3)	3074 (6.1)	18 (1.1)	3092 (5.9)	619 (20.1)	4 (22.2)	623 (20.1)
Goa	1563 (93.2)	28 (7.1)	1591 (76.7)	120 (7.7)	2 (7.1)	122 (7.7)	16 (13.3)	0 (0)	16 (13.1)
Gujarat	103459 (95.2)	35556 (90.1)	139015 (93.8)	5707 (5.5)	493 (1.4)	6200 (4.5)	2455 (43)	252 (51.1)	2707 (43.7)
Haryana	54295 (88.6)	14079 (80.9)	68374 (86.9)	1790 (3.3)	238 (1.7)	2028 (3)	729 (40.7)	99 (41.6)	828 (40.8)
Himachal Pradesh	15509 (96.7)	429 (91.7)	15938 (96.6)	1379 (8.9)	17 (4)	1396 (8.8)	1176 (85.3)	10 (58.8)	1186 (85)
Jammu & Kashmir	10172 (89.4)	514 (88.3)	10686 (89.3)	430 (4.2)	5 (1)	435 (4.1)	222 (51.6)	4 (80)	226 (52)
Jharkhand	35773 (76.2)	4537 (39.4)	40310 (68.9)	3335 (9.3)	48 (1.1)	3383 (8.4)	885 (26.5)	16 (33.3)	901 (26.6)
Karnataka	59273 (88)	9629 (81.8)	68902 (87.1)	8964 (15.1)	409 (4.2)	9373 (13.6)	2538 (28.3)	110 (26.9)	2648 (28.3)
Kerala	17510 (84.9)	2003 (69.1)	19513 (83)	2660 (15.2)	101 (5)	2761 (14.1)	1270 (47.7)	38 (37.6)	1308 (47.4)

State	TB patients with known Alcohol usage status, n (% of notified)			Alcohol users identified amongst screened, n (% of those with known alcohol usage status)			Alcohol users linked with Deaddiction centres, n (% of alcohol users)		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Ladakh	292 (87.4)	8 (72.7)	300 (87)	17 (5.8)	1 (12.5)	18 (6)	3 (17.6)	1 (100)	4 (22.2)
Lakshadweep	22 (100)	0 (NA)	22 (100)	0 (0)	0 (0)	0 (0)	0 (0)	NA	NA
Madhya Pradesh	79128 (56.6)	19701 (40)	98829 (52.3)	5170 (6.5)	275 (1.4)	5445 (5.5)	1110 (21.5)	53 (19.3)	1163 (21.4)
Maharashtra	126323 (82.9)	52493 (67.9)	178816 (77.8)	6857 (5.4)	718 (1.4)	7575 (4.2)	2469 (36)	226 (31.5)	2695 (35.6)
Manipur	1720 (72.6)	126 (49)	1846 (70.3)	251 (14.6)	8 (6.3)	259 (14)	79 (31.5)	1 (12.5)	80 (30.9)
Meghalaya	3538 (76.2)	148 (46)	3686 (74.3)	746 (21.1)	7 (4.7)	753 (20.4)	168 (22.5)	0 (0)	168 (22.3)
Mizoram	2025 (97.1)	20 (100)	2045 (97.1)	240 (11.9)	2 (10)	242 (11.8)	105 (43.8)	0 (0)	105 (43.4)
Nagaland	3127 (82.2)	351 (94.1)	3478 (83.2)	312 (10)	10 (2.8)	322 (9.3)	198 (63.5)	0 (0)	198 (61.5)
Odisha	52157 (93.9)	3969 (90.3)	56126 (93.6)	8665 (16.6)	251 (6.3)	8916 (15.9)	4024 (46.4)	103 (41)	4127 (46.3)
Puducherry	1467 (96.2)	2 (100)	1469 (96.2)	320 (21.8)	0 (0)	320 (21.8)	315 (98.4)	NA	315 (98.4)
Punjab	40121 (84.1)	7502 (76.4)	47623 (82.8)	1531 (3.8)	72 (1)	1603 (3.4)	280 (18.3)	6 (8.3)	286 (17.8)
Rajasthan	104335 (79.3)	28427 (73.6)	132762 (78)	3343 (3.2)	450 (1.6)	3793 (2.9)	1071 (32)	191 (42.4)	1262 (33.3)
Sikkim	983 (73.5)	48 (64.9)	1031 (73)	60 (6.1)	2 (4.2)	62 (6)	4 (6.7)	1 (50)	5 (8.1)
Tamil Nadu	71063 (90.8)	12009 (68)	83072 (86.6)	16475 (23.2)	979 (8.2)	17454 (21)	3754 (22.8)	170 (17.4)	3924 (22.5)
Telangana	50793 (93.1)	16883 (90.4)	67676 (92.4)	7172 (14.1)	871 (5.2)	8043 (11.9)	3827 (53.4)	474 (54.4)	4301 (53.5)
Tripura	2177 (66.9)	32 (80)	2209 (67)	495 (22.7)	0 (0)	495 (22.4)	72 (14.5)	NA	72 (14.5)
Uttar Pradesh	291692 (69.6)	56031 (48)	347723 (64.9)	9876 (3.4)	506 (0.9)	10382 (3)	2846 (28.8)	76 (15)	2922 (28.1)
Uttarakhand	21322 (93.9)	4180 (89.9)	25502 (93.2)	1645 (7.7)	106 (2.5)	1751 (6.9)	610 (37.1)	21 (19.8)	631 (36)
West Bengal	79395 (84.6)	6058 (75.7)	85453 (83.9)	10784 (13.6)	587 (9.7)	11371 (13.3)	3814 (35.4)	218 (37.1)	4032 (35.5)
India	**1448433 (78.1)**	**348682 (61.4)**	**1797115 (74.2)**	**121545 (8.4)**	**8068 (2.3)**	**129613 (7.2)**	**40900 (33.7)**	**2535 (31.4)**	**43435 (33.5)**

2.13 TB - COVID

State	TB notified patients screened for COVID-19 disease, n (% of notified)			TB-COVID 19 patients detected, n (% of those screened)		
	Public	Private	Total	Public	Private	Total
Andaman & Nicobar Islands	322 (59.2)	1 (25)	323 (58.9)	0 (0)	0 (0)	0 (0)
Andhra Pradesh	63319 (95.8)	26410 (97.9)	89729 (96.4)	97 (0.15)	17 (0.06)	114 (0.13)
Arunachal Pradesh	1761 (58.5)	3 (50)	1764 (58.5)	0 (0)	0 (0)	0 (0)
Assam	22499 (53.6)	3716 (62.7)	26215 (54.7)	31 (0.14)	16 (0.43)	47 (0.18)
Bihar	45627 (56.1)	17720 (21)	63347 (38.2)	78 (0.17)	53 (0.3)	131 (0.21)
Chandigarh	3487 (93.8)	46 (71.9)	3533 (93.4)	8 (0.23)	0 (0)	8 (0.23)
Chhattisgarh	20452 (69.4)	5643 (60.8)	26095 (67.4)	57 (0.28)	8 (0.14)	65 (0.25)
Dadra and Nagar Haveli and Daman and Diu	422 (49.9)	48 (63.2)	470 (51)	1 (0.24)	0 (0)	1 (0.21)
Delhi	43512 (55.8)	1605 (15.7)	45117 (51.1)	44 (0.1)	5 (0.31)	49 (0.11)
Goa	964 (57.5)	35 (8.8)	999 (48.2)	12 (1.24)	0 (0)	12 (1.2)
Gujarat	86416 (79.5)	30358 (76.9)	116774 (78.8)	105 (0.12)	19 (0.06)	124 (0.11)
Haryana	45765 (74.7)	11075 (63.7)	56840 (72.3)	44 (0.1)	9 (0.08)	53 (0.09)
Himachal Pradesh	9065 (56.6)	301 (64.3)	9366 (56.8)	42 (0.46)	1 (0.33)	43 (0.46)
Jammu & Kashmir	10426 (91.6)	530 (91.1)	10956 (91.6)	9 (0.09)	1 (0.19)	10 (0.09)
Jharkhand	35654 (75.9)	3868 (33.6)	39522 (67.6)	40 (0.11)	14 (0.36)	54 (0.14)
Karnataka	51965 (77.1)	7969 (67.7)	59934 (75.7)	162 (0.31)	17 (0.21)	179 (0.3)
Kerala	14362 (69.7)	1989 (68.6)	16351 (69.5)	322 (2.24)	37 (1.86)	359 (2.2)
Ladakh	171 (51.2)	9 (81.8)	180 (52.2)	0 (0)	0 (0)	0 (0)
Lakshadweep	21 (95.5)	0 (NA)	21 (95.5)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	52518 (37.6)	10195 (20.7)	62713 (33.2)	146 (0.28)	26 (0.26)	172 (0.27)
Maharashtra	114596 (75.2)	48387 (62.6)	162983 (70.9)	322 (0.28)	73 (0.15)	395 (0.24)
Manipur	1119 (47.2)	108 (42)	1227 (46.7)	4 (0.36)	0 (0)	4 (0.33)

State	TB notified patients screened for COVID-19 disease, n (% of notified)			TB-COVID 19 patients detected, n (% of those screened)		
	Public	Private	Total	Public	Private	Total
Meghalaya	1500 (32.3)	90 (28)	1590 (32)	3 (0.2)	0 (0)	3 (0.19)
Mizoram	1929 (92.5)	20 (100)	1949 (92.5)	3 (0.16)	0 (0)	3 (0.15)
Nagaland	1240 (32.6)	11 (2.9)	1251 (29.9)	1 (0.08)	0 (0)	1 (0.08)
Odisha	47179 (84.9)	3537 (80.5)	50716 (84.6)	85 (0.18)	2 (0.06)	87 (0.17)
Puducherry	1136 (74.5)	1 (50)	1137 (74.5)	16 (1.41)	0 (0)	16 (1.41)
Punjab	31953 (66.9)	4925 (50.2)	36878 (64.1)	45 (0.14)	7 (0.14)	52 (0.14)
Rajasthan	68014 (51.7)	18509 (47.9)	86523 (50.8)	71 (0.1)	12 (0.06)	83 (0.1)
Sikkim	544 (40.7)	18 (24.3)	562 (39.8)	4 (0.74)	0 (0)	4 (0.71)
Tamil Nadu	66452 (84.9)	9411 (53.3)	75863 (79.1)	178 (0.27)	18 (0.19)	196 (0.26)
Telangana	50592 (92.8)	17082 (91.4)	67674 (92.4)	53 (0.1)	45 (0.26)	98 (0.14)
Tripura	1511 (46.4)	8 (20)	1519 (46.1)	2 (0.13)	0 (0)	2 (0.13)
Uttar Pradesh	289144 (69)	49701 (42.6)	338845 (63.2)	191 (0.07)	20 (0.04)	211 (0.06)
Uttarakhand	19405 (85.4)	3632 (78.1)	23037 (84.2)	43 (0.22)	4 (0.11)	47 (0.2)
West Bengal	74830 (79.7)	5588 (69.9)	80418 (78.9)	214 (0.29)	29 (0.52)	243 (0.3)
India	**1279872 (69)**	**282549 (49.8)**	**1562421 (64.5)**	**2433 (0.19)**	**433 (0.15)**	**2866 (0.18)**

3.1 TREATMENT OUTCOME OF TB PATIENTS NOTIFIED IN 2021 (PUBLIC SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	479	167 (34.9)	416 (86.8)	12 (2.5)	12 (2.5)	2 (0.4)	10 (2.1)	3 (0.6)
Andhra Pradesh	60910	31713 (52.1)	55708 (91.5)	1985 (3.3)	145 (0.2)	155 (0.3)	1347 (2.2)	81 (0.1)
Arunachal Pradesh	2726	884 (32.4)	2163 (79.3)	73 (2.7)	180 (6.6)	18 (0.7)	61 (2.2)	34 (1.2)
Assam	33440	9137 (27.3)	29435 (88)	1454 (4.3)	670 (2)	174 (0.5)	307 (0.9)	98 (0.3)
Bihar	62425	15688 (25.1)	47454 (76)	1653 (2.6)	2588 (4.1)	354 (0.6)	802 (1.3)	2454 (3.9)
Chandigarh	3042	1055 (34.7)	2588 (85.1)	116 (3.8)	95 (3.1)	31 (1)	67 (2.2)	16 (0.5)
Chhattisgarh	24944	10095 (40.5)	21449 (86)	1447 (5.8)	355 (1.4)	147 (0.6)	343 (1.4)	440 (1.8)
Dadra and Nagar Haveli and Daman and Diu	681	268 (39.4)	627 (92.1)	29 (4.3)	2 (0.3)	2 (0.3)	4 (0.6)	2 (0.3)
Delhi	65432	15850 (24.2)	50872 (77.7)	1679 (2.6)	3174 (4.9)	508 (0.8)	1512 (2.3)	905 (1.4)
Goa	1555	442 (28.4)	1206 (77.6)	151 (9.7)	57 (3.7)	12 (0.8)	40 (2.6)	1 (0.1)
Gujarat	97670	38688 (39.6)	85675 (87.7)	5596 (5.7)	1316 (1.3)	889 (0.9)	1911 (2)	259 (0.3)
Haryana	50898	20817 (40.9)	42415 (83.3)	2344 (4.6)	924 (1.8)	336 (0.7)	602 (1.2)	689 (1.4)
Himachal Pradesh	13982	6019 (43)	12268 (87.7)	866 (6.2)	139 (1)	58 (0.4)	240 (1.7)	26 (0.2)
Jammu & Kashmir	10279	3855 (37.5)	8815 (85.8)	397 (3.9)	167 (1.6)	69 (0.7)	88 (0.9)	98 (1)
Jharkhand	36165	12966 (35.9)	31736 (87.8)	1118 (3.1)	851 (2.4)	221 (0.6)	264 (0.7)	605 (1.7)
Karnataka	57309	27008 (47.1)	47044 (82.1)	4719 (8.2)	1530 (2.7)	375 (0.7)	1449 (2.5)	187 (0.3)
Kerala	18765	7931 (42.3)	15159 (80.8)	1484 (7.9)	392 (2.1)	139 (0.7)	252 (1.3)	521 (2.8)
Ladakh	295	120 (40.7)	242 (82)	21 (7.1)	4 (1.4)	2 (0.7)	3 (1)	4 (1.4)
Lakshadweep	20	10 (50)	18 (90)	1 (5)	0 (0)	0 (0)	0 (0)	1 (5)
Madhya Pradesh	118760	30776 (25.9)	101006 (85.1)	4957 (4.2)	4006 (3.4)	906 (0.8)	1294 (1.1)	2132 (1.8)
Maharashtra	113920	35151 (30.9)	97090 (85.2)	5199 (4.6)	2074 (1.8)	684 (0.6)	3743 (3.3)	356 (0.3)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Manipur	1632	741 (45.4)	1312 (80.4)	70 (4.3)	55 (3.4)	8 (0.5)	44 (2.7)	51 (3.1)
Meghalaya	3553	1310 (36.9)	2989 (84.1)	176 (5)	72 (2)	21 (0.6)	107 (3)	6 (0.2)
Mizoram	1483	507 (34.2)	1308 (88.2)	62 (4.2)	28 (1.9)	16 (1.1)	7 (0.5)	9 (0.6)
Nagaland	3102	1432 (46.2)	2666 (85.9)	85 (2.7)	84 (2.7)	39 (1.3)	17 (0.5)	130 (4.2)
Odisha	47936	21931 (45.8)	42937 (89.6)	2874 (6)	470 (1)	80 (0.2)	253 (0.5)	338 (0.7)
Puducherry	1369	593 (43.3)	1103 (80.6)	74 (5.4)	33 (2.4)	24 (1.8)	30 (2.2)	2 (0.1)
Punjab	38948	13740 (35.3)	32547 (83.6)	1864 (4.8)	1117 (2.9)	265 (0.7)	406 (1)	327 (0.8)
Rajasthan	104621	36326 (34.7)	88481 (84.6)	3738 (3.6)	2875 (2.7)	602 (0.6)	1413 (1.4)	788 (0.8)
Sikkim	1103	488 (44.2)	967 (87.7)	45 (4.1)	15 (1.4)	2 (0.2)	22 (2)	7 (0.6)
Tamil Nadu	66774	32559 (48.8)	55491 (83.1)	4393 (6.6)	1704 (2.6)	421 (0.6)	1497 (2.2)	446 (0.7)
Telangana	42822	21309 (49.8)	38805 (90.6)	1340 (3.1)	316 (0.7)	209 (0.5)	562 (1.3)	437 (1)
Tripura	2717	1153 (42.4)	2318 (85.3)	166 (6.1)	58 (2.1)	11 (0.4)	52 (1.9)	22 (0.8)
Uttar Pradesh	338804	100673 (29.7)	290244 (85.7)	12486 (3.7)	7693 (2.3)	1735 (0.5)	4962 (1.5)	1724 (0.5)
Uttarakhand	18830	5736 (30.5)	16188 (86)	783 (4.2)	463 (2.5)	148 (0.8)	272 (1.4)	94 (0.5)
West Bengal	80073	40406 (50.5)	67498 (84.3)	4528 (5.7)	1558 (1.9)	596 (0.7)	1257 (1.6)	839 (1)
India	**1527464**	**547544 (35.8)**	**1298240 (85)**	**67985 (4.5)**	**35222 (2.3)**	**9259 (0.6)**	**25240 (1.7)**	**14132 (0.9)**

3.2 TREATMENT OUTCOME OF TB PATIENTS NOTIFIED IN 2021 (PRIVATE SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	1	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Andhra Pradesh	24290	3210 (13.2)	23613 (97.2)	238 (1)	41 (0.2)	34 (0.1)	239 (1)	19 (0.1)
Assam	4113	331 (8)	3656 (88.9)	195 (4.7)	62 (1.5)	28 (0.7)	15 (0.4)	7 (0.2)
Bihar	70993	533 (0.8)	61796 (87)	3228 (4.5)	2568 (3.6)	256 (0.4)	469 (0.7)	1356 (1.9)
Chandigarh	103	15 (14.6)	58 (56.3)	1 (1)	2 (1.9)	0 (0)	1 (1)	6 (5.8)
Chhattisgarh	7240	514 (7.1)	6197 (85.6)	399 (5.5)	272 (3.8)	29 (0.4)	59 (0.8)	101 (1.4)
Dadra and Nagar Haveli and Daman and Diu	49	5 (10.2)	48 (98)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)
Delhi	16845	257 (1.5)	10119 (60.1)	618 (3.7)	1134 (6.7)	43 (0.3)	96 (0.6)	337 (2)
Goa	393	10 (2.5)	354 (90.1)	24 (6.1)	4 (1)	3 (0.8)	3 (0.8)	1 (0.3)
Gujarat	40400	458 (1.1)	36846 (91.2)	1250 (3.1)	1137 (2.8)	126 (0.3)	347 (0.9)	277 (0.7)
Haryana	18697	1896 (10.1)	15682 (83.9)	721 (3.9)	528 (2.8)	66 (0.4)	107 (0.6)	700 (3.7)
Himachal Pradesh	550	123 (22.4)	463 (84.2)	25 (4.5)	11 (2)	10 (1.8)	2 (0.4)	1 (0.2)
Jammu & Kashmir	630	140 (22.2)	578 (91.7)	20 (3.2)	10 (1.6)	2 (0.3)	3 (0.5)	5 (0.8)
Jharkhand	16628	80 (0.5)	13936 (83.8)	708 (4.3)	1662 (10)	14 (0.1)	56 (0.3)	79 (0.5)
Karnataka	12096	1514 (12.5)	10243 (84.7)	517 (4.3)	228 (1.9)	38 (0.3)	99 (0.8)	142 (1.2)
Kerala	3121	553 (17.7)	2235 (71.6)	295 (9.5)	89 (2.9)	16 (0.5)	28 (0.9)	127 (4.1)
Ladakh	25	4 (16)	21 (84)	1 (4)	0 (0)	0 (0)	0 (0)	1 (4)
Madhya Pradesh	47338	4041 (8.5)	39732 (83.9)	1686 (3.6)	3330 (7)	197 (0.4)	321 (0.7)	843 (1.8)
Maharashtra	68634	3478 (5.1)	61438 (89.5)	2610 (3.8)	740 (1.1)	209 (0.3)	1378 (2)	145 (0.2)
Manipur	183	41 (22.4)	130 (71)	3 (1.6)	6 (3.3)	1 (0.5)	3 (1.6)	2 (1.1)
Meghalaya	363	4 (1.1)	333 (91.7)	4 (1.1)	11 (3)	0 (0)	1 (0.3)	0 (0)
Mizoram	187	77 (41.2)	169 (90.4)	10 (5.3)	5 (2.7)	0 (0)	0 (0)	0 (0)
Nagaland	534	11 (2.1)	456 (85.4)	28 (5.2)	22 (4.1)	0 (0)	0 (0)	21 (3.9)
Odisha	3852	388 (10.1)	3536 (91.8)	99 (2.6)	28 (0.7)	5 (0.1)	9 (0.2)	52 (1.3)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Punjab	13305	467 (3.5)	11545 (86.8)	755 (5.7)	202 (1.5)	67 (0.5)	65 (0.5)	60 (0.5)
Rajasthan	43316	2013 (4.6)	37537 (86.7)	1114 (2.6)	2195 (5.1)	196 (0.5)	233 (0.5)	726 (1.7)
Sikkim	84	31 (36.9)	79 (94)	2 (2.4)	3 (3.6)	0 (0)	0 (0)	0 (0)
Tamil Nadu	15910	2126 (13.4)	13220 (83.1)	573 (3.6)	614 (3.9)	43 (0.3)	142 (0.9)	384 (2.4)
Telangana	16793	3515 (20.9)	15538 (92.5)	419 (2.5)	112 (0.7)	59 (0.4)	77 (0.5)	139 (0.8)
Tripura	12	3 (25)	10 (83.3)	1 (8.3)	0 (0)	0 (0)	0 (0)	1 (8.3)
Uttar Pradesh	114690	3766 (3.3)	100899 (88)	4014 (3.5)	3634 (3.2)	539 (0.5)	1055 (0.9)	983 (0.9)
Uttarakhand	4401	105 (2.4)	3961 (90)	80 (1.8)	103 (2.3)	20 (0.5)	19 (0.4)	27 (0.6)
West Bengal	9204	1785 (19.4)	6934 (75.3)	435 (4.7)	152 (1.7)	48 (0.5)	80 (0.9)	481 (5.2)
India	**554980**	**31494 (5.7)**	**481362 (86.7)**	**20075 (3.6)**	**18905 (3.4)**	**2049 (0.4)**	**4907 (0.9)**	**7023 (1.3)**

3.3 TREATMENT OUTCOME OF TB PATIENTS NOTIFIED IN 2021 (TOTAL)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	480	167 (34.8)	416 (86.7)	13 (2.7)	12 (2.5)	2 (0.4)	10 (2.1)	3 (0.6)
Andhra Pradesh	85200	34923 (41)	79321 (93.1)	2223 (2.6)	186 (0.2)	189 (0.2)	1586 (1.9)	100 (0.1)
Arunachal Pradesh	2726	884 (32.4)	2163 (79.3)	73 (2.7)	180 (6.6)	18 (0.7)	61 (2.2)	34 (1.2)
Assam	37553	9468 (25.2)	33091 (88.1)	1649 (4.4)	732 (1.9)	202 (0.5)	322 (0.9)	105 (0.3)
Bihar	133418	16221 (12.2)	109250 (81.9)	4881 (3.7)	5156 (3.9)	610 (0.5)	1271 (1)	3810 (2.9)
Chandigarh	3145	1070 (34)	2646 (84.1)	117 (3.7)	97 (3.1)	31 (1)	68 (2.2)	22 (0.7)
Chhattisgarh	32184	10609 (33)	27646 (85.9)	1846 (5.7)	627 (1.9)	176 (0.5)	402 (1.2)	541 (1.7)
Dadra and Nagar Haveli and Daman and Diu	730	273 (37.4)	675 (92.5)	30 (4.1)	2 (0.3)	2 (0.3)	4 (0.5)	2 (0.3)
Delhi	82277	16107 (19.6)	60991 (74.1)	2297 (2.8)	4308 (5.2)	551 (0.7)	1608 (2)	1242 (1.5)
Goa	1948	452 (23.2)	1560 (80.1)	175 (9)	61 (3.1)	15 (0.8)	43 (2.2)	2 (0.1)
Gujarat	138070	39146 (28.4)	122521 (88.7)	6846 (5)	2453 (1.8)	1015 (0.7)	2258 (1.6)	536 (0.4)
Haryana	69595	22713 (32.6)	58097 (83.5)	3065 (4.4)	1452 (2.1)	402 (0.6)	709 (1)	1389 (2)
Himachal Pradesh	14532	6142 (42.3)	12731 (87.6)	891 (6.1)	150 (1)	68 (0.5)	242 (1.7)	27 (0.2)
Jammu & Kashmir	10909	3995 (36.6)	9393 (86.1)	417 (3.8)	177 (1.6)	71 (0.7)	91 (0.8)	103 (0.9)
Jharkhand	52793	13046 (24.7)	45672 (86.5)	1826 (3.5)	2513 (4.8)	235 (0.4)	320 (0.6)	684 (1.3)
Karnataka	69405	28522 (41.1)	57287 (82.5)	5236 (7.5)	1758 (2.5)	413 (0.6)	1548 (2.2)	329 (0.5)
Kerala	21886	8484 (38.8)	17394 (79.5)	1779 (8.1)	481 (2.2)	155 (0.7)	280 (1.3)	648 (3)
Ladakh	320	124 (38.8)	263 (82.2)	22 (6.9)	4 (1.3)	2 (0.6)	3 (0.9)	5 (1.6)
Lakshadweep	20	10 (50)	18 (90)	1 (5)	0 (0)	0 (0)	0 (0)	1 (5)
Madhya Pradesh	166098	34817 (21)	140738 (84.7)	6643 (4)	7336 (4.4)	1103 (0.7)	1615 (1)	2975 (1.8)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Maharashtra	182554	38629 (21.2)	158528 (86.8)	7809 (4.3)	2814 (1.5)	893 (0.5)	5121 (2.8)	501 (0.3)
Manipur	1815	782 (43.1)	1442 (79.4)	73 (4)	61 (3.4)	9 (0.5)	47 (2.6)	53 (2.9)
Meghalaya	3916	1314 (33.6)	3322 (84.8)	180 (4.6)	83 (2.1)	21 (0.5)	108 (2.8)	6 (0.2)
Mizoram	1670	584 (35)	1477 (88.4)	72 (4.3)	33 (2)	16 (1)	7 (0.4)	9 (0.5)
Nagaland	3636	1443 (39.7)	3122 (85.9)	113 (3.1)	106 (2.9)	39 (1.1)	17 (0.5)	151 (4.2)
Odisha	51788	22319 (43.1)	46473 (89.7)	2973 (5.7)	498 (1)	85 (0.2)	262 (0.5)	390 (0.8)
Puducherry	1369	593 (43.3)	1103 (80.6)	74 (5.4)	33 (2.4)	24 (1.8)	30 (2.2)	2 (0.1)
Punjab	52253	14207 (27.2)	44092 (84.4)	2619 (5)	1319 (2.5)	332 (0.6)	471 (0.9)	387 (0.7)
Rajasthan	147937	38339 (25.9)	126018 (85.2)	4852 (3.3)	5070 (3.4)	798 (0.5)	1646 (1.1)	1514 (1)
Sikkim	1187	519 (43.7)	1046 (88.1)	47 (4)	18 (1.5)	2 (0.2)	22 (1.9)	7 (0.6)
Tamil Nadu	82684	34685 (41.9)	68711 (83.1)	4966 (6)	2318 (2.8)	464 (0.6)	1639 (2)	830 (1)
Telangana	59615	24824 (41.6)	54343 (91.2)	1759 (3)	428 (0.7)	268 (0.4)	639 (1.1)	576 (1)
Tripura	2729	1156 (42.4)	2328 (85.3)	167 (6.1)	58 (2.1)	11 (0.4)	52 (1.9)	23 (0.8)
Uttar Pradesh	453494	104439 (23)	391143 (86.3)	16500 (3.6)	11327 (2.5)	2274 (0.5)	6017 (1.3)	2707 (0.6)
Uttarakhand	23231	5841 (25.1)	20149 (86.7)	863 (3.7)	566 (2.4)	168 (0.7)	291 (1.3)	121 (0.5)
West Bengal	89277	42191 (47.3)	74432 (83.4)	4963 (5.6)	1710 (1.9)	644 (0.7)	1337 (1.5)	1320 (1.5)
India	**2082444**	**579038 (27.8)**	**1779602 (85.5)**	**88060 (4.2)**	**54127 (2.6)**	**11308 (0.5)**	**30147 (1.4)**	**21155 (1)**

3.4 TREATMENT OUTCOME OF NEW TB PATIENTS NOTIFIED IN 2021 (PUBLIC SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	444	151 (34)	386 (86.9)	11 (2.5)	10 (2.3)	2 (0.5)	9 (2)	3 (0.7)
Andhra Pradesh	52418	27404 (52.3)	48108 (91.8)	1692 (3.2)	112 (0.2)	125 (0.2)	1047 (2)	72 (0.1)
Arunachal Pradesh	2390	750 (31.4)	1916 (80.2)	59 (2.5)	156 (6.5)	17 (0.7)	50 (2.1)	27 (1.1)
Assam	30107	8200 (27.2)	26555 (88.2)	1296 (4.3)	604 (2)	140 (0.5)	263 (0.9)	77 (0.3)
Bihar	54765	13860 (25.3)	41914 (76.5)	1432 (2.6)	2284 (4.2)	304 (0.6)	696 (1.3)	2197 (4)
Chandigarh	2617	871 (33.3)	2246 (85.8)	89 (3.4)	78 (3)	20 (0.8)	57 (2.2)	13 (0.5)
Chhattisgarh	22574	9107 (40.3)	19453 (86.2)	1313 (5.8)	310 (1.4)	117 (0.5)	302 (1.3)	381 (1.7)
Dadra and Nagar Haveli and Daman and Diu	588	233 (39.6)	549 (93.4)	20 (3.4)	2 (0.3)	2 (0.3)	4 (0.7)	0 (0)
Delhi	55689	12563 (22.6)	43502 (78.1)	1270 (2.3)	2629 (4.7)	382 (0.7)	1143 (2.1)	772 (1.4)
Goa	1426	395 (27.7)	1111 (77.9)	141 (9.9)	45 (3.2)	9 (0.6)	36 (2.5)	1 (0.1)
Gujarat	74625	28940 (38.8)	66354 (88.9)	4082 (5.5)	949 (1.3)	462 (0.6)	1045 (1.4)	194 (0.3)
Haryana	43430	17292 (39.8)	36358 (83.7)	1903 (4.4)	792 (1.8)	249 (0.6)	452 (1)	571 (1.3)
Himachal Pradesh	12142	5018 (41.3)	10662 (87.8)	745 (6.1)	125 (1)	45 (0.4)	203 (1.7)	16 (0.1)
Jammu & Kashmir	9135	3251 (35.6)	7840 (85.8)	337 (3.7)	143 (1.6)	55 (0.6)	75 (0.8)	81 (0.9)
Jharkhand	32974	11948 (36.2)	29016 (88)	1022 (3.1)	769 (2.3)	195 (0.6)	233 (0.7)	549 (1.7)
Karnataka	50259	23248 (46.3)	41575 (82.7)	4003 (8)	1284 (2.6)	251 (0.5)	1227 (2.4)	154 (0.3)
Kerala	17505	7344 (42)	14228 (81.3)	1366 (7.8)	357 (2)	113 (0.6)	207 (1.2)	485 (2.8)

3.5 Treatment outcome of previously treated TB patients notified in 2021 (Public Sector)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Ladakh	254	101 (39.8)	206 (81.1)	20 (7.9)	4 (1.6)	1 (0.4)	3 (1.2)	3 (1.2)
Lakshadweep	18	8 (44.4)	16 (88.9)	1 (5.6)	0 (0)	0 (0)	0 (0)	1 (5.6)
Madhya Pradesh	102034	25847 (25.3)	86991 (85.3)	4201 (4.1)	3448 (3.4)	704 (0.7)	975 (1)	1813 (1.8)
Maharashtra	99145	30222 (30.5)	84975 (85.7)	4384 (4.4)	1653 (1.7)	518 (0.5)	3152 (3.2)	293 (0.3)
Manipur	1456	665 (45.7)	1175 (80.7)	63 (4.3)	50 (3.4)	6 (0.4)	37 (2.5)	39 (2.7)
Meghalaya	3182	1174 (36.9)	2693 (84.6)	153 (4.8)	56 (1.8)	13 (0.4)	98 (3.1)	5 (0.2)
Mizoram	1302	439 (33.7)	1156 (88.8)	51 (3.9)	23 (1.8)	11 (0.8)	5 (0.4)	7 (0.5)
Nagaland	2714	1211 (44.6)	2336 (86.1)	76 (2.8)	72 (2.7)	32 (1.2)	11 (0.4)	114 (4.2)
Odisha	44169	20238 (45.8)	39693 (89.9)	2570 (5.8)	416 (0.9)	67 (0.2)	205 (0.5)	312 (0.7)
Puducherry	1252	544 (43.5)	1024 (81.8)	67 (5.4)	26 (2.1)	11 (0.9)	25 (2)	2 (0.2)
Punjab	34122	11568 (33.9)	28677 (84)	1550 (4.5)	935 (2.7)	217 (0.6)	308 (0.9)	287 (0.8)
Rajasthan	87692	29416 (33.5)	74832 (85.3)	2904 (3.3)	2412 (2.8)	431 (0.5)	1044 (1.2)	658 (0.8)
Sikkim	986	426 (43.2)	869 (88.1)	39 (4)	13 (1.3)	2 (0.2)	20 (2)	6 (0.6)
Tamil Nadu	59166	28505 (48.2)	49549 (83.7)	3782 (6.4)	1368 (2.3)	294 (0.5)	1219 (2.1)	388 (0.7)
Telangana	37458	18600 (49.7)	34143 (91.2)	1130 (3)	222 (0.6)	148 (0.4)	468 (1.2)	370 (1)
Tripura	2461	1044 (42.4)	2114 (85.9)	141 (5.7)	53 (2.2)	9 (0.4)	47 (1.9)	19 (0.8)
Uttar Pradesh	298133	86807 (29.1)	256647 (86.1)	10773 (3.6)	6804 (2.3)	1419 (0.5)	3819 (1.3)	1495 (0.5)
Uttarakhand	16666	4885 (29.3)	14342 (86.1)	673 (4)	406 (2.4)	127 (0.8)	217 (1.3)	84 (0.5)
West Bengal	71417	35914 (50.3)	60528 (84.8)	4021 (5.6)	1323 (1.9)	440 (0.6)	1012 (1.4)	762 (1.1)
India	**1326715**	**468189 (35.3)**	**1133739 (85.5)**	**57380 (4.3)**	**29933 (2.3)**	**6938 (0.5)**	**19714 (1.5)**	**12251 (0.9)**

3.5 TREATMENT OUTCOME OF PREVIOUSLY TREATED TB PATIENTS NOTIFIED IN 2021 (PUBLIC SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	35	16 (45.7)	30 (85.7)	1 (2.9)	2 (5.7)	0 (0)	1 (2.9)	0 (0)
Andhra Pradesh	8492	4309 (50.7)	7600 (89.5)	293 (3.5)	33 (0.4)	30 (0.4)	300 (3.5)	9 (0.1)
Arunachal Pradesh	336	134 (39.9)	247 (73.5)	14 (4.2)	24 (7.1)	1 (0.3)	11 (3.3)	7 (2.1)
Assam	3333	937 (28.1)	2880 (86.4)	158 (4.7)	66 (2)	34 (1)	44 (1.3)	21 (0.6)
Bihar	7660	1828 (23.9)	5540 (72.3)	221 (2.9)	304 (4)	50 (0.7)	106 (1.4)	257 (3.4)
Chandigarh	425	184 (43.3)	342 (80.5)	27 (6.4)	17 (4)	11 (2.6)	10 (2.4)	3 (0.7)
Chhattisgarh	2370	988 (41.7)	1996 (84.2)	134 (5.7)	45 (1.9)	30 (1.3)	41 (1.7)	59 (2.5)
Dadra and Nagar Haveli and Daman and Diu	93	35 (37.6)	78 (83.9)	9 (9.7)	0 (0)	0 (0)	0 (0)	2 (2.2)
Delhi	9743	3287 (33.7)	7370 (75.6)	409 (4.2)	545 (5.6)	126 (1.3)	369 (3.8)	133 (1.4)
Goa	129	47 (36.4)	95 (73.6)	10 (7.8)	12 (9.3)	3 (2.3)	4 (3.1)	0 (0)
Gujarat	23045	9748 (42.3)	19321 (83.8)	1514 (6.6)	367 (1.6)	427 (1.9)	866 (3.8)	65 (0.3)
Haryana	7468	3525 (47.2)	6057 (81.1)	441 (5.9)	132 (1.8)	87 (1.2)	150 (2)	118 (1.6)
Himachal Pradesh	1840	1001 (54.4)	1606 (87.3)	121 (6.6)	14 (0.8)	13 (0.7)	37 (2)	10 (0.5)
Jammu & Kashmir	1144	604 (52.8)	975 (85.2)	60 (5.2)	24 (2.1)	14 (1.2)	13 (1.1)	17 (1.5)
Jharkhand	3191	1018 (31.9)	2720 (85.2)	96 (3)	82 (2.6)	26 (0.8)	31 (1)	56 (1.8)
Karnataka	7050	3760 (53.3)	5469 (77.6)	716 (10.2)	246 (3.5)	124 (1.8)	222 (3.1)	33 (0.5)
Kerala	1260	587 (46.6)	931 (73.9)	118 (9.4)	35 (2.8)	26 (2.1)	45 (3.6)	36 (2.9)
Ladakh	41	19 (46.3)	36 (87.8)	1 (2.4)	0 (0)	1 (2.4)	0 (0)	1 (2.4)
Lakshadweep	2	2 (100)	2 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	16726	4929 (29.5)	14015 (83.8)	756 (4.5)	558 (3.3)	202 (1.2)	319 (1.9)	319 (1.9)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Maharashtra	14775	4929 (33.4)	12115 (82)	815 (5.5)	421 (2.8)	166 (1.1)	591 (4)	63 (0.4)
Manipur	176	76 (43.2)	137 (77.8)	7 (4)	5 (2.8)	2 (1.1)	7 (4)	12 (6.8)
Meghalaya	371	136 (36.7)	296 (79.8)	23 (6.2)	16 (4.3)	8 (2.2)	9 (2.4)	1 (0.3)
Mizoram	181	68 (37.6)	152 (84)	11 (6.1)	5 (2.8)	5 (2.8)	2 (1.1)	2 (1.1)
Nagaland	388	221 (57)	330 (85.1)	9 (2.3)	12 (3.1)	7 (1.8)	6 (1.5)	16 (4.1)
Odisha	3767	1693 (44.9)	3244 (86.1)	304 (8.1)	54 (1.4)	13 (0.3)	48 (1.3)	26 (0.7)
Puducherry	117	49 (41.9)	79 (67.5)	7 (6)	7 (6)	13 (11.1)	5 (4.3)	0 (0)
Punjab	4826	2172 (45)	3870 (80.2)	314 (6.5)	182 (3.8)	48 (1)	98 (2)	40 (0.8)
Rajasthan	16929	6910 (40.8)	13649 (80.6)	834 (4.9)	463 (2.7)	171 (1)	369 (2.2)	130 (0.8)
Sikkim	117	62 (53)	98 (83.8)	6 (5.1)	2 (1.7)	0 (0)	2 (1.7)	1 (0.9)
Tamil Nadu	7608	4054 (53.3)	5942 (78.1)	611 (8)	336 (4.4)	127 (1.7)	278 (3.7)	58 (0.8)
Telangana	5364	2709 (50.5)	4662 (86.9)	210 (3.9)	94 (1.8)	61 (1.1)	94 (1.8)	67 (1.2)
Tripura	256	109 (42.6)	204 (79.7)	25 (9.8)	5 (2)	2 (0.8)	5 (2)	3 (1.2)
Uttar Pradesh	40671	13866 (34.1)	33597 (82.6)	1713 (4.2)	889 (2.2)	316 (0.8)	1143 (2.8)	229 (0.6)
Uttarakhand	2164	851 (39.3)	1846 (85.3)	110 (5.1)	57 (2.6)	21 (1)	55 (2.5)	10 (0.5)
West Bengal	8656	4492 (51.9)	6970 (80.5)	507 (5.9)	235 (2.7)	156 (1.8)	245 (2.8)	77 (0.9)
India	**200749**	**79355 (39.5)**	**164501 (81.9)**	**10605 (5.3)**	**5289 (2.6)**	**2321 (1.2)**	**5526 (2.8)**	**1881 (0.9)**

3.6 TREATMENT OUTCOME OF TB - HIV PATIENTS NOTIFIED IN 2021 (TOTAL)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	21	4 (19)	18 (85.7)	0 (0)	0 (0)	0 (0)	1 (4.8)	0 (0)
Andhra Pradesh	1626	307 (18.9)	1554 (95.6)	23 (1.4)	1 (0.1)	3 (0.2)	6 (0.4)	2 (0.1)
Arunachal Pradesh	265	43 (16.2)	219 (82.6)	3 (1.1)	15 (5.7)	1 (0.4)	6 (2.3)	3 (1.1)
Assam	1031	181 (17.6)	912 (88.5)	34 (3.3)	12 (1.2)	5 (0.5)	9 (0.9)	3 (0.3)
Bihar	3089	463 (15)	2435 (78.8)	51 (1.7)	109 (3.5)	17 (0.6)	31 (1)	135 (4.4)
Chandigarh	250	48 (19.2)	215 (86)	3 (1.2)	6 (2.4)	4 (1.6)	3 (1.2)	6 (2.4)
Chhattisgarh	888	169 (19)	799 (90)	28 (3.2)	9 (1)	6 (0.7)	0 (0)	23 (2.6)
Dadra and Nagar Haveli and Daman and Diu	38	9 (23.7)	38 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Delhi	7932	1033 (13)	6495 (81.9)	93 (1.2)	201 (2.5)	55 (0.7)	119 (1.5)	107 (1.3)
Goa	54	5 (9.3)	46 (85.2)	1 (1.9)	0 (0)	1 (1.9)	0 (0)	0 (0)
Gujarat	3501	530 (15.1)	3203 (91.5)	136 (3.9)	35 (1)	16 (0.5)	27 (0.8)	9 (0.3)
Haryana	2630	663 (25.2)	2322 (88.3)	35 (1.3)	28 (1.1)	16 (0.6)	18 (0.7)	29 (1.1)
Himachal Pradesh	441	98 (22.2)	404 (91.6)	12 (2.7)	5 (1.1)	0 (0)	3 (0.7)	1 (0.2)
Jammu & Kashmir	516	118 (22.9)	465 (90.1)	8 (1.6)	11 (2.1)	3 (0.6)	2 (0.4)	5 (1)
Jharkhand	1141	246 (21.6)	1006 (88.2)	19 (1.7)	32 (2.8)	6 (0.5)	6 (0.5)	20 (1.8)
Karnataka	2188	410 (18.7)	1988 (90.9)	68 (3.1)	48 (2.2)	1 (0)	19 (0.9)	7 (0.3)
Kerala	572	66 (11.5)	513 (89.7)	5 (0.9)	11 (1.9)	3 (0.5)	4 (0.7)	19 (3.3)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Ladakh	4	1 (25)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Lakshadweep	1	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	8687	771 (8.9)	7946 (91.5)	141 (1.6)	206 (2.4)	29 (0.3)	42 (0.5)	125 (1.4)
Maharashtra	6407	1008 (15.7)	5691 (88.8)	107 (1.7)	66 (1)	26 (0.4)	225 (3.5)	12 (0.2)
Manipur	49	10 (20.4)	41 (83.7)	2 (4.1)	2 (4.1)	0 (0)	0 (0)	0 (0)
Meghalaya	208	51 (24.5)	187 (89.9)	6 (2.9)	1 (0.5)	0 (0)	5 (2.4)	0 (0)
Mizoram	62	8 (12.9)	58 (93.5)	1 (1.6)	1 (1.6)	0 (0)	0 (0)	0 (0)
Nagaland	169	50 (29.6)	136 (80.5)	4 (2.4)	4 (2.4)	3 (1.8)	0 (0)	14 (8.3)
Odisha	1681	320 (19)	1553 (92.4)	57 (3.4)	9 (0.5)	1 (0.1)	2 (0.1)	10 (0.6)
Puducherry	47	5 (10.6)	44 (93.6)	0 (0)	0 (0)	0 (0)	1 (2.1)	0 (0)
Punjab	2130	488 (22.9)	1888 (88.6)	53 (2.5)	44 (2.1)	13 (0.6)	15 (0.7)	11 (0.5)
Rajasthan	4088	694 (17)	3619 (88.5)	90 (2.2)	81 (2)	17 (0.4)	22 (0.5)	31 (0.8)
Sikkim	48	15 (31.3)	44 (91.7)	2 (4.2)	0 (0)	0 (0)	1 (2.1)	0 (0)
Tamil Nadu	1711	206 (12)	1552 (90.7)	36 (2.1)	23 (1.3)	5 (0.3)	12 (0.7)	16 (0.9)
Telangana	1341	373 (27.8)	1237 (92.2)	25 (1.9)	7 (0.5)	5 (0.4)	7 (0.5)	13 (1)
Tripura	42	12 (28.6)	39 (92.9)	1 (2.4)	1 (2.4)	0 (0)	0 (0)	0 (0)
Uttar Pradesh	16637	2773 (16.7)	14809 (89)	329 (2)	282 (1.7)	63 (0.4)	150 (0.9)	101 (0.6)
Uttarakhand	830	131 (15.8)	751 (90.5)	16 (1.9)	13 (1.6)	6 (0.7)	11 (1.3)	8 (1)
West Bengal	2513	581 (23.1)	2155 (85.8)	80 (3.2)	45 (1.8)	13 (0.5)	32 (1.3)	34 (1.4)
India	**72838**	**11890 (16.3)**	**64387 (88.4)**	**1469 (2)**	**1308 (1.8)**	**318 (0.4)**	**779 (1.1)**	**744 (1)**

3.7 TREATMENT OUTCOME OF PAEDIATRIC TB PATIENTS NOTIFIED IN 2021 (PUBLIC SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	21	4 (19)	18 (85.7)	0 (0)	0 (0)	0 (0)	1 (4.8)	0 (0)
Andhra Pradesh	1626	307 (18.9)	1554 (95.6)	23 (1.4)	1 (0.1)	3 (0.2)	6 (0.4)	2 (0.1)
Arunachal Pradesh	265	43 (16.2)	219 (82.6)	3 (1.1)	15 (5.7)	1 (0.4)	6 (2.3)	3 (1.1)
Assam	1031	181 (17.6)	912 (88.5)	34 (3.3)	12 (1.2)	5 (0.5)	9 (0.9)	3 (0.3)
Bihar	3089	463 (15)	2435 (78.8)	51 (1.7)	109 (3.5)	17 (0.6)	31 (1)	135 (4.4)
Chandigarh	250	48 (19.2)	215 (86)	3 (1.2)	6 (2.4)	4 (1.6)	3 (1.2)	6 (2.4)
Chhattisgarh	888	169 (19)	799 (90)	28 (3.2)	9 (1)	6 (0.7)	0 (0)	23 (2.6)
Dadra and Nagar Haveli and Daman and Diu	38	9 (23.7)	38 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Delhi	7932	1033 (13)	6495 (81.9)	93 (1.2)	201 (2.5)	55 (0.7)	119 (1.5)	107 (1.3)
Goa	54	5 (9.3)	46 (85.2)	1 (1.9)	0 (0)	1 (1.9)	0 (0)	0 (0)
Gujarat	3501	530 (15.1)	3203 (91.5)	136 (3.9)	35 (1)	16 (0.5)	27 (0.8)	9 (0.3)
Haryana	2630	663 (25.2)	2322 (88.3)	35 (1.3)	28 (1.1)	16 (0.6)	18 (0.7)	29 (1.1)
Himachal Pradesh	441	98 (22.2)	404 (91.6)	12 (2.7)	5 (1.1)	0 (0)	3 (0.7)	1 (0.2)
Jammu & Kashmir	516	118 (22.9)	465 (90.1)	8 (1.6)	11 (2.1)	3 (0.6)	2 (0.4)	5 (1)
Jharkhand	1141	246 (21.6)	1006 (88.2)	19 (1.7)	32 (2.8)	6 (0.5)	6 (0.5)	20 (1.8)
Karnataka	2188	410 (18.7)	1988 (90.9)	68 (3.1)	48 (2.2)	1 (0)	19 (0.9)	7 (0.3)
Kerala	572	66 (11.5)	513 (89.7)	5 (0.9)	11 (1.9)	3 (0.5)	4 (0.7)	19 (3.3)
Ladakh	4	1 (25)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Lakshadweep	1	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	8687	771 (8.9)	7946 (91.5)	141 (1.6)	206 (2.4)	29 (0.3)	42 (0.5)	125 (1.4)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Maharashtra	6407	1008 (15.7)	5691 (88.8)	107 (1.7)	66 (1)	26 (0.4)	225 (3.5)	12 (0.2)
Manipur	49	10 (20.4)	41 (83.7)	2 (4.1)	2 (4.1)	0 (0)	0 (0)	0 (0)
Meghalaya	208	51 (24.5)	187 (89.9)	6 (2.9)	1 (0.5)	0 (0)	5 (2.4)	0 (0)
Mizoram	62	8 (12.9)	58 (93.5)	1 (1.6)	1 (1.6)	0 (0)	0 (0)	0 (0)
Nagaland	169	50 (29.6)	136 (80.5)	4 (2.4)	4 (2.4)	3 (1.8)	0 (0)	14 (8.3)
Odisha	1681	320 (19)	1553 (92.4)	57 (3.4)	9 (0.5)	1 (0.1)	2 (0.1)	10 (0.6)
Puducherry	47	5 (10.6)	44 (93.6)	0 (0)	0 (0)	0 (0)	1 (2.1)	0 (0)
Punjab	2130	488 (22.9)	1888 (88.6)	53 (2.5)	44 (2.1)	13 (0.6)	15 (0.7)	11 (0.5)
Rajasthan	4088	694 (17)	3619 (88.5)	90 (2.2)	81 (2)	17 (0.4)	22 (0.5)	31 (0.8)
Sikkim	48	15 (31.3)	44 (91.7)	2 (4.2)	0 (0)	0 (0)	1 (2.1)	0 (0)
Tamil Nadu	1711	206 (12)	1552 (90.7)	36 (2.1)	23 (1.3)	5 (0.3)	12 (0.7)	16 (0.9)
Telangana	1341	373 (27.8)	1237 (92.2)	25 (1.9)	7 (0.5)	5 (0.4)	7 (0.5)	13 (1)
Tripura	42	12 (28.6)	39 (92.9)	1 (2.4)	1 (2.4)	0 (0)	0 (0)	0 (0)
Uttar Pradesh	16637	2773 (16.7)	14809 (89)	329 (2)	282 (1.7)	63 (0.4)	150 (0.9)	101 (0.6)
Uttarakhand	830	131 (15.8)	751 (90.5)	16 (1.9)	13 (1.6)	6 (0.7)	11 (1.3)	8 (1)
West Bengal	2513	581 (23.1)	2155 (85.8)	80 (3.2)	45 (1.8)	13 (0.5)	32 (1.3)	34 (1.4)
India	**72838**	**11890 (16.3)**	**64387 (88.4)**	**1469 (2)**	**1308 (1.8)**	**318 (0.4)**	**779 (1.1)**	**744 (1)**

3.8 TREATMENT OUTCOME OF PAEDIATRIC TB PATIENTS NOTIFIED IN 2021 (PRIVATE SECTOR)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treat-ment Failure Rate, n (%)	Regimen Change, n (%)	Not eval-uated, n (%)
Andhra Pradesh	788	45 (5.7)	774 (98.2)	2 (0.3)	2 (0.3)	0 (0)	3 (0.4)	1 (0.1)
Assam	121	8 (6.6)	106 (87.6)	3 (2.5)	4 (3.3)	0 (0)	0 (0)	0 (0)
Bihar	8940	16 (0.2)	8059 (90.1)	130 (1.5)	291 (3.3)	46 (0.5)	26 (0.3)	248 (2.8)
Chandigarh	9	1 (11.1)	6 (66.7)	0 (0)	1 (11.1)	0 (0)	0 (0)	0 (0)
Chhattisgarh	528	19 (3.6)	477 (90.3)	5 (0.9)	17 (3.2)	2 (0.4)	1 (0.2)	14 (2.7)
Dadra And Nagar Haveli And Daman And Diu	4	1 (25)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Delhi	1387	18 (1.3)	989 (71.3)	11 (0.8)	94 (6.8)	2 (0.1)	7 (0.5)	36 (2.6)
Goa	7	0 (0)	6 (85.7)	0 (0)	0 (0)	1 (14.3)	0 (0)	0 (0)
Gujarat	2662	9 (0.3)	2541 (95.5)	30 (1.1)	55 (2.1)	5 (0.2)	10 (0.4)	6 (0.2)
Haryana	1138	80 (7)	1024 (90)	6 (0.5)	20 (1.8)	2 (0.2)	5 (0.4)	37 (3.3)
Himachal Pradesh	20	4 (20)	14 (70)	1 (5)	1 (5)	1 (5)	0 (0)	0 (0)
Jammu & Kashmir	61	4 (6.6)	60 (98.4)	0 (0)	0 (0)	1 (1.6)	0 (0)	0 (0)
Jharkhand	1555	1 (0.1)	1418 (91.2)	25 (1.6)	98 (6.3)	0 (0)	3 (0.2)	5 (0.3)
Karnataka	686	32 (4.7)	631 (92)	5 (0.7)	14 (2)	1 (0.1)	0 (0)	5 (0.7)
Kerala	93	6 (6.5)	81 (87.1)	0 (0)	1 (1.1)	0 (0)	1 (1.1)	2 (2.2)
Madhya Pradesh	3488	117 (3.4)	3138 (90)	35 (1)	154 (4.4)	19 (0.5)	8 (0.2)	77 (2.2)
Maharashtra	4968	175 (3.5)	4630 (93.2)	60 (1.2)	46 (0.9)	5 (0.1)	115 (2.3)	5 (0.1)
Manipur	8	1 (12.5)	7 (87.5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Meghalaya	59	0 (0)	57 (96.6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Mizoram	7	2 (28.6)	5 (71.4)	2 (28.6)	0 (0)	0 (0)	0 (0)	0 (0)
Nagaland	29	0 (0)	24 (82.8)	2 (6.9)	0 (0)	0 (0)	0 (0)	3 (10.3)
Odisha	192	8 (4.2)	177 (92.2)	2 (1)	2 (1)	1 (0.5)	0 (0)	4 (2.1)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treat-ment Failure Rate, n (%)	Regimen Change, n (%)	Not eval-uated, n (%)
Punjab	755	23 (3)	707 (93.6)	11 (1.5)	10 (1.3)	4 (0.5)	1 (0.1)	2 (0.3)
Rajasthan	3225	102 (3.2)	2813 (87.2)	20 (0.6)	235 (7.3)	31 (1)	10 (0.3)	63 (2)
Sikkim	6	1 (16.7)	6 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Tamil Nadu	1010	176 (17.4)	911 (90.2)	12 (1.2)	24 (2.4)	1 (0.1)	2 (0.2)	19 (1.9)
Telangana	560	98 (17.5)	529 (94.5)	5 (0.9)	3 (0.5)	2 (0.4)	0 (0)	2 (0.4)
Uttar Pradesh	9965	239 (2.4)	9201 (92.3)	127 (1.3)	255 (2.6)	33 (0.3)	35 (0.4)	77 (0.8)
Uttarakhand	177	4 (2.3)	167 (94.4)	2 (1.1)	3 (1.7)	1 (0.6)	0 (0)	0 (0)
West Bengal	383	34 (8.9)	314 (82)	4 (1)	3 (0.8)	0 (0)	2 (0.5)	30 (7.8)
India	**42831**	**1224 (2.9)**	**38876 (90.8)**	**500 (1.2)**	**1333 (3.1)**	**158 (0.4)**	**229 (0.5)**	**636 (1.5)**

3.9 TREATMENT OUTCOME OF PAEDIATRIC TB PATIENTS NOTIFIED IN 2021 (TOTAL)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	21	4 (19)	18 (85.7)	0 (0)	0 (0)	0 (0)	1 (4.8)	0 (0)
Andhra Pradesh	2414	352 (14.6)	2328 (96.4)	25 (1)	3 (0.1)	3 (0.1)	9 (0.4)	3 (0.1)
Arunachal Pradesh	265	43 (16.2)	219 (82.6)	3 (1.1)	15 (5.7)	1 (0.4)	6 (2.3)	3 (1.1)
Assam	1152	189 (16.4)	1018 (88.4)	37 (3.2)	16 (1.4)	5 (0.4)	9 (0.8)	3 (0.3)
Bihar	12029	479 (4)	10494 (87.2)	181 (1.5)	400 (3.3)	63 (0.5)	57 (0.5)	383 (3.2)
Chandigarh	259	49 (18.9)	221 (85.3)	3 (1.2)	7 (2.7)	4 (1.5)	3 (1.2)	6 (2.3)
Chhattisgarh	1416	188 (13.3)	1276 (90.1)	33 (2.3)	26 (1.8)	8 (0.6)	1 (0.1)	37 (2.6)
Dadra and Nagar Haveli and Daman and Diu	42	10 (23.8)	42 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Delhi	9319	1051 (11.3)	7484 (80.3)	104 (1.1)	295 (3.2)	57 (0.6)	126 (1.4)	143 (1.5)
Goa	61	5 (8.2)	52 (85.2)	1 (1.6)	0 (0)	2 (3.3)	0 (0)	0 (0)
Gujarat	6163	539 (8.7)	5744 (93.2)	166 (2.7)	90 (1.5)	21 (0.3)	37 (0.6)	15 (0.2)
Haryana	3768	743 (19.7)	3346 (88.8)	41 (1.1)	48 (1.3)	18 (0.5)	23 (0.6)	66 (1.8)
Himachal Pradesh	461	102 (22.1)	418 (90.7)	13 (2.8)	6 (1.3)	1 (0.2)	3 (0.7)	1 (0.2)
Jammu & Kashmir	577	122 (21.1)	525 (91)	8 (1.4)	11 (1.9)	4 (0.7)	2 (0.3)	5 (0.9)
Jharkhand	2696	247 (9.2)	2424 (89.9)	44 (1.6)	130 (4.8)	6 (0.2)	9 (0.3)	25 (0.9)
Karnataka	2874	442 (15.4)	2619 (91.1)	73 (2.5)	62 (2.2)	2 (0.1)	19 (0.7)	12 (0.4)
Kerala	665	72 (10.8)	594 (89.3)	5 (0.8)	12 (1.8)	3 (0.5)	5 (0.8)	21 (3.2)
Ladakh	4	1 (25)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Lakshadweep	1	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	12175	888 (7.3)	11084 (91)	176 (1.4)	360 (3)	48 (0.4)	50 (0.4)	202 (1.7)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Maharashtra	11375	1183 (10.4)	10321 (90.7)	167 (1.5)	112 (1)	31 (0.3)	340 (3)	17 (0.1)
Manipur	57	11 (19.3)	48 (84.2)	2 (3.5)	2 (3.5)	0 (0)	0 (0)	0 (0)
Meghalaya	267	51 (19.1)	244 (91.4)	6 (2.2)	1 (0.4)	0 (0)	5 (1.9)	0 (0)
Mizoram	69	10 (14.5)	63 (91.3)	3 (4.3)	1 (1.4)	0 (0)	0 (0)	0 (0)
Nagaland	198	50 (25.3)	160 (80.8)	6 (3)	4 (2)	3 (1.5)	0 (0)	17 (8.6)
Odisha	1873	328 (17.5)	1730 (92.4)	59 (3.2)	11 (0.6)	2 (0.1)	2 (0.1)	14 (0.7)
Puducherry	47	5 (10.6)	44 (93.6)	0 (0)	0 (0)	0 (0)	1 (2.1)	0 (0)
Punjab	2885	511 (17.7)	2595 (89.9)	64 (2.2)	54 (1.9)	17 (0.6)	16 (0.6)	13 (0.5)
Rajasthan	7313	796 (10.9)	6432 (88)	110 (1.5)	316 (4.3)	48 (0.7)	32 (0.4)	94 (1.3)
Sikkim	54	16 (29.6)	50 (92.6)	2 (3.7)	0 (0)	0 (0)	1 (1.9)	0 (0)
Tamil Nadu	2721	382 (14)	2463 (90.5)	48 (1.8)	47 (1.7)	6 (0.2)	14 (0.5)	35 (1.3)
Telangana	1901	471 (24.8)	1766 (92.9)	30 (1.6)	10 (0.5)	7 (0.4)	7 (0.4)	15 (0.8)
Tripura	42	12 (28.6)	39 (92.9)	1 (2.4)	1 (2.4)	0 (0)	0 (0)	0 (0)
Uttar Pradesh	26602	3012 (11.3)	24010 (90.3)	456 (1.7)	537 (2)	96 (0.4)	185 (0.7)	178 (0.7)
Uttarakhand	1007	135 (13.4)	918 (91.2)	18 (1.8)	16 (1.6)	7 (0.7)	11 (1.1)	8 (0.8)
West Bengal	2896	615 (21.2)	2469 (85.3)	84 (2.9)	48 (1.7)	13 (0.4)	34 (1.2)	64 (2.2)
India	**115669**	**13114 (11.3)**	**103263 (89.3)**	**1969 (1.7)**	**2641 (2.3)**	**476 (0.4)**	**1008 (0.9)**	**1380 (1.2)**

3.10 TREATMENT OUTCOME OF TRIBAL TB PATIENTS NOTIFIED IN 2021

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Andaman & Nicobar Islands	85	24 (28.2)	80 (94.1)	3 (3.5)	0 (0)	0 (0)	1 (1.2)	0 (0)
Andhra Pradesh	11818	5658 (47.9)	10993 (93)	376 (3.2)	39 (0.3)	34 (0.3)	179 (1.5)	42 (0.4)
Arunachal Pradesh	2917	917 (31.4)	2287 (78.4)	90 (3.1)	222 (7.6)	23 (0.8)	63 (2.2)	130 (4.5)
Assam	7089	2234 (31.5)	6287 (88.7)	326 (4.6)	199 (2.8)	39 (0.6)	47 (0.7)	43 (0.6)
Chhattisgarh	11784	4465 (37.9)	10111 (85.8)	687 (5.8)	188 (1.6)	61 (0.5)	79 (0.7)	381 (3.2)
Dadra and Nagar Haveli and Daman and Diu	469	130 (27.7)	421 (89.8)	27 (5.8)	2 (0.4)	1 (0.2)	5 (1.1)	0 (0)
Gujarat	22432	8056 (35.9)	20010 (89.2)	1167 (5.2)	348 (1.6)	162 (0.7)	271 (1.2)	175 (0.8)
Himachal Pradesh	385	196 (50.9)	352 (91.4)	15 (3.9)	2 (0.5)	2 (0.5)	4 (1)	6 (1.6)
Jammu & Kashmir	56	27 (48.2)	50 (89.3)	3 (5.4)	0 (0)	1 (1.8)	0 (0)	1 (1.8)
Jharkhand	29421	7247 (24.6)	25318 (86.1)	1267 (4.3)	1153 (3.9)	132 (0.4)	182 (0.6)	746 (2.5)
Karnataka	2392	1256 (52.5)	2009 (84)	191 (8)	61 (2.6)	9 (0.4)	46 (1.9)	32 (1.3)
Kerala	810	358 (44.2)	666 (82.2)	82 (10.1)	11 (1.4)	6 (0.7)	16 (2)	15 (1.9)
Ladakh	320	120 (37.5)	262 (81.9)	22 (6.9)	4 (1.3)	2 (0.6)	4 (1.3)	11 (3.4)
Madhya Pradesh	26182	6416 (24.5)	22441 (85.7)	1193 (4.6)	965 (3.7)	169 (0.6)	243 (0.9)	774 (3)
Maharashtra	15668	5020 (32)	13926 (88.9)	743 (4.7)	251 (1.6)	60 (0.4)	250 (1.6)	111 (0.7)
Manipur	958	431 (45)	786 (82)	45 (4.7)	30 (3.1)	8 (0.8)	25 (2.6)	45 (4.7)
Meghalaya	4209	1381 (32.8)	3478 (82.6)	245 (5.8)	101 (2.4)	24 (0.6)	139 (3.3)	52 (1.2)
Mizoram	1793	620 (34.6)	1553 (86.6)	84 (4.7)	44 (2.5)	17 (0.9)	18 (1)	13 (0.7)

State	TB patients Notified	Cure Rate, n (%)	Success Rate, n (%)	Death Rate, n (%)	Lost to follow up, n (%)	Treatment Failure Rate, n (%)	Regimen Change, n (%)	Not evaluated, n (%)
Nagaland	3749	1464 (39.1)	3180 (84.8)	123 (3.3)	125 (3.3)	39 (1)	31 (0.8)	224 (6)
Odisha	21563	10723 (49.7)	19319 (89.6)	1492 (6.9)	231 (1.1)	27 (0.1)	52 (0.2)	298 (1.4)
Punjab	1	0 (0)	0 (0)	(0)	0 (0)	0 (0)	0 (0)	1 (100)
Rajasthan	17265	6553 (38)	15046 (87.1)	567 (3.3)	348 (2)	80 (0.5)	267 (1.5)	559 (3.2)
Tamil Nadu	480	264 (55)	412 (85.8)	38 (7.9)	5 (1)	1 (0.2)	8 (1.7)	8 (1.7)
Telangana	7343	2074 (28.2)	6567 (89.4)	252 (3.4)	118 (1.6)	40 (0.5)	85 (1.2)	144 (2)
Tripura	270	162 (60)	250 (92.6)	12 (4.4)	1 (0.4)	1 (0.4)	0 (0)	5 (1.9)
Uttar Pradesh	4021	962 (23.9)	3589 (89.3)	158 (3.9)	59 (1.5)	40 (1)	54 (1.3)	70 (1.7)
India	**193480**	**66758 (34.5)**	**169393 (87.6)**	**9208 (4.8)**	**4507 (2.3)**	**978 (0.5)**	**2069 (1.1)**	**3886 (2)**

4.1 PMDT INFRASTRUCTURE AND DIFFICULT TO TREAT TB CLINICS

State/UT	Functional nodal DR-TB centres	Functional district DR-TB centres	nodal/ district DR-TB centres which are AIC compliant	Nodal/ District DR-TB centres in private hospital/ corporate hospital (excl. medical colleges)	Out of above, number functional through partnership options through PIP)	Number of medical colleges within the state (incl. in private sector)	Number of medical colleges where facility for management of DR-TB is available (Outdoor or Indoor facility)	Number of state level experts engaged in the panel under S-DT3C	Number of paediatricians engaged under S-DT3C panel	Number of private practitioners engaged under S - DT3C panel	Number of difficult to treat TB patients referred to S-DT3C experts in 2022	Number of referred difficult to treat TB patients guided by S-DT3C	Number of referred patients for whom S-DT3C responded within 48 hrs.	Number of S-DT3C webinars held in 2022
A&N Islands	1	2	2	0	0	1	1	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	4	13	4	0	0	31	10	12	0	0	0	0	0	26
Arunachal Pradesh	2	15	15	0	0	1	1	NA	NA	NA	NA	NA	NA	NA
Assam	3	24	3	0	0	10	6	2	0	1	NA	NA	NA	0
Bihar	6	38	16	0	0	20	9	5	1	0	NA	NA	NA	2
Chandigarh	1	0	1	0	0	2	1	8	2	1	0	0	0	0
Chhattisgarh	4	23	23	0	0	14	14	3	1	0	3			1
DNH and DD	0	1	1	0	0	1	0	NA	NA	NA	NA	NA	NA	NA
Delhi	4	26	30	1	0	14	14	7	0	0	11	11	11	11
Goa	1	1	1	0	0	1	1	NA	NA	NA	NA	NA	NA	NA
Gujarat	5	37	37	1	1	31	29	7	1	1	3	3	2	0
Haryana	3	22	3	1	0	13	12	8	1	2	NA	NA		0
Himachal Pradesh	4	17	21	1	1	8	7	5	2	0	3	3	3	8
Jammu & Kashmir	2	3	5	0	0	8	8	08 Jammu, 04 kashmir	1	2	15	15	15	4
Jharkhand	5	19	15	0	0	9	3	6	3	0	13	13	13	30
Karnataka	6	25	31	0	0	69	28	3	0	0	20	20	20	16
Kerala	2	14	14	0	0	30	17	13	2	2	33	30	30	0

State/UT	Functional nodal DR-TB centres	Functional district DR-TB centres	nodal/ district DR-TB centres which are AIC compliant	Nodal/ District DR-TB centres in private hospital/ corporate hospital (excl. medical colleges)	Out of above, number functional through partnership options through PIP)	Number of medical colleges within the state (incl. in private sector)	Number of medical colleges where facility for management of DR-TB is available (Outdoor or Indoor facility)	Number of state level experts engaged in the panel under S-DT3C	Number of paediatricians engaged under S-DT3C panel	Number of private practitioners engaged under S - DT3C panel	Number of difficult to treat TB patients referred to S-DT3C experts in 2022	Number of referred difficult to treat TB patients guided by S-DT3C	Number of referred patients for whom S-DT3C responded within 48 hrs.	Number of S-DT3C webinars held in 2022
Ladakh	1	1	1	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
Lakshdweep	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	9	52	61	0	0	25	12	6	1	1	4	4	N/A	4
Maharashtra	21	44	53	6	6	63	30	14	4	4	3	3	0	8
Manipur	1	1	1	0	0	4	1	2	0	1	6	6	6	0
Meghalaya	2	7	2	0	0	1	1	NA	NA	NA	NA	NA	NA	NA
Mizoram	1	7	1	0	0	1	1	14	0	0	0	0	0	7
Nagaland	2	5	2	0	0	0	NA	6	2	0	0	0	0	10
Odisha	3	28	25	0	0	16	11	6	0	4	20	20	20	11
Puducherry	1	0	1	0	0	9	9	NA	NA	NA	NA	NA	NA	NA
Punjab	3	20	3	0	0	11	4	16	3	0	NA	NA	NA	7
Rajasthan	7	32	22	1	1	24	10	6	1	0	7	7		7
Sikkim	1	5	0	0	0	1	1	1	1	0	1	1	1	2
Tamil Nadu	7	24	31	0	0	71	28	8	0	0	15	15	15	20
Telangana	4	23	4	3	0	40	16	18	1	7	12	12	12	12
Tripura	1	4	0	0	0	2	2	1	0	0	1	1	1	
Uttar Pradesh	24	62	86	0	0	67	26	5	1	0	23	23	23	23
Uttarakhand	2	7	2	0	0	8	3	NA	NA	NA	NA	NA	NA	NA
West Bengal	9	38	35	6	1	33	16	16	2	3	10	10	1	10

State	Number of Truenat Machines	Total MTB Tests performed	Samples with Mycobacterium TB (MTB) Detected	Total RIF tests performed	Samples with RR/ MDR-TB Detected	Paediatric Testing			EP-TB Testing			Private Samples Testing		
						Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected
Andaman & Nicobar	5	2914	312	357	26	208	6	0	59	5	2	33	8	0
Andhra Pradesh	352	498161	28591	28420	563	7700	228	167	1363	63	3893	12947	2069	186
Arunachal Pradesh	26	9798	1198	1259	114	711	48	7	671	52	6	21	5	0
Assam	26	23653	3835	3895	117	1203	50	2	409	19	2	873	168	14
Bihar	180	105773	21772	19436	1146	6126	1015	59	1246	173	27	22857	5416	373
Chandigarh	5	4098	780	711	110	203	14	0	255	12	0	32	17	0
Chhattisgarh	222	114012	15244	15245	459	4645	299	48	4003	566	270	9751	1827	53
Dadar & Nagar Haveli	1	1698	128	139	9	93	2	1	115	8	0	26	6	0
Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delhi	50	43367	9254	6645	393	10304	1352	63	7453	666	76	493	178	13
Goa	12	12489	627	655	20	959	33	8	1009	53	9	403	60	22
Gujarat	84	142271	21640	20743	747	6837	524	53	3155	318	33	13282	3882	175
Haryana	56	55544	14753	13828	704	2869	454	189	1240	169	146	6358	2202	135
Himachal Pradesh	47	64367	4790	5106	107	3938	223	70	3802	435	49	3321	505	14
Jammu & Kashmir	25	37524	3612	3746	118	2010	153	2	2023	135	228	606	83	0
Jharkhand	211	108209	18430	18440	665	1161	156	41	972	72	108	4789	1052	68
Karnataka	134	205951	17004	17630	550	8791	497	55	7038	416	285	12003	2516	160
Kerala	73	136328	6786	7840	129	3901	49	1	70	7	0	7766	849	23

State	Number of Truenat Machines	Total MTB Tests performed	Samples with Mycobacterium TB (MTB) Detected	Total RIF tests performed	Samples with RR/ MDR-TB Detected	Paediatric Testing			EP-TB Testing			Private Samples Testing		
						Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected
Ladakh	2	780	39	21	0	1	0	0	0	0	0	4	0	0
Lakshadweep	9	2401	17	13	4	0	0	0	0	0	0	0	0	0
Madhya Pradesh	368	234007	64571	50285	3063	10935	1089	435	8898	1373	396	39544	13091	956
Maharashtra	230	169481	25587	23201	1908	11255	1247	439	5606	615	342	20454	4517	396
Manipur	10	2967	371	404	16	130	4	0	302	39	1	5	1	0
Meghalaya	55	29086	1829	1898	124	3337	97	8	244	12	558	834	48	26
Mizoram	5	1203	61	51	2	0	0	0	65	0	0	0	0	0
Nagaland	15	2664	333	324	10	70	18	26	43	11	0	19	5	5
Odhisa	183	62966	9124	9197	130	2789	197	39	2885	143	251	3855	488	32
Pondicherry	5	1290	242	268	5	8	1	0	7	3	0	7	5	0
Punjab	76	45727	12280	10679	316	2538	697	2012	1513	269	437	1562	424	239
Rajasthan	75	96719	22473	15436	589	2405	504	6	764	98	5	3079	1169	35
Sikkim	8	2274	99	104	17	212	14	4	62	1	2	0	0	0
Tamil Nadu	147	217193	37765	36354	1095	5255	131	326	3707	184	45	16345	4062	104
Telangana	91	244419	17612	15420	677	6412	412	109	4254	118	69	5935	1123	53
Tripura	10	7303	852	865	10	255	5	0	258	4	0	111	19	0
Uttar Pradesh	498	484476	118470	112484	5823	27202	5998	800	9152	1657	691	17872	5167	557
Uttarakhand	75	70831	12283	12145	547	4052	687	71	6688	755	8	2377	509	32
West Bengal	244	241186	36432	37023	1346	7473	608	37	6193	506	121	8030	1596	64
Grand Total	**3615**	**3483130**	**529196**	**490267**	**21659**	**145,988**	**16812**	**5078**	**85524**	**8957**	**8060**	**215594**	**53067**	**3735**

4.3 TESTING IN CBNAAT

State	Number of CBNAAT Machines (Including Mobile Vans)	Total Tests performed	Samples with Mycobacterium TB (MTB) Detected	Samples with RR/ MDR-TB Detected	Paediatric Testing			EP-TB Testing			Private Samples Testing		
					Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected
Andaman & Nicobar	5	800	98	8	46	3	0	45	6	0	23	4	0
Andhra Pradesh	50	130211	16374	844	3765	173	17	9103	1037	461	20709	4289	171
Arunachal Pradesh	12	1702	386	42	131	13	4	109	20	1	0	0	0
Assam	35	38168	11051	651	2386	372	20	2117	220	14	1951	624	32
Bihar	85	80220	18689	2025	4961	877	158	4965	765	1157	22403	6129	634
Chandigarh	6	9338	1647	104	2242	324	15	3188	436	24	57	24	1
Chhattisgarh	36	23953	3595	141	1484	101	0	5333	580	44	3895	583	21
Dadar & Nagar Haveli	3	2425	381	26	114	10	2	332	91	6	48	15	0
Daman & Diu	3	1521	269	16	56	10	1	67	31	1	28	13	1
Delhi	50	71298	25625	2384	12652	2041	260	20301	4658	550	804	241	31
Goa	4	9224	759	57	892	40	4	3217	203	17	84	20	0
Gujarat	73	73637	36196	2052	2435	341	28	15471	2672	224	7074	2900	182
Haryana	32	61202	19273	1124	3535	742	375	3953	800	59	5467	1843	138
Himachal Pradesh	27	48940	6233	207	3205	213	10	6773	615	12	2922	553	10
Jammu & Kashmir	18	28017	3597	107	2295	107	1	4359	290	221	1368	245	1
Jharkhand	40	51430	12277	1018	2156	281	35	2375	288	113	8083	2058	173
Karnataka	95	194635	386	42	131	13	4	109	20	1	0	0	0
Kerala	41	96833	7206	239	10132	165	6	18347	1626	1185	17361	1391	42

State	Number of CBNAAT Machines (Including Mobile Vans)	Total Tests performed	Samples with Mycobacterium TB (MTB) Detected	Samples with RR/ MDR-TB Detected	Paediatric Testing			EP-TB Testing			Private Samples Testing		
					Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected	Total Tests performed	Number of Samples with Mycobacterium TB (MTB) Detected	Number of Samples with RR/ MDR-TB Detected
Ladakh	12	240	6	4	0	0	0	0	0	0	0	0	0
Lakshadweep	1	8880	290	6	112	3	1	223	16	73	73	13	2
Madhya Pradesh	85	100970	27065	2076	8287	1042	94	10560	1479	114	13761	5310	407
Maharashtra	162	346864	64869	9009	29090	3515	672	57864	10353	1714	64363	14865	2401
Manipur	10	6017	871	162	267	11	1	253	40	5	75	14	1
Meghalaya	11	12614	1607	198	1886	116	13	1290	209	25	678	96	2
Mizoram	10	6267	830	85	737	20	2	1140	115	12	390	54	7
Nagaland	11	8725	1734	102	426	34	12	372	63	23	717	215	7
Odisha	43	98915	22897	552	4708	810	43	13971	3880	267	8357	1225	40
Pondicherry	4	9826	1361	62	607	5	0	4269	402	11	0	0	0
Punjab	35	46215	15439	603	2878	722	40	6298	1237	39	2340	530	15
Rajasthan	78	159127	60127	4056	10490	2028	130	19593	2568	181	15179	5480	345
Sikkim	9	8721	959	220	855	82	20	1061	153	37	332	93	7
Tamil Nadu	81	139120	27387	1410	8968	401	38	16272	1803	69	14035	3210	126
Telangana	40	136455	18524	1439	4635	303	21	5870	639	43	13077	2968	195
Tripura	10	6560	1450	25	203	15	0	349	52	2	43	9	0
Uttar Pradesh	158	232454	85771	9102	21245	4732	618	26753	4790	761	28753	12065	1401
Uttarakhand	15	12532	3090	174	535	74	1	413	84	3	3578	573	57
West Bengal	85	101683	26769	1654	5585	612	79	11244	1676	171	4132	904	81
Grand Total	**1475**	**2365739**	**525088**	**42026**	**154132**	**20351**	**2725**	**277959**	**43917**	**7640**	**262160**	**68556**	**6531**

4.4 TESTING ON LINE PROBE ASSAYS (LPA)

State/UT	First Line Line Probe Assay					Second Line Line Probe Assay				
	Samples Tested	Susceptible to both isoniazid & Rifampicin	Resistant to both isoniazid & Rifampicin	Resistant TO Rifampicin	Resistant TO Isoniazid	Samples Tested	Susceptible to both FQ & SLI	Resistant to both FQ & SLI	Resistant TO FQ	Resistant TO SLI
Andaman & Nicobar	127	87	13	3	5	36	21	2	3	0
Andhra Pradesh	19414	16826	530	211	1439	2076	1794	5	211	10
Arunachal Pradesh	493	356	68	14	54	129	76	3	28	2
Assam	2869	2434	206	41	179	452	303	6	101	8
Bihar	11746	8209	2017	257	611	3309	1691	165	1132	29
Chandigarh	782	674	49	30	67	62	41	5	15	1
Chattisgarh	5156	4562	120	40	320	531	424	4	76	5
Dadar and Nagar Haveli	45	44	0	0	1	1	1	0	0	0
Daman & Diu	16	15	0	0	2	1	1	0	0	0
Delhi	22530	17889	1812	306	1496	3233	1909	77	1025	63
Goa	774	574	19	4	22	98	78	1	16	1
Gujarat	9862	7811	357	109	608	3780	1754	131	1005	82
Haryana	5823	4587	155	162	389	820	572	14	99	18
Himachal Pradesh	6258	5554	108	42	229	407	345	3	35	0
Jammu & Kashmir	2316	1543	33	11	88	155	103	6	21	0
Jharkhand	4639	3791	212	143	193	448	255	14	107	2
Karnataka	29042	23983	854	487	2105	3613	2529	43	505	36
Kerala	4809	3884	121	174	310	407	298	8	29	6

State/UT	First Line Line Probe Assay					Second Line Line Probe Assay				
	Samples Tested	Susceptible to both isoniazid & Rifampicin	Resistant to both isoniazid & Rifampicin	Resistant TO Rifampicin	Resistant TO Isoniazid	Samples Tested	Susceptible to both FQ & SLI	Resistant to both FQ & SLI	Resistant TO FQ	Resistant TO SLI
Ladakh	11	8	1	0	2	3	3	0	0	0
Lakshdweep	4	3	0	0	1	1	1	0	0	0
Madhya Pradesh	22312	18348	1012	470	1418	3336	2183	54	868	10
Maharashtra	47018	35016	5947	1839	3293	11538	5884	865	4038	115
Manipur	116	100	5	1	9	11	6	0	5	0
Meghalaya	976	797	107	7	70	127	90	3	31	3
Mizoram	177	141	23	1	6	36	19	0	13	0
Nagaland	345	281	21	5	32	30	24	0	2	0
Odisha	6061	5592	151	25	156	487	388	5	59	4
Puducherry	8223	7550	105	40	494	648	591	1	46	2
Punjab	2753	2347	132	33	110	496	367	5	120	1
Rajasthan	12027	7965	1080	703	991	3733	2426	82	821	44
Sikkim	325	126	39	44	49	154	64	2	36	8
Tamil Naidu	17859	15145	566	371	1346	2192	1785	15	262	13
Telangana	19593	12949	541	268	1108	1929	810	16	202	7
Tripura	434	381	8	6	25	24	19	0	4	0
Uttar Pradesh	21829	13235	2724	671	1448	8087	3631	394	2869	258
Uttrakhand	3718	2860	148	47	292	450	313	6	111	10
West Bengal	19237	15239	841	490	1496	2164	1507	105	311	46
India	**309719**	**240940**	**20125**	**7055**	**20464**	**55004**	**32306**	**2040**	**14206**	**784**

State/UT	SL-DST				Culture			
	Samples tested	Susceptible to FQ & SLI	No. of Pre-XDR detected (RR/MDR +FQ)	No. of XDR detected (RR/MDR +FQ+LZD/BDQ)	Samples tested	MTB +ve	Non-Tuberculous Mycobacterium detected	Culture -ve
Andaman & Nicobar Islands	0	0	0	0	310	25	0	158
Andhra Pradesh	131	37	0	0	25956	3760	0	12584
Arunachal Pradesh	2	1	1	0	147	15	0	36
Assam	25	11	4	0	2211	319	0	554
Bihar	0	0	0	0	13639	2911	39	6038
Chandigarh	0	0	0	0	2152	498	9	1333
Chhattisgarh	55	16	15	2	3958	585	31	2459
Dadra & Nagar Haveli	0	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0	0
Delhi	558	324	206	20	25250	5818	274	10125
Goa	30	12	2	0	3114	639	14	1142
Gujarat	183	41	187	6	9339	1138	43	426
Haryana	0	0	0	0	1040	97	0	215
Himachal Pradesh	0	0	0	0	0	0	0	0
Jammu & Kashmir	0	0	0	0	205	35	0	167
Jharkhand	31	6	0	0	4433	223	0	772
Karnataka	1536	645	311	11	20783	4085	756	6611

State/UT	SL-DST				Culture			
	Samples tested	Susceptible to FQ & SLI	No. of Pre-XDR detected (RR/MDR +FQ)	No. of XDR detected (RR/ MDR +FQ+LZD/ BDQ)	Samples tested	MTB +ve	Non-Tuberculous Mycobacterium detected	Culture -ve
Kerala	24	5	10	0	3960	96	7	1358
Ladakh	0	0	0	0	0	0	0	0
Lakshadweep	0	0	0	0	0	0	0	0
Madhya Pradesh	510	235	45	7	13432	2471	12	4219
Maharashtra	5591	557	1089	36	91349	10441	1200	7492
Manipur	0	0	0	0	27	3	0	2
Meghalaya	0	0	0	0	339	21	10	37
Mizoram	4	2	0	0	246	8	0	54
Nagaland	1	0	0	0	204	21	0	57
Odisha	0	0	0	0	4451	568	5	2317
Puducherry	0	0	0	0	2338	361	82	606
Punjab	148	64	24	30	5487	761	0	3369
Rajasthan	44	0	0	0	10973	1945	224	3689
Sikkim	0	0	0	0	1067	138	90	179
Tamil Nadu	16	11	3	0	3398	350	0	1185
Telangana	437	338	25	9	17325	1883	235	8965
Tripura	1	1	0	0	612	102	9	230
Uttar Pradesh	229	112	22	4	22958	1809	12	8483
Uttarakhand	0	0	0	0	18	0	0	0
West Bengal	587	1476	467	15	7708	1694	21	3249
India	**10143**	**3894**	**2411**	**140**	**298429**	**42820**	**3073**	**88111**

4.6 LABORATORY INFRASTRUCTURE
Public Sector Laboratory

S.No	State/UT	Name of the Culture & DST Laboratory	Liquid culture	FL LCDST	SL LCDST	FL LPA	SL LPA
1	Andhra Pradesh	IRL, Visakhaptnam	Available	Certified	Certified	Certified	Certified
2	Andhra Pradesh	C&DST Laboratory, SMC, Vijayawada	Available	Not Certified	Not Certified	Not Certified	Not Certified
3	Andhra Pradesh	C&DST Laboratory, DTRC(DFIT),Nellore,A.P	Not Available	Not Certified	Not Certified	Certified	Certified
4	Andhra Pradesh	C&DST Laboratory, RDT Hospital, Bathalapalli	Available	Certified	Not Certified	Certified	Certified
5	Assam	IRL Guwahati	Available	Certified	Certified	Certified	Certified
6	Bihar	C&DST Laboratory, JLNMCH Bhagalpur	Available	Certified	Certified	Certified	Certified
7	Bihar	IRL, Patna	Available	Certified	Certified	Certified	Certified
8	Bihar	C&DST Laboratory,IGIMS, Patna	Available	Certified	Not Certified	Not Certified	Not Certified
9	Bihar	DFIT Darbhanga	Available	Not Certified	Not Certified	Certified	Certified
10	Chhattisgarh	IRL, STDC Raipur	Available	Certified	Certified	Certified	Certified
11	Chhattisgarh	C&DST Laboratory, AIIMS, Raipur	Not Available	Not Certified	Not Certified	Certified	Certified
12	Chandigarh	IRL, PGIMER Chandigarh	Available	Certified	Certified	Certified	Certified
13	Delhi	IRL, New Delhi TB Centre (NDTB), Delhi	Available	Certified	Certified	Certified	Certified
14	Delhi	IRL, AIIMS (Medicine), Delhi	Available	Certified	Certified	Certified	Certified
15	Delhi	NRL, NITRD, Delhi	Available	Certified	Certified	Certified	Certified
16	Delhi	C&DST Laboratory,RBIMPT, Delhi	Available	Certified	Not Certified	Not Certified	Not Certified
17	Goa	IRL Goa	Available	Certified	Certified	Certified	Certified
18	Gujarat	IRL , STDC-Ahmedabad	Available	Certified	Certified	Certified	Certified
19	Gujarat	C&DST Laboratory, MPSMS, Jamnagar	Available	Certified	Certified	Certified	Certified
20	Gujarat	C&DST Laboratory,GMC Surat	Available	Certified	Certified	Not Certified	Not Certified
21	Himachal Pradesh	IRL Dharampur	Not Available	Not Certified	Not Certified	Certified	Certified
22	Himachal Pradesh	C&DST Laboratory, IGIMS Shimla	Available	Not Certified	Not Certified	Not Certified	Not Certified
23	Haryana	IRL Karnal	Available	Not Certified	Not Certified	Certified	Certified
24	Haryana	C&DST Lab PGI Rohtak	Available	Not Centified	Not Certified	Certified	Certified
24	Jharkhand	IRL, Ranchi	Available	Certified	Certified	Certified	Certified
25	Jammu & Kashmir	IRL Srinagar	Not Available	Not Certified	Not Certified	Certified	Certified
26	Karnataka	IRL Bangalore	Available	Certified	Certified	Certified	Certified
27	Karnataka	C&DST Laboratory,KIMS, Hubli	Available	Certified	Certified	Certified	Certified

S.No	State/UT	Name of the Culture & DST Laboratory	Liquid culture	FL LCDST	SL LCDST	FL LPA	SL LPA
28	Karnataka	C&DST Laboratory, RIMS, Raichur	Available	Certified	Certified	Certified	Certified
29	Karnataka	NRL NTI, Bangalore	Available	Certified	Certified	Certified	Certified
30	Kerala	IRL Trivandrum	Available	Certified	Certified	Certified	Certified
31	Kerala	C&DST Laboratory, GMC, Kozhikode	Available	Not Certified	Not Certified	Certified	Certified
32	Maharashtra	IRL Nagpur	Available	Certified	Certified	Certified	Certified
33	Maharashtra	IRL Pune	Available	Certified	Certified	Certified	Certified
34	Maharashtra	C&DST Laboratory, JJ Hospital, Mumbai	Available	Certified	Certified	Certified	Certified
35	Maharashtra	B J Medical College, Pune	Available	Certified	Certified	Not Certified	Not Certified
36	Maharashtra	C&DST Laboratory, GMC, Aurangabad	Available	Certified	Certified	Certified	Certified
37	Maharashtra	IRL, GTB Hospital, Sewree, Mumbai	Available	Certified	Certified	Certified	Certified
38	Maharashtra	Military Hospital, Pune	Not Available	Not Certified	Not Certified	Certified	Not Certified
39	Maharashtra	C&DST Laboratory, KEM Hospital and Medical College, Mumbai	Available	Certified	Certified	Not Certified	Not Certified
40	Madhya Pradesh	C&DST Laboratory,NIRTH, Jabalpur	Available	Certified	Certified	Certified	Certified
41	Madhya Pradesh	IRL, STDC Indore	Available	Certified	Certified	Certified	Certified
42	Madhya Pradesh	NRL, BMHRC ,Bhopal	Available	Certified	Certified	Certified	Certified
43	Madhya Pradesh	C&DST Laboratory, GRMC, Gwalior	Not Available	Not Certified	Not Certified	Certified	Certified
44	Madhya Pradesh	IRL STDC Bhopal	Available	Certified	Not Certified	Certified	Certified
45	Madhya Pradesh	C&DST Laboratory, AIIMS, Bhopal	Available	Not Certified	Not Certified	Certified	Certified
46	Odisha	IRL Cuttack,	Available	Certified	Certified	Certified	Certified
47	Odisha	NRL RMRC, Bhubaneswar	Available	Certified	Certified	Certified	Certified
48	Punjab	IRL, Patiala	Available	Certified	Certified	Certified	Certified
49	Punjab	C&DST Laboratory,Guru Gobind Singh Medical College, Faridkot	Available	Not Certified	Not Certified	Not Certified	
50	Puducherry	IRL Puducherry	Available	Certified	Certified	Certified	Certified
51	Rajasthan	IRL Ajmer	Available	Certified	Certified	Certified	Certified
52	Rajasthan	C&DST Laboratory, SMS Medical College, Jaipur	Available	Certified	Certified	Certified	Certified
53	Rajasthan	C&DST Laboratory, SNMC Jodhpur	Available	Certified	Not Certified	Certified	Certified
54	Rajasthan	C&DST Laboratory, AIIMS, Jodhpur	Not Available	Not Certified	Not Certified	Certified	Certified

S.No	State/UT	Name of the Culture & DST Laboratory	Liquid culture	FL LCDST	SL LCDST	FL LPA	SL LPA
55	Sikkim	IRL, Gangtok	Available	Certified	Not Certified	Certified	Certified
56	Tamil Nadu	IRL STDC CHENNAI	Available	Certified	Certified	Certified	Certified
57	Tamil Nadu	IRL GMC MADURAI	Available	Certified	Certified	Certified	Certified
58	Tamil Nadu	C&DST Laboratory, Coimbatore Medical College Hospital,	Available	Not Certified	Not Certified	Certified	Certified
59	Tamil Nadu	C&DST Laboratory, GHTM Tambaram, Chennai	Available	Certified	Certified	Certified	Certified
60	Tamil Nadu	C&DST Laboratory, K.A.P.V. Government Medical College, Trichy	Available	Not Certified	Not Certified	Certified	Certified
61	Tamil Nadu	NRL NIRT, Chennai	Available	Certified	Certified	Certified	Certified
62	Tripura	C&DST Laboratory, GMC, Agartala	Available	Certified	Not Certified	Certified	Certified
63	Telangana	IRL Hyderabad	Available	Certified	Certified	Certified	Certified
64	Telangana	Rajiv Gandhi Institute of Medical Sciences (RGIMS), Adilabad	Available	Not Certified	Not Certified	Not Certified	Not Certified
65	Telangana	C&DST Laboratory, BPHRC Hyderabad	Available	Certified	Certified	Certified	Certified
66	Uttarakhand	IRL Dehradun	Not Available	Not Certified	Not Certified	Certified	Certified
67	Uttar Pradesh	IRL KGMU, Lucknow	Available	Certified	Certified	Certified	Certified
68	Uttar Pradesh	NRL, ICMR0NJIL&OMD,AGRA	Available	Certified	Certified	Certified	Certified
69	Uttar Pradesh	C&DST Laboratory,JNMC, AMU, Alligarh	Not Available	Not Certified	Not Certified	Certified	Certified
70	Uttar Pradesh	IRL Agra	Available	Certified	Certified	Certified	Certified
71	Uttar Pradesh	C&DST Laboratory, BHU, Varanasi	Available	Certified	Certified	Certified	Certified
72	Uttar Pradesh	C&DST Laboratory,LLRM Meerut, Uttar Pradesh	Available	Certified	Not Certified	Certified	Not Certified
73	Uttar Pradesh	C&DST Laboratory, Dr.RMLIMS, Lucknow	Available	Not Certified	Not Certified	Not Certified	Not Certified
74	Uttar Pradesh	C&DST Laboratory, UPUMS, Safai, Etawah	Not Available	Not Certified	Not Certified	Certified	Not Certified
75	Uttar Pradesh	C&DST Laboratory, BRD Medical College, Gorakhpur	Available	Not Certified	Not Certified	Certified	Not Certified
76	West Bengal	IRL, Kolkata West Bengal	Available	Certified	Certified	Certified	Certified
77	West Bengal	C&DST Laboratory, NBMC, West Bengal	Available	Certified	Certified	Certified	Certified
78	West Bengal	C&DST Laboratory, Burdwan Medical College, Burdwan	Available	Not Certified	Not Certified	Certified	Certified
79	West Bengal	C&DST Laboratory, Murshidabad Medical College and Hospital, Murshidabad	Available	Not Certified	Not Certified	Certified	Certified

Private Sector Laboratory

S.No	State/UT	Name of the Culture & DST Laboratory	Liquid culture	FL LCDST	SL LCDST	FL LPA	SL LPA
1	Gujarat	Schamaka TeKnology, Vadodara	Not Available	Not Certified	Not Certified	Certified	Not Certified
2	Gujarat	Microcare laboratory, Surat	Not Available	Not Certified	Not Certified	Certified	Not Certified
3	Karnataka	Kasturba Medical College, Manipal	Not Available	Not Certified	Not Certified	Certified	Not Certified
4	Meghalaya	Nazerath Hospital, Shilong	Not Available	Not Certified	Not Certified	Certified	Certified
5	Maharashtra	Thyrocare, Mumbai	Available	Certified	Certified	Certified	Certified
6	Maharashtra	P D Hinduja Hospital, Mumbai	Available	Certified	Certified	Certified	Certified
7	Maharashtra	SRL Diagnostics, Mumbai	Available	Certified	Certified	Certified	Certified
8	Maharashtra	Metropolis, Mumbai	Available	Certified	Certified	Certified	Not Certified
9	Maharashtra	INFEXN Laboratory, Thane	Available	Certified	Certified	Certified	Certified
10	Maharashtra	Aspira Path Lab, Navi Mumbai	Available	Certified	Not Certified	Certified	Not Certified
11	Manipur	Babina Diagnostics, Imphal	Available	Not Certified	Not Certified	Not Certified	Not Certified
12	Tamil Nadu	Christian Medical College,Vellore	Available	Certified	Certified	Certified	Certified
13	Tamil Nadu	Vision Research Fondation laboratory, Shakar Nethralaya, Chennai	Available	Certified	Not Certified	Not Certified	Not Certified
14	Uttar Pradesh	Subharti Medical College, Meerut	Not Available	Not Certified	Not Certified	Certified	Not Certified
15	Uttar Pradesh	Shri Ram Murti Smarak Institutions, Bareilly	Available	Not Certified	Not Certified	Not Certified	Not Certified
16	West Bengal	SRL Diagnsotics, Kolkata	Available	Certified	Not Certified	Not Certified	Not Certified
17	West Bengal	AMRI Hospital, Dhakuria, Kolkata	Available	Not Certified	Not Certified	Not Certified	Not Certified

4.7 PMDT CASE FINDING IN 2022 - I

*Patients as per current facility

State/UT	Bacteriologically confirmed among notified TB patients, n (%)			Bacteriologically confirmed TB patients with valid rapid DRT result for at least Rifampicin (RS/RR), n (%)			Rifampicin resistant TB patients diagnosed (MDR/RR-TB), n (%)				Rifampicin resistance TB patients with a DST result available for at least fluoroquinolone, n (%)		
	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Pediatric MDR/ RR-TB patients (<15 years)	Private sector	Public sector	Total TB
Andaman & Nicobar Islands	26 (84)	375 (65)	401 (66)	4 (15)	316 (84)	320 (80)	0 (0)	35 (11)	35 (11)	1 (3)	0 (NA)	12 (34)	12 (34)
Andhra Pradesh	7852 (29)	41286 (64)	49138 (54)	7111 (91)	37126 (90)	44237 (90)	86 (1)	1450 (4)	1536 (3)	11 (1)	23 (27)	440 (30)	463 (30)
Arunachal Pradesh	5 (63)	1637 (55)	1642 (55)	2 (40)	995 (61)	997 (61)	0 (0)	177 (18)	177 (18)	13 (7)	0 (NA)	32 (18)	32 (18)
Assam	1646 (28)	21497 (52)	23143 (49)	926 (56)	12038 (56)	12964 (56)	51 (6)	775 (6)	826 (6)	13 (2)	2 (4)	118 (15)	120 (15)
Bihar	18199 (22)	45734 (57)	63933 (39)	13231 (73)	27805 (61)	41036 (64)	501 (4)	3946 (14)	4447 (11)	160 (4)	105 (21)	1627 (41)	1732 (41)
Chandigarh	34 (45)	2221 (60)	2255 (60)	17 (50)	1898 (85)	1915 (85)	1 (6)	73 (4)	74 (4)	1 (1)	0 (0)	17 (23)	17 (23)
Chhattisgarh	2545 (27)	16629 (57)	19174 (50)	1736 (68)	12945 (78)	14681 (77)	43 (2)	407 (3)	450 (3)	4 (1)	7 (16)	138 (34)	145 (34)
Dadra And Nagar Haveli And Daman And Diu	19 (25)	393 (46)	412 (45)	12 (63)	378 (96)	390 (95)	0 (0)	22 (6)	22 (6)	1 (5)	0 (NA)	7 (32)	7 (32)
Delhi	4132 (41)	38853 (51)	42985 (50)	1948 (47)	30895 (80)	32843 (76)	106 (5)	2975 (10)	3081 (9)	225 (7)	10 (9)	1383 (46)	1393 (46)
Goa	107 (27)	1074 (66)	1181 (58)	59 (55)	1041 (97)	1100 (93)	0 (0)	59 (6)	59 (5)	1 (2)	0 (NA)	38 (64)	38 (64)
Gujarat	7124 (18)	59719 (56)	66843 (46)	5597 (79)	47541 (80)	53138 (79)	164 (3)	2620 (6)	2784 (5)	58 (2)	52 (32)	1676 (64)	1728 (64)
Haryana	7581 (44)	38934 (64)	46515 (59)	4245 (56)	29566 (76)	33811 (73)	130 (3)	1966 (7)	2096 (6)	67 (3)	18 (14)	511 (26)	529 (26)
Himachal Pradesh	279 (57)	10735 (67)	11014 (67)	240 (86)	9641 (90)	9881 (90)	10 (4)	228 (2)	238 (2)	4 (2)	7 (70)	117 (51)	124 (51)
Jammu & Kashmir	173 (30)	6561 (58)	6734 (57)	144 (83)	5442 (83)	5586 (83)	1 (1)	170 (3)	171 (3)	6 (4)	0 (0)	32 (19)	32 (19)
Jharkhand	2689 (23)	30445 (65)	33134 (57)	1872 (70)	20897 (69)	22769 (69)	49 (3)	1197 (6)	1246 (5)	20 (2)	6 (12)	298 (25)	304 (25)

Karnataka	5205 (44)	43743 (66)	48948 (63)	3999 (77)	38836 (89)	42835 (88)	78 (2)	1677 (4)	1755 (4)	24 (1)	19 (24)	997 (59)	1016 (59)
Kerala	1599 (54)	13499 (65)	15098 (64)	1161 (73)	11645 (86)	12806 (85)	14 (1)	268 (2)	282 (2)	4 (1)	3 (21)	113 (42)	116 (42)
Ladakh	2 (18)	245 (70)	247 (68)	2 (100)	234 (96)	236 (96)	1 (50)	3 (1)	4 (2)	0 (0)	1 (100)	1 (33)	2 (33)
Lakshadweep	0 (NA)	17 (77)	17 (77)	0 (NA)	17 (100)	17 (100)	0 (NA)	1 (6)	1 (6)	0 (0)	0 (NA)	1 (100)	1 (100)
Madhya Pradesh	13058 (27)	69747 (50)	82805 (44)	8299 (64)	43074 (62)	51373 (62)	300 (4)	3287 (8)	3587 (7)	65 (2)	46 (15)	988 (30)	1034 (30)
Maharashtra	29571 (38)	80690 (54)	110261 (49)	22015 (74)	66268 (82)	88283 (80)	1087 (5)	10475 (16)	11562 (13)	652 (6)	326 (30)	5601 (53)	5927 (53)
Manipur	143 (55)	1480 (63)	1623 (62)	92 (64)	1222 (83)	1314 (81)	8 (9)	88 (7)	96 (7)	2 (2)	1 (13)	2 (2)	3 (2)
Meghalaya	87 (24)	3136 (69)	3223 (66)	57 (66)	2403 (77)	2460 (76)	4 (7)	247 (10)	251 (10)	11 (4)	2 (50)	77 (31)	79 (31)
Mizoram	15 (79)	1243 (60)	1258 (60)	14 (93)	1112 (89)	1126 (90)	1 (7)	112 (10)	113 (10)	3 (3)	0 (0)	22 (20)	22 (20)
Nagaland	78 (21)	2287 (60)	2365 (57)	41 (53)	1794 (78)	1835 (78)	0 (0)	96 (5)	96 (5)	1 (1)	0 (NA)	8 (8)	8 (8)
Odisha	1181 (27)	35444 (64)	36625 (61)	1013 (86)	29516 (83)	30529 (83)	13 (1)	555 (2)	568 (2)	8 (1)	4 (31)	229 (41)	233 (41)
Puducherry	2 (100)	1054 (70)	1056 (70)	2 (100)	946 (90)	948 (90)	0 (0)	23 (2)	23 (2)	0 (0)	0 (NA)	8 (35)	8 (35)
Punjab	2987 (30)	29553 (62)	32540 (57)	1755 (59)	20387 (69)	22142 (68)	41 (2)	848 (4)	889 (4)	29 (3)	3 (7)	183 (22)	186 (22)
Rajasthan	10256 (26)	80904 (62)	91160 (54)	6496 (63)	57476 (71)	63972 (70)	254 (4)	4158 (7)	4412 (7)	70 (2)	64 (25)	1426 (34)	1490 (34)
Sikkim	45 (62)	869 (65)	914 (65)	41 (91)	851 (98)	892 (98)	13 (32)	192 (23)	205 (23)	1 (1)	1 (8)	56 (29)	57 (29)
Tamil Nadu	8362 (47)	53951 (70)	62313 (66)	6844 (82)	49310 (91)	56154 (90)	69 (1)	1619 (3)	1688 (3)	12 (1)	9 (13)	490 (30)	499 (30)
Telangana	7292 (39)	32319 (60)	39611 (55)	5723 (78)	27640 (86)	33363 (84)	168 (3)	1551 (6)	1719 (5)	24 (1)	11 (7)	237 (15)	248 (15)
Tripura	23 (56)	2153 (67)	2176 (67)	11 (48)	1940 (90)	1951 (90)	0 (0)	36 (2)	36 (2)	1 (3)	0 (NA)	10 (28)	10 (28)
Uttar Pradesh	22434 (19)	224668 (54)	247102 (47)	15500 (69)	167898 (75)	183398 (74)	851 (5)	14715 (9)	15566 (8)	500 (3)	209 (25)	4910 (33)	5119 (33)
Uttarakhand	1224 (26)	13215 (59)	14439 (53)	593 (48)	10386 (79)	10979 (76)	28 (5)	590 (6)	618 (6)	8 (1)	4 (14)	140 (24)	144 (24)
West Bengal	3663 (46)	66201 (72)	69864 (70)	2428 (66)	53508 (81)	55936 (80)	74 (3)	3014 (6)	3088 (6)	74 (2)	20 (27)	948 (31)	968 (31)
India	**159638 (28)**	**1072511 (59)**	**1232149 (51)**	**113230 (71)**	**824987 (77)**	**938217 (76)**	**4146 (4)**	**59655 (7)**	**63801 (7)**	**2074 (3)**	**953 (23)**	**22893 (38)**	**23846 (38)**

4.8 PMDT CASE FINDING IN 2022 - II

*Patients as per current facility

State/UT	Rifampicin resistant TB patients with FQ resistant diagnosed (Pre-XDR-TB), n (%)			Rifampicin resistant TB patients with FQ resistant with a DST result available for Bedaquiline/ Linezolid, n (%)			Rifampicin resistant TB patients with FQ resistant diagnosed with resistant to Bedaquline/ Linezolid or both (XDR-TB), n (%)			Bacteriologically confirmed patients (with Rifampicin resistant not detected) with a DST result available for at least Isoniazid, n (%)			Rifampicin resistance-not detected patient with Isoniazid resistant diagnosed (H Mono-poly DR-TB), n (%)		
	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB
Andaman & Nicobar Islands	0 (NA)	3 (25)	3 (25)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	77 (27)	77 (27)	0 (NA)	4 (5)	4 (5)
Andhra Pradesh	3 (13)	126 (29)	129 (28)	0 (0)	1 (1)	1 (1)	0 (0)	0 (0)	0 (0)	603 (9)	3653 (10)	4256 (10)	100 (17)	1204 (33)	1304 (31)
Arunachal Pradesh	0 (NA)	12 (38)	12 (38)	0 (NA)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	0 (0)	131 (16)	131 (16)	0 (NA)	25 (19)	25 (19)
Assam	0 (0)	45 (38)	45 (38)	0 (NA)	7 (16)	7 (16)	0 (0)	1 (14)	1 (14)	38 (4)	1212 (11)	1250 (10)	4 (11)	141 (12)	145 (12)
Bihar	67 (64)	1117 (69)	1184 (68)	0 (0)	4 (0)	4 (0)	0 (0)	0 (0)	0 (0)	1652 (13)	6240 (26)	7892 (22)	93 (6)	440 (7)	533 (7)
Chandigarh	0 (NA)	4 (24)	4 (24)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (38)	863 (47)	869 (47)	0 (0)	45 (5)	45 (5)
Chhattisgarh	1 (14)	38 (28)	39 (27)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	0 (0)	234 (14)	3152 (25)	3386 (24)	7 (3)	225 (7)	232 (7)
Dadra And Nagar Haveli And Daman And Diu	0 (NA)	5 (71)	5 (71)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (25)	53 (15)	56 (15)	0 (0)	4 (8)	4 (7)
Delhi	6 (60)	672 (49)	678 (49)	0 (0)	14 (2)	14 (2)	0 (0)	1 (7)	1 (7)	144 (8)	14594 (52)	14738 (50)	13 (9)	1194 (8)	1207 (8)
Goa	0 (NA)	14 (37)	14 (37)	0 (NA)	7 (50)	7 (50)	0 (0)	0 (0)	0 (0)	24 (41)	664 (68)	688 (66)	1 (4)	37 (6)	38 (6)
Gujarat	27 (52)	760 (45)	787 (46)	0 (0)	16 (2)	16 (2)	0 (0)	2 (13)	2 (13)	338 (6)	6479 (14)	6817 (14)	11 (3)	529 (8)	540 (8)
Haryana	6 (33)	173 (34)	179 (34)	0 (0)	7 (4)	7 (4)	0 (0)	0 (0)	0 (0)	550 (13)	6554 (24)	7104 (22)	29 (5)	517 (8)	546 (8)
Himachal Pradesh	7 (100)	21 (18)	28 (23)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	85 (37)	4950 (53)	5035 (52)	1 (1)	199 (4)	200 (4)
Jammu & Kashmir	0 (NA)	12 (38)	12 (38)	0 (NA)	1 (8)	1 (8)	0 (0)	0 (0)	0 (0)	43 (30)	1015 (19)	1058 (20)	1 (2)	71 (7)	72 (7)
Jharkhand	3 (50)	139 (47)	142 (47)	0 (0)	1 (1)	1 (1)	0 (0)	1 (100)	1 (100)	171 (9)	3785 (19)	3956 (18)	15 (9)	158 (4)	173 (4)
Karnataka	5 (26)	297 (30)	302 (30)	2 (40)	108 (36)	110 (36)	1 (50)	15 (14)	16 (15)	1404 (36)	21977 (59)	23381 (57)	50 (4)	1459 (7)	1509 (6)
Kerala	1 (33)	15 (13)	16 (14)	0 (0)	3 (20)	3 (19)	0 (0)	0 (0)	0 (0)	179 (16)	3362 (30)	3541 (28)	16 (9)	234 (7)	250 (7)
Ladakh	0 (0)	0 (0)	0 (0)	0 (NA)	0 (NA)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	49 (21)	49 (21)	0 (NA)	3 (6)	3 (6)

State/UT	Rifampicin resistant TB patients with FQ resistant diagnosed (Pre-XDR-TB), n (%)			Rifampicin resistant TB patients with FQ resistant with a DST result available for Bedaquiline/ Linezolid, n (%)			Rifampicin resistant TB patients with FQ resistant diagnosed with resistant to Bedaquline/ Linezolid or both (XDR-TB), n (%)			Bacteriologically confirmed patients (with Rifampicin resistant not detected) with a DST result available for at least Isoniazid, n (%)			Rifampicin resistance-not detected patient with Iso-niazid resistant diagnosed (H Mono-poly DR-TB), n (%)		
	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB	Private sector	Public sector	Total TB
Lakshadweep	0 (NA)	0 (0)	0 (0)	0 (NA)	0 (NA)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (NA)	1 (6)	1 (6)	0 (NA)	0 (0)	0 (0)
Madhya Pradesh	27 (59)	456 (46)	483 (47)	4 (15)	96 (21)	100 (21)	0 (0)	6 (6)	6 (6)	1739 (22)	11566 (29)	13305 (28)	89 (5)	946 (8)	1035 (8)
Maharashtra	199 (61)	3257 (58)	3456 (58)	55 (28)	739 (23)	794 (23)	6 (11)	25 (3)	31 (4)	6725 (32)	28790 (52)	35515 (46)	277 (4)	2022 (7)	2299 (6)
Manipur	0 (0)	1 (50)	1 (33)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	8 (1)	9 (1)	0 (0)	4 (50)	4 (44)
Meghalaya	2 (100)	40 (52)	42 (53)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (15)	678 (31)	686 (31)	0 (0)	68 (10)	68 (10)
Mizoram	0 (NA)	6 (27)	6 (27)	0 (NA)	1 (17)	1 (17)	0 (0)	0 (0)	0 (0)	0 (0)	75 (8)	75 (7)	0 (NA)	1 (1)	1 (1)
Nagaland	0 (NA)	1 (13)	1 (13)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	168 (10)	168 (10)	0 (NA)	22 (13)	22 (13)
Odisha	1 (25)	59 (26)	60 (26)	0 (0)	3 (5)	3 (5)	0 (0)	0 (0)	0 (0)	110 (11)	3979 (14)	4089 (14)	2 (2)	129 (3)	131 (3)
Puducherry	0 (NA)	2 (25)	2 (25)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	577 (63)	577 (62)	0 (NA)	35 (6)	35 (6)
Punjab	2 (67)	77 (42)	79 (42)	0 (0)	19 (25)	19 (24)	0 (0)	10 (53)	10 (53)	140 (8)	3230 (17)	3370 (16)	5 (4)	153 (5)	158 (5)
Rajasthan	22 (34)	626 (44)	648 (43)	0 (0)	2 (0)	2 (0)	0 (0)	0 (0)	0 (0)	503 (8)	5371 (10)	5874 (10)	21 (4)	417 (8)	438 (7)
Sikkim	1 (100)	30 (54)	31 (54)	0 (0)	2 (7)	2 (6)	0 (0)	1 (50)	1 (50)	4 (14)	127 (19)	131 (19)	0 (0)	4 (3)	4 (3)
Tamil Nadu	1 (11)	97 (20)	98 (20)	0 (0)	12 (12)	12 (12)	0 (0)	0 (0)	0 (0)	930 (14)	14476 (30)	15406 (28)	48 (5)	1384 (10)	1432 (9)
Telangana	5 (45)	123 (52)	128 (52)	0 (0)	3 (2)	3 (2)	0 (0)	1 (33)	1 (33)	484 (9)	6134 (24)	6618 (21)	45 (9)	856 (14)	901 (14)
Tripura	0 (NA)	3 (30)	3 (30)	0 (NA)	1 (33)	1 (33)	0 (0)	0 (0)	0 (0)	1 (9)	231 (12)	232 (12)	0 (0)	25 (11)	25 (11)
Uttar Pradesh	123 (59)	2843 (58)	2966 (58)	1 (1)	36 (1)	37 (1)	1 (100)	10 (28)	11 (30)	703 (5)	13638 (9)	14341 (9)	63 (9)	1236 (9)	1299 (9)
Uttarakhand	0 (0)	64 (46)	64 (44)	0 (NA)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	45 (8)	2113 (22)	2158 (21)	6 (13)	165 (8)	171 (8)
West Bengal	5 (25)	350 (37)	355 (37)	1 (20)	39 (11)	40 (11)	0 (0)	4 (10)	4 (10)	524 (22)	16671 (33)	17195 (33)	20 (4)	1080 (6)	1100 (6)
INDIA	**514 (54)**	**11488 (50)**	**12002 (50)**	**63 (12)**	**1124 (10)**	**1187 (10)**	**8 (13)**	**77 (7)**	**85 (7)**	**17391 (16)**	**186643 (24)**	**204034 (23)**	**917 (5)**	**15036 (8)**	**15953 (8)**

4.9 DR-TB TREATMENT INITIATION IN 2022

State/UT	Rifampicin-resistant TB patients initiated on treatment (MDR/RR-TB), n (%)					H mono/poly DR-TB patients initiated on treatment (H mono/poly DR-TB), n (%)		
	Private sector	Public sector	Total TB	Initiated on shorter MDR/RR-TB regimen	Initiated on longer M/XDR-TB regimen	Private sector	Public sector	Total TB
Andaman & Nicobar Islands	0 (NA)	35 (100)	35 (100)	10 (29)	25 (71)	0 (NA)	4 (100)	4 (100)
Andhra Pradesh	80 (93)	1368 (94)	1448 (94)	1191 (82)	257 (18)	99 (99)	1166 (97)	1265 (97)
Arunachal Pradesh	0 (NA)	162 (92)	162 (92)	135 (83)	27 (17)	0 (NA)	24 (96)	24 (96)
Assam	44 (86)	729 (94)	773 (94)	656 (85)	117 (15)	4 (100)	136 (96)	140 (97)
Bihar	443 (88)	3364 (85)	3807 (86)	1962 (52)	1845 (48)	92 (99)	386 (88)	478 (90)
Chandigarh	0 (0)	66 (90)	66 (89)	29 (44)	37 (56)	0 (NA)	45 (100)	45 (100)
Chhattisgarh	38 (88)	379 (93)	417 (93)	340 (82)	77 (18)	7 (100)	215 (96)	222 (96)
Dadra And Nagar Haveli And Daman And Diu	0 (NA)	19 (86)	19 (86)	7 (37)	12 (63)	0 (NA)	4 (100)	4 (100)
Delhi	43 (41)	2583 (87)	2626 (85)	741 (28)	1885 (72)	12 (92)	1147 (96)	1159 (96)
Goa	0 (NA)	54 (92)	54 (92)	23 (43)	31 (57)	1 (100)	35 (95)	36 (95)
Gujarat	148 (90)	2514 (96)	2662 (96)	1345 (51)	1317 (49)	10 (91)	522 (99)	532 (99)
Haryana	102 (78)	1783 (91)	1885 (90)	1279 (68)	606 (32)	22 (76)	474 (92)	496 (91)
Himachal Pradesh	10 (100)	216 (95)	226 (95)	140 (62)	86 (38)	1 (100)	199 (100)	200 (100)
Jammu & Kashmir	1 (100)	157 (92)	158 (92)	92 (58)	66 (42)	1 (100)	69 (97)	70 (97)
Jharkhand	37 (76)	1064 (89)	1101 (88)	761 (69)	340 (31)	14 (93)	151 (96)	165 (95)
Karnataka	52 (67)	1556 (93)	1608 (92)	814 (51)	794 (49)	44 (88)	1429 (98)	1473 (98)
Kerala	9 (64)	260 (97)	269 (95)	197 (73)	72 (27)	14 (88)	226 (97)	240 (96)
Ladakh	1 (100)	3 (100)	4 (100)	4 (100)	0 (0)	0 (NA)	3 (100)	3 (100)

State/UT	Rifampicin-resistant TB patients initiated on treatment (MDR/RR-TB), n (%)					H mono/poly DR-TB patients initiated on treatment (H mono/poly DR-TB), n (%)		
	Private sector	Public sector	Total TB	Initiated on shorter MDR/RR-TB regimen	Initiated on longer M/XDR-TB regimen	Private sector	Public sector	Total TB
Lakshadweep	0 (NA)	1 (100)	1 (100)	1 (100)	0 (0)	0 (NA)	0 (NA)	0 (NA)
Madhya Pradesh	270 (90)	2961 (90)	3231 (90)	2388 (74)	843 (26)	85 (96)	878 (93)	963 (93)
Maharashtra	881 (81)	9912 (95)	10793 (93)	2528 (23)	8265 (77)	256 (92)	1928 (95)	2184 (95)
Manipur	7 (88)	68 (77)	75 (78)	63 (84)	12 (16)	0 (NA)	4 (100)	4 (100)
Meghalaya	4 (100)	214 (87)	218 (87)	148 (68)	70 (32)	0 (NA)	67 (99)	67 (99)
Mizoram	1 (100)	105 (94)	106 (94)	55 (52)	51 (48)	0 (NA)	1 (100)	1 (100)
Nagaland	0 (NA)	94 (98)	94 (98)	72 (77)	22 (23)	0 (NA)	21 (95)	21 (95)
Odisha	10 (77)	522 (94)	532 (94)	358 (67)	174 (33)	2 (100)	124 (96)	126 (96)
Puducherry	0 (NA)	22 (96)	22 (96)	16 (73)	6 (27)	0 (NA)	35 (100)	35 (100)
Punjab	32 (78)	734 (87)	766 (86)	409 (53)	357 (47)	4 (80)	136 (89)	140 (89)
Rajasthan	215 (85)	3821 (92)	4036 (91)	2718 (67)	1318 (33)	18 (86)	386 (93)	404 (92)
Sikkim	13 (100)	181 (94)	194 (95)	103 (53)	91 (47)	0 (NA)	4 (100)	4 (100)
Tamil Nadu	50 (72)	1509 (93)	1559 (92)	1065 (68)	494 (32)	44 (92)	1348 (97)	1392 (97)
Telangana	142 (85)	1421 (92)	1563 (91)	1143 (73)	420 (27)	45 (100)	820 (96)	865 (96)
Tripura	0 (NA)	32 (89)	32 (89)	27 (84)	5 (16)	0 (NA)	25 (100)	25 (100)
Uttar Pradesh	704 (83)	13091 (89)	13795 (89)	8090 (59)	5705 (41)	62 (98)	1143 (92)	1205 (93)
Uttarakhand	22 (79)	550 (93)	572 (93)	160 (28)	412 (72)	4 (67)	162 (98)	166 (97)
West Bengal	57 (77)	2783 (92)	2840 (92)	1719 (61)	1121 (39)	18 (90)	1051 (97)	1069 (97)
INDIA	**3416 (82)**	**54333 (91)**	**57749 (91)**	**30789 (53)**	**26960 (47)**	**859 (94)**	**14368 (96)**	**15227 (95)**

4.10 TREATMENT OUTCOME OF MDR/RR TB PATIENTS INITIATED ON SHORTER MDR-TB REGIMEN DURING 2021

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Andaman & Nicobar Islands	15	3 (20)	14 (93)	0 (0)	0 (0)	1 (7)	0 (0)
Andhra Pradesh	1064	572 (54)	859 (81)	138 (13)	34 (3)	11 (1)	22 (2)
Arunachal Pradesh	147	22 (15)	96 (65)	7 (5)	35 (24)	5 (3)	4 (3)
Assam	233	54 (23)	161 (69)	32 (14)	26 (11)	8 (3)	6 (3)
Bihar	1841	326 (18)	1117 (61)	216 (12)	285 (15)	38 (2)	185 (10)
Chandigarh	4	1 (25)	3 (75)	0 (0)	0 (0)	0 (0)	1 (25)
Chhattisgarh	266	102 (38)	192 (72)	26 (10)	31 (12)	4 (2)	13 (5)
Dadra And Nagar Haveli And Daman And Diu	7	3 (43)	3 (43)	2 (29)	1 (14)	0 (0)	1 (14)
Delhi	544	170 (31)	363 (67)	39 (7)	99 (18)	26 (5)	17 (3)
Goa	5	1 (20)	2 (40)	1 (20)	2 (40)	0 (0)	0 (0)
Gujarat	908	445 (49)	664 (73)	117 (13)	47 (5)	27 (3)	53 (6)
Haryana	782	251 (32)	576 (74)	108 (14)	73 (9)	6 (1)	19 (2)
Himachal Pradesh	87	28 (32)	71 (82)	6 (7)	7 (8)	2 (2)	1 (1)
Jammu & Kashmir	65	41 (63)	50 (77)	8 (12)	1 (2)	1 (2)	5 (8)
Jharkhand	571	121 (21)	357 (63)	50 (9)	123 (22)	11 (2)	30 (5)
Karnataka	586	251 (43)	412 (70)	94 (16)	66 (11)	6 (1)	8 (1)
Kerala	50	28 (56)	39 (78)	5 (10)	5 (10)	1 (2)	0 (0)
Ladakh	3	2 (67)	3 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	1504	318 (21)	994 (66)	157 (10)	263 (17)	40 (3)	50 (3)
Maharashtra	1304	417 (32)	881 (68)	179 (14)	115 (9)	27 (2)	102 (8)
Manipur	20	10 (50)	13 (65)	3 (15)	4 (20)	0 (0)	0 (0)
Meghalaya	108	31 (29)	81 (75)	14 (13)	9 (8)	2 (2)	2 (2)

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Mizoram	56	23 (41)	51 (91)	2 (4)	3 (5)	0 (0)	0 (0)
Nagaland	56	13 (23)	38 (68)	3 (5)	12 (21)	0 (0)	3 (5)
Odisha	243	83 (34)	176 (72)	29 (12)	22 (9)	1 (0)	15 (6)
Puducherry	4	2 (50)	3 (75)	0 (0)	1 (25)	0 (0)	0 (0)
Punjab	278	78 (28)	181 (65)	36 (13)	38 (14)	5 (2)	18 (6)
Rajasthan	1071	385 (36)	740 (69)	138 (13)	143 (13)	17 (2)	33 (3)
Sikkim	122	41 (34)	95 (78)	19 (16)	5 (4)	3 (2)	0 (0)
Tamil Nadu	661	277 (42)	457 (69)	71 (11)	90 (14)	24 (4)	19 (3)
Telangana	593	343 (58)	475 (80)	56 (9)	39 (7)	2 (0)	21 (4)
Tripura	3	1 (33)	1 (33)	1 (33)	1 (33)	0 (0)	0 (0)
Uttar Pradesh	7533	1602 (21)	4953 (66)	1184 (16)	932 (12)	108 (1)	356 (5)
Uttarakhand	146	45 (31)	103 (71)	15 (10)	20 (14)	4 (3)	4 (3)
West Bengal	1216	230 (19)	880 (72)	164 (13)	103 (8)	35 (3)	34 (3)
INDIA	**22096**	**6320 (29)**	**15104 (68)**	**2920 (13)**	**2635 (12)**	**415 (2)**	**1022 (5)**

As per the definition of a case, records with "treatment regimen changed" (not a definitive outcome) as an outcome have been excluded from the denominator.

Not evaluated includes patients still on treatment, outcome not reported or data entry errors.

4.11 TREATMENT OUTCOME OF H-MONO/POLY RESISTANT TB PATIENTS INITIATED ON TREATMENT DURING 2021

State/UT	Total H-mono/ poly DR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Andaman & Nicobar Islands	1	1 (100)	1 (100)	(0)	(0)	(0)	0 (0)
Andhra Pradesh	1297	772 (60)	1141 (88)	116 (9)	9 (1)	3 (0)	28 (2)
Arunachal Pradesh	19	6 (32)	14 (74)	2 (11)	(0)	1 (5)	2 (11)
Assam	225	84 (37)	186 (83)	10 (4)	18 (8)	3 (1)	8 (4)
Bihar	238	72 (30)	198 (83)	5 (2)	16 (7)	2 (1)	17 (7)
CHANDIGARH	44	23 (52)	34 (77)	1 (2)	5 (11)	(0)	4 (9)
Chhattisgarh	247	114 (46)	191 (77)	17 (7)	11 (4)	2 (1)	26 (11)
Dadra and Nagar Haveli and Daman and Diu	3	1 (33)	2 (67)	(0)	1 (33)	(0)	0 (0)
Delhi	938	494 (53)	735 (78)	52 (6)	101 (11)	28 (3)	22 (2)
Goa	32	19 (59)	20 (63)	4 (13)	6 (19)	1 (3)	1 (3)
Gujarat	538	314 (58)	395 (73)	69 (13)	18 (3)	41 (8)	15 (3)
Haryana	738	395 (54)	653 (88)	46 (6)	20 (3)	7 (1)	12 (2)
Himachal Pradesh	158	83 (53)	142 (90)	12 (8)	2 (1)	(0)	2 (1)
Jammu & Kashmir	41	30 (73)	35 (85)	1 (2)	1 (2)	1 (2)	3 (7)
Jharkhand	83	37 (45)	66 (80)	5 (6)	6 (7)	1 (1)	5 (6)
Karnataka	1126	656 (58)	912 (81)	118 (10)	61 (5)	21 (2)	14 (1)
Kerala	141	74 (52)	115 (82)	15 (11)	5 (4)	3 (2)	3 (2)
Ladakh	2	(0)	1 (50)	(0)	(0)	1 (50)	0 (0)
MADHYA PRADESH	835	303 (36)	651 (78)	69 (8)	53 (6)	31 (4)	31 (4)
Maharashtra	2443	1032 (42)	1991 (81)	163 (7)	132 (5)	35 (1)	122 (5)
Manipur	51	22 (43)	35 (69)	1 (2)	1 (2)	1 (2)	13 (25)
Meghalaya	72	37 (51)	66 (92)	4 (6)	2 (3)	(0)	0 (0)

State/UT	Total H-mono/ poly DR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Mizoram	5	(0)	4 (80)	(0)	(0)	(0)	1 (20)
Nagaland	12	3 (25)	7 (58)	(0)	3 (25)	1 (8)	1 (8)
Odisha	170	104 (61)	158 (93)	6 (4)	1 (1)	1 (1)	4 (2)
Puducherry	22	12 (55)	14 (64)	2 (9)	5 (23)	1 (5)	0 (0)
Punjab	380	142 (37)	311 (82)	31 (8)	24 (6)	4 (1)	10 (3)
Rajasthan	1192	493 (41)	962 (81)	82 (7)	77 (6)	33 (3)	38 (3)
Sikkim	15	5 (33)	12 (80)	1 (7)	(0)	(0)	2 (13)
Tamil Nadu	1443	815 (56)	1146 (79)	124 (9)	122 (8)	27 (2)	24 (2)
Telangana	502	340 (68)	426 (85)	37 (7)	10 (2)	6 (1)	23 (5)
Tripura	47	36 (77)	40 (85)	4 (9)	2 (4)	(0)	1 (2)
Uttar Pradesh	2234	845 (38)	1896 (85)	137 (6)	80 (4)	26 (1)	95 (4)
Uttarakhand	100	38 (38)	84 (84)	9 (9)	3 (3)	3 (3)	1 (1)
West Bengal	792	360 (45)	659 (83)	36 (5)	48 (6)	16 (2)	33 (4)
INDIA	**16186**	**7762 (48)**	**13303 (82)**	**1179 (7)**	**843 (5)**	**300 (2)**	**561 (3)**

As per the definition of a case, records with "treatment regimen changed" (not a definitive outcome) as an outcome have been excluded from the denominator.

Not evaluated includes patients still on treatment, outcome not reported or data entry errors.

4.12 TREATMENT OUTCOME OF MDR/ RR TB PATIENTS INITIATED ON LONGER ORAL M/XDR-TB REGIMEN DURING 2020

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Andaman & Nicobar Islands	9	1 (11)	6 (67)	2 (22)	0 (0)	0 (0)	1 (11)
Andhra Pradesh	241	105 (44)	162 (67)	62 (26)	12 (5)	1 (0)	4 (2)
Arunachal Pradesh	57	8 (14)	42 (74)	1 (2)	12 (21)	0 (0)	2 (4)
Assam	256	86 (34)	189 (74)	33 (13)	28 (11)	2 (1)	4 (2)
Bihar	570	157 (28)	396 (69)	80 (14)	42 (7)	9 (2)	43 (8)
Chandigarh	23	8 (35)	17 (74)	4 (17)	1 (4)	0 (0)	1 (4)
Chhattisgarh	31	7 (23)	22 (71)	4 (13)	4 (13)	0 (0)	1 (3)
Dadra And Nagar Haveli And Daman And Diu	18	11 (61)	14 (78)	2 (11)	1 (6)	1 (6)	0 (0)
Delhi	839	217 (26)	585 (70)	128 (15)	90 (11)	15 (2)	21 (3)
Goa	28	12 (43)	15 (54)	5 (18)	8 (29)	0 (0)	0 (0)
Gujarat	1032	540 (52)	736 (71)	194 (19)	43 (4)	39 (4)	20 (2)
Haryana	283	72 (25)	194 (69)	50 (18)	33 (12)	1 (0)	5 (2)
Himachal Pradesh	75	20 (27)	65 (87)	7 (9)	3 (4)	0 (0)	0 (0)
Jammu & Kashmir	27	13 (48)	16 (59)	6 (22)	3 (11)	0 (0)	2 (7)
Jharkhand	76	21 (28)	59 (78)	11 (14)	5 (7)	0 (0)	1 (1)
Karnataka	454	187 (41)	296 (65)	105 (23)	39 (9)	12 (3)	2 (0)
Kerala	96	39 (41)	73 (76)	15 (16)	6 (6)	0 (0)	2 (2)
Ladakh	1	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	416	107 (26)	273 (66)	78 (19)	44 (11)	3 (1)	18 (4)
Maharashtra	3453	1117 (32)	2435 (71)	417 (12)	291 (8)	58 (2)	252 (7)
Manipur	17	4 (24)	11 (65)	2 (12)	2 (12)	0 (0)	2 (12)
Meghalaya	73	16 (22)	53 (73)	11 (15)	9 (12)	0 (0)	0 (0)
Mizoram	82	32 (39)	64 (78)	13 (16)	5 (6)	0 (0)	0 (0)

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Nagaland	17	4 (24)	11 (65)	3 (18)	2 (12)	0 (0)	1 (6)
Odisha	91	25 (27)	62 (68)	21 (23)	5 (5)	0 (0)	3 (3)
Puducherry	6	5 (83)	5 (83)	0 (0)	1 (17)	0 (0)	0 (0)
Punjab	215	51 (24)	139 (65)	34 (16)	30 (14)	4 (2)	8 (4)
Rajasthan	902	297 (33)	571 (63)	196 (22)	80 (9)	16 (2)	39 (4)
Sikkim	79	24 (30)	66 (84)	7 (9)	5 (6)	1 (1)	0 (0)
Tamil Nadu	397	154 (39)	244 (61)	84 (21)	50 (13)	10 (3)	9 (2)
Telangana	357	181 (51)	235 (66)	67 (19)	23 (6)	6 (2)	26 (7)
Tripura	10	6 (60)	9 (90)	1 (10)	0 (0)	0 (0)	0 (0)
Uttar Pradesh	1693	440 (26)	1172 (69)	307 (18)	124 (7)	11 (1)	79 (5)
Uttarakhand	158	32 (20)	103 (65)	26 (16)	12 (8)	1 (1)	16 (10)
West Bengal	488	98 (20)	336 (69)	92 (19)	38 (8)	4 (1)	18 (4)
INDIA	**12570**	**4097 (33)**	**8677 (69)**	**2068 (16)**	**1051 (8)**	**194 (2)**	**580 (5)**

As per the definition of a case, records with "treatment regimen changed" (not a definitive outcome) as an outcome have been excluded from the denominator.

Not evaluated includes patients still on treatment, outcome not reported or data entry errors.

4.13 TREATMENT OUTCOME OF MDR/RR-TB PATIENTS INITIATED ON TREATMENT IN 2020

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Andaman & Nicobar Islands	42	5 (12)	25 (60)	11 (26)	2 (5)	3 (7)	1 (2)
Andhra Pradesh	1394	649 (47)	1028 (74)	212 (15)	79 (6)	8 (1)	67 (5)
Arunachal Pradesh	194	21 (11)	140 (72)	9 (5)	31 (16)	1 (1)	13 (7)
Assam	675	178 (26)	454 (67)	83 (12)	80 (12)	21 (3)	37 (5)
Bihar	2285	400 (18)	1442 (63)	268 (12)	290 (13)	42 (2)	243 (11)
Chandigarh	50	25 (50)	39 (78)	7 (14)	3 (6)	(0)	1 (2)
Chhattisgarh	318	93 (29)	216 (68)	36 (11)	31 (10)	3 (1)	32 (10)
Dadra And Nagar Haveli And Daman And Diu	18	9 (50)	11 (61)	3 (17)	3 (17)	1 (6)	0 (0)
Delhi	1754	549 (31)	1185 (68)	181 (10)	251 (14)	44 (3)	93 (5)
Goa	64	21 (33)	43 (67)	9 (14)	7 (11)	2 (3)	3 (5)
Gujarat	1941	850 (44)	1316 (68)	274 (14)	146 (8)	97 (5)	108 (6)
Haryana	1529	467 (31)	1112 (73)	178 (12)	136 (9)	18 (1)	85 (6)
Himachal Pradesh	205	87 (42)	175 (85)	15 (7)	10 (5)	1 (0)	4 (2)
Jammu & Kashmir	128	63 (49)	89 (70)	19 (15)	10 (8)	4 (3)	6 (5)
Jharkhand	839	226 (27)	557 (66)	78 (9)	119 (14)	12 (1)	73 (9)
Karnataka	1249	536 (43)	834 (67)	225 (18)	128 (10)	26 (2)	36 (3)
Kerala	258	118 (46)	204 (79)	34 (13)	13 (5)	3 (1)	4 (2)
Ladakh	6	0 (0)	3 (50)	1 (17)	0 (0)	0 (0)	2 (33)
Madhya Pradesh	3032	665 (22)	1896 (63)	377 (12)	454 (15)	79 (3)	226 (7)
Maharashtra	5974	1654 (28)	4035 (68)	817 (14)	610 (10)	82 (1)	430 (7)
Manipur	60	23 (38)	39 (65)	8 (13)	6 (10)	(0)	7 (12)
Meghalaya	165	33 (20)	113 (68)	19 (12)	22 (13)	9 (5)	2 (1)

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Mizoram	153	60 (39)	116 (76)	20 (13)	8 (5)	4 (3)	5 (3)
Nagaland	99	28 (28)	62 (63)	10 (10)	18 (18)	3 (3)	6 (6)
Odisha	484	173 (36)	355 (73)	60 (12)	51 (11)	5 (1)	13 (3)
Puducherry	19	11 (58)	14 (74)	(0)	2 (11)	3 (16)	0 (0)
Punjab	718	217 (30)	500 (70)	96 (13)	77 (11)	17 (2)	28 (4)
Rajasthan	2739	1024 (37)	1880 (69)	357 (13)	311 (11)	52 (2)	139 (5)
Sikkim	155	43 (28)	131 (85)	15 (10)	7 (5)	(0)	2 (1)
Tamil Nadu	1468	616 (42)	944 (64)	217 (15)	199 (14)	49 (3)	59 (4)
Telangana	1410	704 (50)	984 (70)	182 (13)	82 (6)	16 (1)	146 (10)
Tripura	23	15 (65)	18 (78)	3 (13)	2 (9)	(0)	0 (0)
Uttar Pradesh	10049	2083 (21)	6769 (67)	1473 (15)	1115 (11)	167 (2)	525 (5)
Uttarakhand	408	101 (25)	269 (66)	46 (11)	47 (12)	11 (3)	35 (9)
West Bengal	2017	626 (31)	1454 (72)	285 (14)	156 (8)	51 (3)	71 (4)
INDIA	**41922**	**12373 (30)**	**28452 (68)**	**5628 (13)**	**4506 (11)**	**834 (2)**	**2502 (6)**

As per the definition of a case, records with "treatment regimen changed" (not a definitive outcome) as an outcome have been excluded from the denominator.

Not evaluated includes patients still on treatment, outcome not reported or data entry errors.

4.14 TREATMENT OUTCOME OF XDR-TB PATIENTS INITIATED ON TREATMENT DURING 2020

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Andaman & Nicobar Islands	7	1 (14)	4 (57)	2 (29)	0 (0)	1 (14)	0 (0)
Andhra Pradesh	86	39 (45)	51 (59)	18 (21)	10 (12)	4 (5)	3 (3)
Arunachal Pradesh	9	1 (11)	5 (56)	0 (0)	2 (22)	2 (22)	0 (0)
Assam	66	17 (26)	45 (68)	12 (18)	5 (8)	3 (5)	1 (2)
Bihar	768	172 (22)	464 (60)	122 (16)	82 (11)	23 (3)	77 (10)
Chandigarh	3	1 (33)	2 (67)	1 (33)	0 (0)	0 (0)	0 (0)
Chhattisgarh	28	5 (18)	18 (64)	4 (14)	2 (7)	1 (4)	3 (11)
Dadra And Nagar Haveli and Daman and Diu	10	7 (70)	9 (90)	1 (10)	0 (0)	0 (0)	0 (0)
Delhi	529	149 (28)	334 (63)	65 (12)	58 (11)	30 (6)	42 (8)
Goa	12	4 (33)	5 (42)	3 (25)	4 (33)	0 (0)	0 (0)
Gujarat	750	355 (47)	467 (62)	155 (21)	28 (4)	76 (10)	24 (3)
Haryana	184	41 (22)	117 (64)	30 (16)	18 (10)	11 (6)	8 (4)
Himachal Pradesh	31	7 (23)	24 (77)	6 (19)	0 (0)	1 (3)	0 (0)
Jammu & Kashmir	19	10 (53)	12 (63)	2 (11)	2 (11)	0 (0)	3 (16)
Jharkhand	62	10 (16)	36 (58)	12 (19)	10 (16)	1 (2)	3 (5)
Karnataka	289	101 (35)	171 (59)	62 (21)	30 (10)	17 (6)	9 (3)
Kerala	18	10 (56)	16 (89)	2 (11)	0 (0)	0 (0)	0 (0)
Madhya Pradesh	427	98 (23)	261 (61)	67 (16)	42 (10)	24 (6)	33 (8)
Maharashtra	2504	801 (32)	1656 (66)	372 (15)	242 (10)	80 (3)	154 (6)
Manipur	2	0 (0)	1 (50)	1 (50)	0 (0)	0 (0)	0 (0)
Meghalaya	49	13 (27)	39 (80)	4 (8)	6 (12)	0 (0)	0 (0)
Mizoram	4	4 (100)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Nagaland	2	1 (50)	1 (50)	1 (50)	0 (0)	0 (0)	0 (0)

State/UT	Total MDR/ RR-TB initiated	Cured	Treatment success	Died	Lost to follow up	Treatment failure	Not evaluated
Odisha	60	21 (35)	41 (68)	11 (18)	1 (2)	4 (7)	3 (5)
Puducherry	3	1 (33)	1 (33)	0 (0)	1 (33)	1 (33)	0 (0)
Punjab	72	16 (22)	48 (67)	10 (14)	7 (10)	3 (4)	4 (6)
Rajasthan	868	248 (29)	513 (59)	184 (21)	83 (10)	19 (2)	69 (8)
Sikkim	42	15 (36)	34 (81)	3 (7)	3 (7)	1 (2)	1 (2)
Tamil Nadu	151	53 (35)	79 (52)	34 (23)	16 (11)	17 (11)	5 (3)
Telangana	163	86 (53)	112 (69)	33 (20)	7 (4)	4 (2)	7 (4)
Tripura	4	3 (75)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Uttar Pradesh	2157	459 (21)	1332 (62)	425 (20)	202 (9)	76 (4)	122 (6)
Uttarakhand	82	20 (24)	56 (68)	14 (17)	3 (4)	4 (5)	5 (6)
West Bengal	226	29 (13)	133 (59)	46 (20)	20 (9)	20 (9)	7 (3)
INDIA	**9687**	**2798 (29)**	**6095 (63)**	**1702 (18)**	**884 (9)**	**423 (4)**	**583 (6)**

As per the definition of a case, records with "treatment regimen changed" (not a definitive outcome) as an outcome have been excluded from the denominator.

Not evaluated includes patients still on treatment, outcome not reported or data entry errors.

XDR-TB as per older definition

5.1 PRIVATE HEALTH FACILITIES REGISTRATION STATUS

State/UT	Hospitals	Laboratories	Chemists	Health Facilities Registered
Andaman & Nicobar Islands	13	0	0	13
Andhra Pradesh	7272	2050	21113	30435
Arunachal Pradesh	45	8	35	88
Assam	2099	656	2497	5252
Bihar	9060	752	921	10733
CHANDIGARH	127	53	19	199
Chhattisgarh	2386	503	4297	7186
Dadra and Nagar Haveli and Daman and Diu	114	21	67	202
Delhi	4468	429	55	4952
Goa	562	67	327	956
Gujarat	11666	722	6604	18992
Haryana	2817	736	3247	6800
Himachal Pradesh	467	248	18	733
Jammu & Kashmir	706	402	321	1429
Jharkhand	2543	231	991	3765
Karnataka	17885	2422	13718	34025
Kerala	6506	1563	10	8079
Ladakh	40	9	3	52
Madhya Pradesh	7966	669	1232	9867
Maharashtra	42835	4150	6561	53546
Manipur	80	49	164	293
Meghalaya	89	24	39	152
Mizoram	35	18	1129	1182
Nagaland	59	21	74	154
Odisha	2568	420	1044	4032
Puducherry	34	4	10	48
Punjab	2613	528	189	3330
Rajasthan	2954	489	791	4234
Sikkim	74	24	176	274
Tamil Nadu	18937	3485	4907	27329
Telangana	5581	873	1716	8170
Tripura	80	166	30	276
Uttar Pradesh	19083	1989	1636	22708
Uttarakhand	670	137	224	1031
West Bengal	9399	3463	5217	18079
India	**181833**	**27381**	**79382**	**288596**

5.2 PRIVATE HEALTH FACILITIES THAT HAVE NOTIFIED AT LEAST ONE TB PATIENT DURING THE YEAR 2022

State/UT	Hospitals	Laboratories	Chemists	Total Health Facilities notifying TB case
Andaman & Nicobar Islands	4	0	0	4
Andhra Pradesh	2174	661	24	2859
Arunachal Pradesh	4	2	0	6
Assam	507	380	55	942
Bihar	3049	115	7	3171
Chandigarh	20	36	0	56
Chhattisgarh	798	143	1	942
Dadra And Nagar Haveli And Daman And Diu	15	3	0	18
Delhi	740	71	0	811
Goa	57	17	0	74
Gujarat	4017	285	0	4302
Haryana	1058	331	2	1391
Himachal Pradesh	106	50	0	156
Jammu & Kashmir	221	100	3	324
Jharkhand	647	67	7	721
Karnataka	2175	725	27	2927
Kerala	315	232	0	547
Ladakh	3	1	0	4
Madhya Pradesh	2343	251	7	2601
Maharashtra	6793	1771	69	8633
Manipur	25	23	0	48
Meghalaya	19	12	0	31
Mizoram	10	7	0	17
Nagaland	21	21	0	42
Odisha	675	184	32	891
Puducherry	4	2	0	6
Punjab	786	166	25	977
Rajasthan	1222	246	12	1480
Sikkim	8	2	0	10
Tamil Nadu	2515	739	48	3302
Telangana	1565	331	49	1945
Tripura	11	25	0	36
Uttar Pradesh	5765	574	27	6366
Uttarakhand	225	61	1	287
West Bengal	1293	1698	35	3026
India	**39190**	**9332**	**431**	**48953**

6 ACTIVE CASE FINDING

State/UT	Vulnerable individuals screened for symptoms	TB symptomatic identified and examined, n (%)	TB patients diagnosed, n (%)
Andaman & Nicobar Islands	53607	836 (1.6)	25 (3)
Andhra Pradesh	232981	13688 (5.9)	298 (2.2)
Arunachal Pradesh	127	127 (100)	0 (0)
Assam	484776	25629 (5.3)	804 (3.1)
Bihar	2904	163 (5.6)	3 (1.8)
Chandigarh	298952	169 (0.1)	35 (20.7)
Chhattisgarh	28312762	163457 (0.6)	3157 (1.9)
Dadra and Nagar Haveli and Daman and Diu	270088	1249 (0.5)	1 (0.1)
Delhi	39308	199 (0.5)	34 (17.1)
Goa	150635	369 (0.2)	5 (1.4)
Gujarat	6188549	51861 (0.8)	2347 (4.5)
Haryana	1861973	18996 (1)	452 (2.4)
Himachal Pradesh	6858516	51312 (0.7)	218 (0.4)
Jammu & Kashmir	460055	3525 (0.8)	24 (0.7)
Jharkhand	4264488	36346 (0.9)	2723 (7.5)
Karnataka	14553008	115070 (0.8)	1484 (1.3)
Kerala	856303	47572 (5.6)	979 (2.1)
Ladakh	65106	3324 (5.1)	5 (0.2)
Lakshadweep	13658	205 (1.5)	0 (0)
Madhya Pradesh	12894850	188527 (1.5)	6316 (3.4)
Maharashtra	78938079	388798 (0.5)	8125 (2.1)
Manipur	330	16 (4.8)	2 (12.5)
Meghalaya	1307056	9832 (0.8)	216 (2.2)
Mizoram	95031	1367 (1.4)	18 (1.3)
Nagaland	64827	2008 (3.1)	28 (1.4)
Odisha	3708035	181391 (4.9)	3715 (2)

State/UT	Vulnerable individuals screened for symptoms	TB symptomatic identified and examined, n (%)	TB patients diagnosed, n (%)
Puducherry	0	NA	NA
Punjab	369521	911 (0.2)	86 (9.4)
Rajasthan	2164807	9566 (0.4)	195 (2)
Sikkim	61021	3120 (5.1)	22 (0.7)
Tamil Nadu	525849	27343 (5.2)	723 (2.6)
Telangana	2595701	149455 (5.8)	2763 (1.8)
Tripura	281547	5527 (2)	67 (1.2)
Uttar Pradesh	36972221	155535 (0.4)	10532 (6.8)
Uttarakhand	117277	936 (0.8)	13 (1.4)
West Bengal	16181911	287375 (1.8)	2863 (1)
India	**221252033**	**1947018 (0.9)**	**48329 (2.5)**

7.1 HOUSEHOLD CONTACT (HHC) TRACING AMONG PULMONARY BACTERIOLOGICALLY CONFIRMED TB (PBCT) PATIENTS [2022 NI-KSHAY]

State/UTs/UTs	Notified PBCT	No. of Notified PBCT visited for contact tracing (%)	No. of HHC (any age) enumerated during contact tracing visit	Average no. of HHC (any age) per notified PBCT visited	No. of HHC <5years enumerated during contact tracing visit among total HHC enumerated (%)	Average no. of HHC <5years per notified PBCT visited	No. of HHC ≥5years enumerated during contact tracing visit among total HHC enumerated (%)	Average no. of HHC ≥5years per notified PBCT visited	No. of Notified PBCT with "0" HHC <5years reported during visits (%)	No. of Notified PBCT with "0" HHC ≥5years reported during visits (%)	No. of Notified PBCT with "0" HHC (any age) reported during visits (%)
Andaman And Nicobar Islands	310	294 (95%)	1386	4.7	89 (6%)	0.3	1297 (94%)	4.4	145 (49%)	11 (4%)	11 (4%)
Andhra Pradesh	40833	36126 (88%)	94303	2.6	4186 (4%)	0.1	90117 (96%)	2.5	24942 (69%)	1613 (4%)	1591 (4%)
Arunachal Pradesh	1403	982 (70%)	3999	4.1	758 (19%)	0.8	3241 (81%)	3.3	549 (56%)	232 (24%)	191 (19%)
Assam	19557	15463 (79%)	61414	4.0	5445 (9%)	0.4	55969 (91%)	3.6	5680 (37%)	1046 (7%)	957 (6%)
Bihar	41920	24487 (58%)	132398	5.4	18764 (14%)	0.8	113634 (86%)	4.6	17693 (72%)	10225 (42%)	9927 (41%)
Chandigarh	1792	1700 (95%)	5514	3.2	456 (8%)	0.3	5058 (92%)	3.0	201 (12%)	14 (1%)	14 (1%)
Chhattisgarh	15774	13872 (88%)	63424	4.6	6919 (11%)	0.5	56505 (89%)	4.1	3373 (24%)	557 (4%)	520 (4%)
Dadra And Nagar Haveli And Daman And Diu	333	332 (100%)	1134	3.4	63 (6%)	0.2	1071 (94%)	3.2	99 (30%)	0 (0%)	0 (0%)
Delhi	29750	22392 (75%)	72577	3.2	7138 (10%)	0.3	65439 (90%)	2.9	4448 (20%)	859 (4%)	849 (4%)
Goa	937	881 (94%)	2769	3.1	130 (5%)	0.1	2639 (95%)	3.0	572 (65%)	44 (5%)	43 (5%)
Gujarat	49923	47209 (95%)	173593	3.7	15436 (9%)	0.3	158157 (91%)	3.4	14378 (30%)	662 (1%)	634 (1%)
Haryana	37414	33634 (90%)	145130	4.3	11828 (8%)	0.4	133302 (92%)	4.0	7209 (21%)	748 (2%)	733 (2%)
Himachal Pradesh	9686	9424 (97%)	32608	3.5	2248 (7%)	0.2	30360 (93%)	3.2	2750 (29%)	83 (1%)	82 (1%)
Jammu And Kashmir	5111	4693 (92%)	21374	4.6	1982 (9%)	0.4	19392 (91%)	4.1	1674 (36%)	104 (2%)	99 (2%)
Jharkhand	27941	20900 (75%)	92109	4.4	12264 (13%)	0.6	79845 (87%)	3.8	6486 (31%)	2769 (13%)	2719 (13%)
Karnataka	42520	40962 (96%)	143237	3.5	8751 (6%)	0.2	134486 (94%)	3.3	15330 (37%)	385 (1%)	372 (1%)
Kerala	12593	11728 (93%)	32997	2.8	2286 (7%)	0.2	30711 (93%)	2.6	2754 (23%)	196 (2%)	182 (2%)
Ladakh	217	206 (95%)	720	3.5	72 (10%)	0.3	648 (90%)	3.1	89 (43%)	11 (5%)	11 (5%)

Note: Household contacts include close contacts who are not in the household but shared an enclosed space, such as at a social gathering, workplace or facility for extended periods.

State/UTs/UTs	Notified PBCT	No. of Notified PBCT visited for contact tracing (%)	No. of HHC (any age) enumerated during contact tracing visit	Average no. of HHC (any age) per notified PBCT visited	No. of HHC <5years enumerated during contact tracing visit among total HHC enumerated (%)	Average no. of HHC <5years per notified PBCT visited	No. of HHC ≥5years enumerated during contact tracing visit among total HHC enumerated (%)	Average no. of HHC ≥5years per notified PBCT visited	No. of Notified PBCT with "0" HHC <5years reported during visits (%)	No. of Notified PBCT with "0" HHC ≥5years reported during visits (%)	No. of Notified PBCT with "0" HHC (any age) reported during visits (%)
Lakshadweep	17	17 (100%)	43	2.5	9 (21%)	0.5	34 (79%)	2.0	10 (59%)	0 (0%)	0 (0%)
Madhya Pradesh	61776	53508 (87%)	221772	4.1	25251 (11%)	0.5	196521 (89%)	3.7	12607 (24%)	1850 (3%)	1738 (3%)
Maharashtra	70206	64748 (92%)	230636	3.6	14051 (6%)	0.2	216585 (94%)	3.3	29334 (45%)	1298 (2%)	1234 (2%)
Manipur	1238	1018 (82%)	4672	4.6	426 (9%)	0.4	4246 (91%)	4.2	464 (46%)	117 (11%)	116 (11%)
Meghalaya	2692	2218 (82%)	15953	7.2	2135 (13%)	1.0	13818 (87%)	6.2	568 (26%)	175 (8%)	170 (8%)
Mizoram	1096	1045 (95%)	3836	3.7	864 (23%)	0.8	2972 (77%)	2.8	295 (28%)	46 (4%)	20 (2%)
Nagaland	2101	1729 (82%)	6329	3.7	546 (9%)	0.3	5783 (91%)	3.3	689 (40%)	234 (14%)	211 (12%)
Odisha	28898	27364 (95%)	103016	3.8	8431 (8%)	0.3	94585 (92%)	3.5	9096 (33%)	513 (2%)	475 (2%)
Puducherry	907	899 (99%)	2275	2.5	91 (4%)	0.1	2184 (96%)	2.4	405 (45%)	11 (1%)	11 (1%)
Punjab	25992	23763 (91%)	99073	4.2	7835 (8%)	0.3	91238 (92%)	3.8	5006 (21%)	492 (2%)	479 (2%)
Rajasthan	71377	60460 (85%)	250376	4.1	24054 (10%)	0.4	226322 (90%)	3.7	17043 (28%)	1973 (3%)	1871 (3%)
Sikkim	791	598 (76%)	1850	3.1	98 (5%)	0.2	1752 (95%)	2.9	379 (63%)	92 (15%)	82 (14%)
Tamil Nadu	53122	50963 (96%)	131049	2.6	5408 (4%)	0.1	125641 (96%)	2.5	31438 (62%)	882 (2%)	848 (2%)
Telangana	33773	31120 (92%)	92651	3.0	4844 (5%)	0.2	87807 (95%)	2.8	16790 (54%)	518 (2%)	509 (2%)
Tripura	1900	1795 (94%)	6345	3.5	347 (5%)	0.2	5998 (95%)	3.3	871 (49%)	28 (2%)	28 (2%)
Uttar Pradesh	189205	162111 (86%)	845733	5.2	74997 (9%)	0.5	770736 (91%)	4.8	46326 (29%)	9623 (6%)	9246 (6%)
Uttarakhand	12342	10621 (86%)	45154	4.3	4642 (10%)	0.4	40512 (90%)	3.8	3122 (29%)	371 (3%)	325 (3%)
West Bengal	62448	58268 (93%)	203273	3.5	20001 (10%)	0.3	183272 (90%)	3.1	15385 (26%)	1447 (2%)	1422 (2%)
India	**957855**	**837069 (87%)**	**3356272**	**4.0**	**292945 (9%)**	**0.3**	**3063327 (91%)**	**3.7**	**298200 (36%)**	**39229 (5%)**	**37720 (5%)**

7.2 TB Preventive Treatment (TPT) in eligible children <5 years household contact (HHC) of Pulmonary Bacteriologically Confirmed TB (PBCT) [2022 Ni-kshay]

States/UTs	No. of HHC <5years of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB and TPT initiation	
		No. of HHC <5years of PBCT screened for TB (%)	No. of HHC <5years of PBCT symptomatic for TB (%)	No. of HHC <5years of PBCT evaluated for TB (%)	No. of HHC <5years of PBCT diagnosed with TB (%)	No. of HHC <5years of PBCT put on TB treatment (%)	No. of HHC <5years of PBCT not diagnosed TB and eligible for TPT	No. of HHC <5years of PBCT initiated TPT (%)
Andaman and Nicobar Islands	89	89 (100%)	1 (1%)	1 (100%)	1 (100%)	1 (100%)	88 (99%)	58 (66%)
Andhra Pradesh	4186	3996 (95%)	31 (1%)	22 (71%)	9 (41%)	2 (22%)	4177 (100%)	1626 (39%)
Arunachal Pradesh	758	690 (91%)	64 (9%)	60 (94%)	60 (100%)	60 (100%)	698 (92%)	81 (12%)
Assam	5445	4491 (82%)	78 (2%)	44 (56%)	17 (39%)	4 (24%)	5428 (100%)	2443 (45%)
Bihar	18764	16655 (89%)	208 (1%)	96 (46%)	74 (77%)	57 (77%)	18690 (100%)	6198 (33%)
Chandigarh	456	430 (94%)	1 (0%)	1 (100%)	0 (0%)	NA	456 (100%)	370 (81%)
Chhattisgarh	6919	6280 (91%)	116 (2%)	71 (61%)	53 (75%)	31 (58%)	6866 (99%)	4409 (64%)
Dadra and Nagar Haveli and Daman and Diu	63	63 (100%)	0 (0%)	NA	NA	NA	63 (100%)	63 (100%)
Delhi	7138	5817 (81%)	199 (3%)	111 (56%)	68 (61%)	47 (69%)	7070 (99%)	3805 (54%)
Goa	130	129 (99%)	6 (5%)	6 (100%)	0 (0%)	NA	130 (100%)	95 (73%)
Gujarat	15436	14781 (96%)	423 (3%)	357 (84%)	43 (12%)	34 (79%)	15393 (100%)	9712 (63%)
Haryana	11828	11589 (98%)	47 (0%)	18 (38%)	9 (50%)	5 (56%)	11819 (100%)	10508 (89%)
Himachal Pradesh	2248	2227 (99%)	32 (1%)	32 (100%)	12 (38%)	12 (100%)	2236 (99%)	2170 (97%)
Jammu and Kashmir	1982	1802 (91%)	26 (1%)	23 (88%)	9 (39%)	8 (89%)	1973 (100%)	1338 (68%)
Jharkhand	12264	10203 (83%)	153 (1%)	84 (55%)	71 (85%)	26 (37%)	12193 (99%)	7009 (57%)
Karnataka	8751	8320 (95%)	306 (4%)	288 (94%)	117 (41%)	106 (91%)	8634 (99%)	6193 (72%)
Kerala	2286	2099 (92%)	218 (10%)	204 (94%)	23 (11%)	23 (100%)	2263 (99%)	1599 (71%)

Note: Data source of TPT care cascade is contact tracing aggregate report while TBI testing (column I) and Positives (column J) is from Ni-kshay TPT dashboard; Data of Madhya Pradesh, Jharkhand, Haryana, Goa, Kerala, Meghalaya, Jammu-Kashmir, DNH-DD, Delhi and West Bengal updated after state level validation

States/UTs	No. of HHC <5years of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB and TPT initiation	
		No. of HHC <5years of PBCT screened for TB (%)	No. of HHC <5years of PBCT symptomatic for TB (%)	No. of HHC <5years of PBCT evaluated for TB (%)	No. of HHC <5years of PBCT diagnosed with TB (%)	No. of HHC <5years of PBCT put on TB treatment (%)	No. of HHC <5years of PBCT not diagnosed TB and eligible for TPT	No. of HHC <5years of PBCT initiated TPT (%)
Ladakh	72	70 (97%)	1 (1%)	1 (100%)	1 (100%)	1 (100%)	71 (99%)	62 (87%)
Lakshadweep	9	9 (100%)	0 (0%)	NA	NA	NA	9 (100%)	9 (100%)
Madhya Pradesh	25251	22305 (88%)	322 (1%)	224 (70%)	126 (56%)	75 (60%)	25125 (100%)	11097 (44%)
Maharashtra	14051	13114 (93%)	363 (3%)	296 (82%)	108 (36%)	99 (92%)	13943 (99%)	8312 (60%)
Manipur	426	388 (91%)	5 (1%)	0 (0%)	NA	NA	426 (100%)	163 (38%)
Meghalaya	2135	2009 (94%)	33 (2%)	25 (76%)	11 (44%)	11 (100%)	2124 (99%)	1335 (63%)
Mizoram	864	826 (96%)	4 (0%)	4 (100%)	2 (50%)	2 (100%)	862 (100%)	235 (27%)
Nagaland	546	388 (71%)	11 (3%)	7 (64%)	2 (29%)	2 (100%)	544 (100%)	335 (62%)
Odisha	8431	7910 (94%)	114 (1%)	87 (76%)	76 (87%)	69 (91%)	8355 (99%)	4660 (56%)
Puducherry	91	91 (100%)	13 (14%)	13 (100%)	0 (0%)	NA	91 (100%)	83 (91%)
Punjab	7835	7148 (91%)	107 (1%)	85 (79%)	36 (42%)	15 (42%)	7799 (100%)	4949 (63%)
Rajasthan	24054	22608 (94%)	315 (1%)	182 (58%)	72 (40%)	37 (51%)	23982 (100%)	12402 (52%)
Sikkim	98	66 (67%)	3 (5%)	2 (67%)	2 (100%)	2 (100%)	96 (98%)	59 (61%)
Tamil Nadu	5408	5166 (96%)	229 (4%)	213 (93%)	52 (24%)	47 (90%)	5356 (99%)	3485 (65%)
Telangana	4844	4571 (94%)	317 (7%)	280 (88%)	28 (10%)	6 (21%)	4816 (99%)	3159 (66%)
Tripura	347	326 (94%)	52 (16%)	49 (94%)	2 (4%)	0 (0%)	345 (99%)	165 (48%)
Uttar Pradesh	74997	70454 (94%)	436 (1%)	170 (39%)	125 (74%)	100 (80%)	74872 (100%)	47232 (63%)
Uttarakhand	4642	4163 (90%)	33 (1%)	12 (36%)	4 (33%)	5 (125%)	4638 (100%)	1668 (36%)
West Bengal	20001	19025 (95%)	231 (1%)	152 (66%)	30 (20%)	15 (50%)	19971 (100%)	12575 (63%)
India	**292945**	**269905 (92%)**	**4374 (2%)**	**3093 (71%)**	**1255 (41%)**	**903 (72%)**	**291690 (100%)**	**168665 (58%)**

7.3 TB PREVENTIVE TREATMENT (TPT) IN ELIGIBLE CHILDREN >/=5 YEARS, ADOLESCENT AND ADULT HOUSEHOLD CONTACT (HHC) OF PULMONARY BACTERIOLOGICALLY CONFIRMED TB (PBCT) [2022 NI-KSHAY]

State/UTs	No. of HHC ≥5years of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB, TBI testing and TPT initiation				
		No. of HHC ≥5years of PBCT screened for TB (%)	No. of HHC ≥5years of PBCT symptomatic for TB (%)	No. of HHC ≥5years of PBCT evaluated for TB (%)	No. of HHC ≥5years of PBCT diagnosed with TB (%)	No. of HHC ≥5years of PBCT put on TB treatment (%)	No. of HHC ≥5years of PBCT and TB not diagnosed (B-F)	No. of HHC ≥5years of PBCT tested for TB infection	No. of HHC ≥5years of PBCT positives for TB infection	No. of HHC ≥5 years of PBCT eligible for TPT (TBI positives + testing not done among TB not diagnosed {J+[H-I]})	No. of HHC ≥5years of PBCT initiated TPT (%)
Andaman and Nicobar Islands	1297	1272 (98%)	14 (1%)	10 (71%)	10 (100%)	10 (100%)	1287 (99%)	0 (0%)	NA	1287 (99%)	39 (3%)
Andhra Pradesh	90117	86688 (96%)	451 (1%)	302 (67%)	138 (46%)	86 (62%)	89979 (100%)	0 (0%)	NA	89979 (100%)	17498 (19%)
Arunachal Pradesh	3241	2858 (88%)	139 (5%)	131 (94%)	129 (98%)	127 (98%)	3112 (96%)	3 (0.1%)	3 (100%)	3112 (96%)	23 (1%)
Assam	55969	47149 (84%)	884 (2%)	584 (66%)	269 (46%)	93 (35%)	55700 (100%)	2 (0%)	1 (50%)	55699 (100%)	10450 (19%)
Bihar	113634	99405 (87%)	1143 (1%)	648 (57%)	545 (84%)	407 (75%)	113089 (100%)	7 (0%)	0 (0%)	113082 (100%)	18963 (17%)
Chandigarh	5058	4828 (95%)	73 (2%)	59 (81%)	15 (25%)	14 (93%)	5043 (100%)	0 (0%)	NA	5043 (100%)	3398 (67%)
Chhattisgarh	56505	52307 (93%)	1496 (3%)	1142 (76%)	662 (58%)	410 (62%)	55843 (99%)	1 (0%)	0 (0%)	55842 (99%)	24405 (44%)
Dadra and Nagar Haveli and Daman and Diu	1071	1071 (100%)	38 (4%)	38 (100%)	2 (5%)	1 (50%)	1069 (100%)	982 (91.9%)	326 (33.2%)	413 (39%)	172 (42%)
Delhi	65439	57911 (88%)	1512 (3%)	1366 (90%)	334 (24%)	299 (90%)	65105 (99%)	3293 (5.1%)	1347 (40.9%)	63159 (97%)	28793 (46%)
Goa	2639	2590 (98%)	19 (1%)	19 (100%)	2 (11%)	2 (100%)	2637 (100%)	0 (0%)	NA	2637 (100%)	2 (0%)
Gujarat	158157	155155 (98%)	4609 (3%)	3898 (85%)	440 (11%)	310 (70%)	157717 (100%)	251 (0.2%)	123 (49%)	157589 (100%)	52714 (33%)
Haryana	133302	127681 (96%)	527 (0%)	277 (53%)	185 (67%)	153 (83%)	133117 (100%)	13031 (9.8%)	5275 (40.5%)	125361 (94%)	5282 (4%)
Himachal Pradesh	30360	30086 (99%)	339 (1%)	300 (88%)	72 (24%)	69 (96%)	30288 (100%)	8806 (29.1%)	2069 (23.5%)	23551 (78%)	2768 (12%)
Jammu and Kashmir	19392	18218 (94%)	387 (2%)	328 (85%)	169 (52%)	169 (100%)	19223 (99%)	4254 (22.1%)	595 (14%)	15564 (80%)	6040 (39%)
Jharkhand	79845	70827 (89%)	1745 (2%)	1231 (71%)	1019 (83%)	851 (84%)	78826 (99%)	0 (0%)	NA	78826 (99%)	41186 (52%)
Karnataka	134486	128972 (96%)	2178 (2%)	1798 (83%)	312 (17%)	235 (75%)	134174 (100%)	2983 (2.2%)	1509 (50.6%)	132700 (99%)	13071 (10%)
Kerala	30711	27371 (89%)	2949 (11%)	1928 (65%)	104 (5%)	104 (100%)	30607 (100%)	12637 (41.3%)	2883 (22.8%)	20853 (68%)	2558 (12%)

Note: Data source of TPT care cascade is contact tracing aggregate report while TBI testing (column I) and Positives (column J) is from Ni-kshay TPT dashboard; Data of Madhya Pradesh, Jharkhand, Haryana, Goa, Kerala, Meghalaya, Jammu-Kashmir, DNH-DD, Delhi and West Bengal updated after state level validation

State/UTs	No. of HHC ≥5years of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB, TBI testing and TPT initiation				
		No. of HHC ≥5years of PBCT screened for TB (%)	No. of HHC ≥5years of PBCT symptomatic for TB (%)	No. of HHC ≥5years of PBCT evaluated for TB (%)	No. of HHC ≥5years of PBCT diagnosed with TB (%)	No. of HHC ≥5years of PBCT put on TB treatment (%)	No. of HHC ≥5years of PBCT and TB not diagnosed (B-F)	No. of HHC ≥5years of PBCT tested for TB infection	No. of HHC ≥5years of PBCT positives for TB infection	No. of HHC ≥5 years of PBCT eligible for TPT (TBI positives + testing not done among TB not diagnosed {J+[H-I]})	No. of HHC ≥5years of PBCT initiated TPT (%)
Ladakh	648	610 (94%)	17 (3%)	14 (82%)	2 (14%)	2 (100%)	646 (100%)	2 (0.3%)	2 (100%)	646 (100%)	151 (23%)
Lakshadweep	34	31 (91%)	0 (0%)	NA	NA	NA	34 (100%)	1 (2.9%)	0 (0%)	33 (97%)	33 (100%)
Madhya Pradesh	196521	179064 (91%)	3488 (2%)	2596 (74%)	1294 (50%)	963 (74%)	195227 (99%)	33645 (17.2%)	10988 (32.7%)	172570 (88%)	62824 (36%)
Maharashtra	216585	203140 (94%)	5305 (3%)	4241 (80%)	740 (17%)	621 (84%)	215845 (100%)	7834 (3.6%)	3745 (47.8%)	211756 (98%)	40280 (19%)
Manipur	4246	3494 (82%)	32 (1%)	25 (78%)	14 (56%)	13 (93%)	4232 (100%)	0 (0%)	NA	4232 (100%)	16 (0%)
Meghalaya	13818	13219 (96%)	277 (2%)	234 (84%)	72 (31%)	69 (96%)	13746 (99%)	0 (0%)	NA	13746 (99%)	3785 (28%)
Mizoram	2972	2759 (93%)	15 (1%)	11 (73%)	9 (82%)	9 (100%)	2963 (100%)	12 (0.4%)	12 (100%)	2963 (100%)	990 (33%)
Nagaland	5783	4818 (83%)	39 (1%)	38 (97%)	24 (63%)	23 (96%)	5759 (100%)	1 (0%)	1 (100%)	5759 (100%)	1935 (34%)
Odisha	94585	91276 (97%)	1264 (1%)	940 (74%)	654 (70%)	633 (97%)	93931 (99%)	29 (0%)	0 (0%)	93902 (99%)	27026 (29%)
Puducherry	2184	2184 (100%)	349 (16%)	341 (98%)	3 (1%)	3 (100%)	2181 (100%)	9 (0.4%)	1 (11.1%)	2173 (99%)	701 (32%)
Punjab	91238	84153 (92%)	949 (1%)	737 (78%)	317 (43%)	284 (90%)	90921 (100%)	112 (0.1%)	5 (4.5%)	90814 (100%)	34645 (38%)
Rajasthan	226322	217136 (96%)	4252 (2%)	3287 (77%)	848 (26%)	398 (47%)	225474 (100%)	6 (0%)	1 (16.7%)	225469 (100%)	86285 (38%)
Sikkim	1752	1415 (81%)	19 (1%)	13 (68%)	5 (38%)	5 (100%)	1747 (100%)	139 (8%)	115 (82.7%)	1723 (98%)	134 (8%)
Tamil Nadu	125641	121690 (97%)	1746 (1%)	1461 (84%)	157 (11%)	129 (82%)	125484 (100%)	3512 (2.8%)	1027 (29.2%)	122999 (98%)	9169 (7%)
Telangana	87807	85301 (97%)	4586 (5%)	4116 (90%)	576 (14%)	364 (63%)	87231 (99%)	146 (0.2%)	89 (61%)	87174 (99%)	22048 (25%)
Tripura	5998	5652 (94%)	258 (5%)	241 (93%)	31 (13%)	11 (35%)	5967 (99%)	18 (0.3%)	18 (100%)	5967 (99%)	381 (6%)
Uttar Pradesh	770736	743179 (96%)	5727 (1%)	3439 (60%)	2590 (75%)	1894 (73%)	768146 (100%)	841 (0.1%)	575 (68.4%)	767880 (100%)	47592 (6%)
Uttarakhand	40512	37308 (92%)	451 (1%)	321 (71%)	213 (66%)	207 (97%)	40299 (99%)	5 (0%)	5 (100%)	40299 (99%)	4653 (12%)
West Bengal	183272	176028 (96%)	5727 (3%)	4821 (84%)	568 (12%)	417 (73%)	182704 (100%)	47 (0%)	2 (4.3%)	182659 (100%)	91189 (50%)
India	**3063327**	**2891117 (94%)**	**50747 (2%)**	**39141 (77%)**	**12920 (33%)**	**9498 (74%)**	**3050407 (100%)**	**37265 (1.2%)**	**14150 (38%)**	**3027292 (99%)**	**643646 (21%)**

7.4 TB PREVENTIVE TREATMENT (TPT) IN ALL ELIGIBLE HOUSEHOLD CONTACT (HHC) OF PBCT [2022 NI-KSHAY]

State/UTs	No. of HHC of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB, TBI testing and TPT initiation			
		No. of HHC of PBCT screened for TB (%)	No. of HHC of PBCT symptomatic for TB (%)	No. of HHC of PBCT evaluated for TB (%)	No. of HHC of PBCT diagnosed with TB (%)	No. of HHC of PBCT put on TB treatment (%)	No. of HHC ≥5 years of PBCT tested for TB infection	No. of HHC ≥5 years of PBCT positives for TB infection	No. of HHC of PBCT eligible* for TPT	No. of HHC of PBCT provided TPT (%)
Andaman and Nicobar Islands	1386	1361 (100%)	15 (1%)	11 (100%)	11 (100%)	11 (100%)	0 (0%)	NA	1375 (99%)	97 (7%)
Andhra Pradesh	94303	90684 (95%)	482 (1%)	324 (71%)	147 (41%)	88 (22%)	0 (0%)	NA	94156 (100%)	19124 (20%)
Arunachal Pradesh	3999	3548 (91%)	203 (9%)	191 (94%)	189 (100%)	187 (100%)	3 (0.1%)	3 (100%)	3810 (95%)	104 (3%)
Assam	61414	51640 (82%)	962 (2%)	628 (56%)	286 (39%)	97 (24%)	2 (0%)	1 (50%)	61127 (100%)	12893 (21%)
Bihar	132398	116060 (89%)	1351 (1%)	744 (46%)	619 (77%)	464 (77%)	7 (0%)	0 (0%)	131772 (100%)	25161 (19%)
Chandigarh	5514	5258 (94%)	74 (0%)	60 (100%)	15 (0%)	NA	0 (0%)	NA	5499 (100%)	3768 (69%)
Chhattisgarh	63424	58587 (91%)	1612 (2%)	1213 (61%)	715 (75%)	441 (58%)	1 (0%)	0 (0%)	62708 (99%)	28814 (46%)
Dadra and Nagar Haveli and Daman and Diu	1134	1134 (100%)	38 (0%)	NA	NA	NA	982 (91.9%)	326 (33.2%)	476 (42%)	235 (49%)
Delhi	72577	63728 (81%)	1711 (3%)	1477 (56%)	402 (61%)	346 (69%)	3293 (5.1%)	1347 (40.9%)	70229 (97%)	32598 (46%)
Goa	2769	2719 (99%)	25 (5%)	25 (100%)	2 (0%)	NA	0 (0%)	NA	2767 (100%)	97 (4%)
Gujarat	173593	169936 (96%)	5032 (3%)	4255 (84%)	483 (12%)	344 (79%)	251 (0.2%)	123 (49%)	172982 (100%)	62426 (36%)
Haryana	145130	139270 (98%)	574 (0%)	295 (38%)	194 (50%)	158 (56%)	13031 (9.8%)	5275 (40.5%)	137180 (95%)	15790 (12%)
Himachal Pradesh	32608	32313 (99%)	371 (1%)	332 (100%)	84 (38%)	81 (100%)	8806 (29.1%)	2069 (23.5%)	25787 (79%)	4938 (19%)
Jammu and Kashmir	21374	20020 (91%)	413 (1%)	351 (88%)	178 (39%)	177 (89%)	4254 (22.1%)	595 (14%)	17537 (82%)	7378 (42%)
Jharkhand	92109	81030 (83%)	1898 (1%)	1315 (55%)	1090 (85%)	877 (37%)	0 (0%)	NA	91019 (99%)	48195 (53%)
Karnataka	143237	137292 (95%)	2484 (4%)	2086 (94%)	429 (41%)	341 (91%)	2983 (2.2%)	1509 (50.6%)	141334 (99%)	19264 (14%)
Kerala	32997	29470 (92%)	3167 (10%)	2132 (94%)	127 (11%)	127 (100%)	12637 (41.3%)	2883 (22.8%)	23116 (70%)	4157 (18%)
Ladakh	720	680 (97%)	18 (1%)	15 (100%)	3 (100%)	3 (100%)	2 (0.3%)	2 (100%)	717 (100%)	213 (30%)

** total eligible for TPT = children <5years HHC not diagnosed TB plus HHC >5years positives for IGRA and TBI testing not done*

State/UTs	No. of HHC of PBCT	Screening, diagnosis and treatment of TB					Ruling out active TB, TBI testing and TPT initiation			
		No. of HHC of PBCT screened for TB (%)	No. of HHC of PBCT symptomatic for TB (%)	No. of HHC of PBCT evaluated for TB (%)	No. of HHC of PBCT diagnosed with TB (%)	No. of HHC of PBCT put on TB treatment (%)	No. of HHC ≥5 years of PBCT tested for TB infection	No. of HHC ≥5 years of PBCT positives for TB infection	No. of HHC of PBCT eligible* for TPT	No. of HHC of PBCT provided TPT (%)
Lakshadweep	43	40 (100%)	0 (0%)	NA	NA	NA	1 (2.9%)	0 (0%)	42 (98%)	42 (100%)
Madhya Pradesh	221772	201369 (88%)	3810 (1%)	2820 (70%)	1420 (56%)	1038 (60%)	33645 (17.2%)	10988 (32.7%)	197695 (89%)	73921 (37%)
Maharashtra	230636	216254 (93%)	5668 (3%)	4537 (82%)	848 (36%)	720 (92%)	7834 (3.6%)	3745 (47.8%)	225699 (98%)	48592 (22%)
Manipur	4672	3882 (91%)	37 (1%)	25 (0%)	NA	NA	0 (0%)	NA	4658 (100%)	179 (4%)
Meghalaya	15953	15228 (94%)	310 (2%)	259 (76%)	83 (44%)	80 (100%)	0 (0%)	NA	15870 (99%)	5120 (32%)
Mizoram	3836	3585 (96%)	19 (0%)	15 (100%)	11 (50%)	11 (100%)	12 (0.4%)	12 (100%)	3825 (100%)	1225 (32%)
Nagaland	6329	5206 (71%)	50 (3%)	45 (64%)	26 (29%)	25 (100%)	1 (0%)	1 (100%)	6303 (100%)	2270 (36%)
Odisha	103016	99186 (94%)	1378 (1%)	1027 (76%)	730 (87%)	702 (91%)	29 (0%)	0 (0%)	102257 (99%)	31686 (31%)
Puducherry	2275	2275 (100%)	362 (14%)	354 (100%)	3 (0%)	NA	9 (0.4%)	1 (11.1%)	2264 (100%)	784 (35%)
Punjab	99073	91301 (91%)	1056 (1%)	822 (79%)	353 (42%)	299 (42%)	112 (0.1%)	5 (4.5%)	98613 (100%)	39594 (40%)
Rajasthan	250376	239744 (94%)	4567 (1%)	3469 (58%)	920 (40%)	435 (51%)	6 (0%)	1 (16.7%)	249451 (100%)	98687 (40%)
Sikkim	1850	1481 (67%)	22 (5%)	15 (67%)	7 (100%)	7 (100%)	139 (8%)	115 (82.7%)	1819 (98%)	193 (11%)
Tamil Nadu	131049	126856 (96%)	1975 (4%)	1674 (93%)	209 (24%)	176 (90%)	3512 (2.8%)	1027 (29.2%)	128355 (98%)	12654 (10%)
Telangana	92651	89872 (94%)	4903 (7%)	4396 (88%)	604 (10%)	370 (21%)	146 (0.2%)	89 (61%)	91990 (99%)	25207 (27%)
Tripura	6345	5978 (94%)	310 (16%)	290 (94%)	33 (4%)	11 (0%)	18 (0.3%)	18 (100%)	6312 (99%)	546 (9%)
Uttar Pradesh	845733	813633 (94%)	6163 (1%)	3609 (39%)	2715 (74%)	1994 (80%)	841 (0.1%)	575 (68.4%)	842752 (100%)	94824 (11%)
Uttarakhand	45154	41471 (90%)	484 (1%)	333 (36%)	217 (33%)	212 (125%)	5 (0%)	5 (100%)	44937 (100%)	6321 (14%)
West Bengal	203273	195053 (95%)	5958 (1%)	4973 (66%)	598 (20%)	432 (50%)	47 (0%)	2 (4.3%)	202630 (100%)	103764 (51%)
India	**3356272**	**3161022 (92%)**	**55121 (2%)**	**42234 (71%)**	**14175 (41%)**	**10401 (72%)**	**37265 (1.2%)**	**14150 (38%)**	**3318982 (99%)**	**812311 (24%)**

8.1 STATE LEVEL - PROGRAM STAFFING STATUS IN 2022

State/UT	State/UT Level - Programme Staffing Status in 2022 (in place/sanctioned)													
	State/ UT TB Officer	Epide-miol-ogist (APO)	MO – State/UT TB Cell	TB-HIV Coordi-nator	PPM Coor-dinator	DR TB Co-ordinator	State/ UT IEC Officer	State/UT Accountant	Techni-cal Offi-cer-Proc. and Logis-tics	Data Ana-lyst	DEO-STC	Pharma-cist - SDS	Secre-tarial asst.	Store Assis-tant - SDS
Andaman & Nicobar	1/1	0/0	0/1	0/1	0/0	0/0	1/1	1/1	0/0	0/1	1/1	1/1	1/1	1/1
Andhra Pradesh	1/1	1/1	0/1	0/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1	1/1
Arunachal Pradesh	1/1	1/1	0/1	0/0	0/0	0/0	1/1	1/1	0/1	0/0	1/1	0/1	1/1	1/1
Assam	1/1	0/0	0/1	0/1	0/0	0/0	1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1
Bihar	1/1	1/1	1/1	0/1	0/1	1/1	1/1	0/1	0/1	0/0	1/1	0/2	0/1	1/2
Chandigarh	1/1	0/0	0/1	0/1	0/1	0/0	1/1	1/1	0/0	0/0	1/1	1/1	1/1	1/1
Chattisgarh	1/1	1/1	1/1	0/0	1/1	0/0	1/1	1/1	0/1	0/0	1/1	0/1	0/1	1/1
Dadra Nagar & Haveli and Daman & Diu	1/1	0/2	1/1	0/0	0/0	0/0	1/1	2/2	0/0	0/0	2/2	2/2	1/1	0/1
Delhi	1/1	1/1	1/1	1/1	0/1	1/1	1/1	1/1	0/1	1/1	1/1	0/2	1/1	0/2
Goa	1/1	1/1	1/1	1/1	0/0	0/0	1/1	1/1	1/1	0/0	1/1	1/1	1/1	1/1
Gujarat	1/1	0/1	1/1	1/1	0/1	1/1	1/1	1/1	0/1	0/0	1/1	1/1	1/1	1/1
Haryana	1/1	0/1	1/1	0/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Himachal Pradesh	1/1	1/1	1/1	0/0	0/0	0/0	1/1	1/1	0/1	0/0	1/1	1/1	1/1	1/1
Jammu	1/0	0/1	0/1	1/1	1/1	0/1	1/1	1/1	0/1	0/0	1/1	1/1	1/1	1/1
Kashmir	1/0	1/1	1/1	1/1	1/1	0/0	1/1	1/1	1/1	0/0	1/1	1/1	1/1	1/1
Ladakh	1/0	0/0	0/0	0/0	0/0	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0
Jharkhand	1/1	1/1	0/1	0/1	1/1	0/1	1/1	1/2	1/1	0/1	1/1	1/2	0/1	1/2
Karnataka	1/1	0/1	0/1	0/1	0/1	0/1	0/1	2/2	1/1	0/1	2/2	1/1	1/1	2/2

State/UT	State/UT Level - Programme Staffing Status in 2022 (in place/sanctioned)													
	State/ UT TB Officer	Epide-miol-ogist (APO)	MO – State/UT TB Cell	TB-HIV Coordi-nator	PPM Coor-dinator	DR TB Co-ordinator	State/ UT IEC Officer	State/UT Accountant	Techni-cal Offi-cer-Proc. and Logis-tics	Data Ana-lyst	DEO-STC	Pharma-cist - SDS	Secre-tarial asst.	Store Assis-tant - SDS
Kerala	1/1	1/1	1/1	1/1	0/1	1/1	1/1	1/2	0/0	0/0	1/1	1/1	1/1	1/1
Lakshadweep	1/1	0/0	0/0	0/0	0/0	0/0	1/1	0/0	0/0	0/0	1/1	0/0	0/0	0/0
Maharashtra	1/1	2/2	0/1	0/1	1/1	0/1	1/1	3/3	0/1	2/2	2/2	4/5	2/2	8/8
Manipur	1/1	0/1	1/1	0/1	1/1	0/1	1/1	1/1	0/0	0/0	1/1	1/1	1/1	1/1
Mizoram	1/1	0/0	1/1	1/1	1/1	0/0	1/1	1/1	0/0	0/0	1/1	1/1	1/1	1/1
Meghalaya	1/1	1/1	1/1	0/1	1/1	0/1	0/1	1/1	1/1	1/1	1/1	1/1	0/1	0/1
Madhya Pradesh	1/1	0/1	0/1	0/1	1/1	0/1	0/0	1/1	0/0	0/0	1/1	1/1	1/1	1/1
Nagaland	1/1	1/1	1/1	0/0	1/1	0/0	1/1	1/1	1/1	0/0	1/1	1/1	1/1	1/1
Odisha	1/1	1/1	1/1	1/1	1/1	1/1	0/1	1/1	0/0	0/0	1/1	0/1	0/1	0/1
Puducherry	1/1	0/0	1/1	1/1	0/0	0/0	1/1	1/1	0/0	0/0	1/1	1/1	1/1	1/1
Punjab	1/1	0/1	0/1	1/1	0/0	0/0	0/0	1/1	0/0	0/0	1/1	0/0	0/0	0/0
Rajasthan	1/1	0/1	0/1	0/1	1/1	0/1	1/1	1/1	1/1	1/1	1/2	2/3	1/1	0/4
Sikkim	1/1	1/1	0/1	0/1	1/1	0/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1
Telangana	1/1	0/0	1/1	1/1	1/1	0/1	1/1	1/2	1/1	0/1	1/2	2/4	0/1	2/3
Tamil Nadu	1/1	0/0	1/1	1/1	1/1	0/1	1/1	1/2	1/1	0/1	1/2	2/4	0/1	2/3
Tripura	1/1	1/1	1/1	0/0	0/1	0/0	1/1	1/1	0/1	1/1	0/1	1/1	1/1	0/1
Uttar Pradesh	1/1	1/2	0/2	1/2	1/2	0/2	2/2	2/2	2/2	1/2	2/2	3/4	1/1	6/8
Uttarakhand	1/1	1/1	1 (PMC) /1	0/0	0/0	0/1	1/1	1/1	0/0	0/0	1/1	2/2	0/1	2/2
West Bengal	1/1	1/2	0/1	0/2	2/2	0/2	1/2	2/2	0/1	2/2	1/2	1/2	1/1	2/4

8.2 STDC - PROGRAM STAFFING STATUS IN 2022

State/UT	Director (STDC)		MO - STDC		Epidemiologist		NIKSHAY Operator		Secretarial assistant-STDC	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Andaman & Nicobar	0	0	0	0	0	0	0	0	0	0
Andhra Pradesh	0	0	0	0	0	0	1	1	0	0
Arunachal Pradesh	0	0	0	0	0	0	0	0	0	0
Assam	0	0	0	0	0	0	0	0	0	0
Bihar	2	2	14	8	1	0	0	0	0	0
Chandigarh	0	0	0	0	0	0	0	0	0	0
Chattisgarh	0	0	2	0	1	0	1	0	0	0
Dadra Nagar & Haveli Daman & Diu	0	0	0	0	0	0	0	0	0	0
Delhi	1	1	1	1	1	1	0	0	0	0
Goa	0	0	0	0	0	0	0	0	0	0
Gujarat	2	2	6	6	1	0	1	1	0	0
Haryana	0	0	1	0	1	0	1	0	1	0
Himachal Pradesh	1	1	1	1	1	1	1	1	1	1
Jammu	0	0	0	0	0	0	0	0	0	0
Kashmir	1	1	4	4	0	0	0	0	0	0
Ladakh	0	0	0	0	0	0	0	0	0	0
Jharkhand	1	1	1	1	1	0	1	0	0	0
Karnataka	1	1	0	0	0	0	2	2	0	0
Kerala	1	1	2	2	0	0	0	0	0	0
Lakshdweep	0	0	0	0	0	0	0	0	0	
Maharashtra	3	3	2	2	0	0	0	0	0	0
Manipur	1	0	0	0	0	0	1	0	0	0
Mizoram	0	0	0	0	0	0	0	0	0	0
Meghalaya	0	0	0	0	0	0	0	0	0	0

State/UT	Director (STDC)		MO - STDC		Epidemiologist		NIKSHAY Operator		Secretarial assistant-STDC	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Madhya Pradesh	1	1	4	3	0	0	1	1	0	0
Nagaland	0	0	0	0	0	0	0	0	0	0
Odisha	1	1	3	2	1	0	1	0	1	0
Puducherry	1	1	0	0	0	0	0	0	0	0
Punjab	1	1	1	1	1	1	0	0	0	0
Rajasthan	1	1	5	5	1	0	1	1	1	0
Sikkim	1	1	1	0	1	0	1	0	1	0
Telangana	1	1	0	0	1	1	1	1	0	0
Tamil Nadu	1	1	0	0	1	1	0	0	0	0
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	1	1	5	1	0	0	2	0	0	0
Uttarakhand	0	0	1	0	0	0	0	0	0	0
West Bengal	1	1	3	2	1	1	1	1	0	0

8.3 IRL - PROGRAM STAFFING STATUS IN 2022

State/UT	Microbiologist(IRL)		Microbiologist (EQA)		Senior Lab. Tech.		Technical Officer		Lab Technicians		Data Entry Operator		Lab Attendant	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Andaman & Nicobar	1	1	1	1	1	1	0	0	1	1	1	1	0	0
Andhra Pradesh	1	1	0	0	1	0	0	0	0	0	0	0	0	0
Arunachal Pradesh	1	1	0	0	1	1	0	0	1	1	1	1	0	0
Assam	1	1	1	1	4	4	0	0	5	4	1	1	2	2
Bihar	1	1	1	0	6	5	0	0	0	0	1	1	0	0
Chandigarh	1	1	0	0	0	0	0	0	3	3	1	1	2	2
Chattisgarh	1	1	1	1	8	7	0	0	0	0	1	1	1	1
Dadra Nagar & Haveli Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delhi	4	4	2	2	12	1	1	0	0	0	2	1	0	0
Goa	1	1	1	1	2	2	0	0	0	0	1	1	0	0
Gujarat	1	1	0	0	1	1	0	0	14	9	2	2	7	3
Haryana	1	1	1	1	5	1	0	0	1	1	1	1	2	0
Himachal Pradesh	1	1	1	1	3	3	1	1	5	3	1	1	1	1
Jammu	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Kashmir	1	1	0	0	1	1	0	0	2	2	1	1	1	1
Ladakh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jharkhand	1	1	1	1	5	1	1	0	2	2	1	1	1	0

State/UT	Microbiologist(IRL)		Microbiologist (EQA)		Senior Lab. Tech.		Technical Officer		Lab Technicians		Data Entry Operator		Lab Attendant	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Karnataka	2	2	2	1	20	14	0	0	6	0	5	5	5	5
Kerala	1	1	1	1	1	1	2	2	10	10	2	2	3	3
Lakshdweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maharashtra	4	1	4	2	22	16	6	4	8	4	4	4	7	3
Manipur	1	1	1	1	1	1	0	0	4	0	1	1	2	2
Mizoram	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meghalaya	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Madhya Pradesh	1	1	1	1	1	1	1	1	5	5	1	1	1	1
Nagaland	NA	NA	NA	NA	NA	NA	0	0	NA	NA	NA	NA	NA	NA
Odisha	2	1	1	1	1	1	1	0	6	4	2	2	4	3
Puducherry	1	1	1	1	1	1	1	0	5	4	1	1	1	1
Punjab	1	0	1	1	0	0	0	0	0	0	0	0	0	0
Rajasthan	1	1	1	1	1	1	0	0	19	8	3	2	8	4
Sikkim	1	1	1	0	1	1	1	1	7	7	1	1	1	1
Telangana	1	1	1	0	1	1	1	0	4	4	1	1	1	1
Tamil Nadu	2	2	2	2	1	1	0	0	9	9	3	1	8	4
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	8	6	5	1	29	4	0	0	5	4	6	5	6	4
Uttarakhand	1	1	1	1	1	1	0	0	7	7	1	1	3	3
West Bengal	1	0	2	1	6	3	0	0	1	1	1	1	0	0

8.4 CDST - PROGRAM STAFFING STATUS IN 2022

State/UT	Microbiologist (C-DST)		Technical Officer		Senior Lab. Tech.		Data Entry Operator		Lab technicians		Lab Attendant	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Andaman & Nicobar	0	0	0	0	0	0	0	0	0	0	0	0
Andhra Pradesh	2	2	0	0	10	4	2	2	6	3	2	2
Arunachal Pradesh	1	1	0	0	1	1	0	0	0	0	4	4
Assam	1	1	0	0	2	2	0	0	0	0	0	0
Bihar	4	4	0	0	15	11	4	0	0	0	0	0
Chandigarh	0	0	0	0	0	0	0	0	0	0	0	0
Chattisgarh	2	1	0	0	4	0	1	0	0	0	0	0
Dadra Nagar & Haveli Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0
Delhi	1	1	0	0	5	0	1	0	0	0	0	0
Goa	0	0	0	0	0	0	0	0	0	0	0	0
Gujarat	2	2	0	0	0	0	2	1	18	17	8	8
Haryana	1	0	0	0	5	5	0	0	0	0	1	1
Himachal Pradesh	2	2	0	0	5	4	0	0	4	3	0	0
Jammu	0	0	0	0	0	0	0	0	0	0	1	1
Kashmir	0	0	0	0	0	0	0	0	0	0	0	0
Ladakh	0	0	0	0	0	0		0	0	0	0	0
Jharkhand	2	1	0	0	10	0	2	0	4	0	2	0
Karnataka	3	3	0	0	0	0	2	2	1	0	4	4

State/UT	Microbiologist (C-DST)		Technical Officer		Senior Lab. Tech.		Data Entry Operator		Lab technicians		Lab Attendant	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Kerala	1	1	0	0	0	0	1	1	2	2	2	2
Lakshdweep	0	0	0	0	0	0	0	0	0	0	0	0
Maharashtra	11	6	0	0	30	22	6	8	8	2	0	0
Manipur	0	0	0	0	0	0	0	0	0	0	0	0
Mizoram	1	1	0	0	2	2	1	1	2	2	0	0
Meghalaya	0	0	0	0	0	0	0	0	0	0	0	0
Madhya Pradesh	4	3	1	1	0	0	4	4	20	15	4	4
Nagaland	1	1	NA	NA	1	1	NA	NA	2	2	NA	NA
Odisha	1	1	0	0	1	0	0	0	2	0	2	0
Puducherry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	0	0	0	0	0	0	0	0	0	0	0	0
Rajasthan	4	4	0	0	7	3	3	2	19	16	8	5
Sikkim	1	1	0	0	0	0	0	0	0	0	0	0
Telangana	1	0	0	0	0	0	1	1	2	1	1	0
Tamil Nadu	3	3	0	0	27	20	5	3	5	5	2	0
Tripura	1	1	0	0	1	1	1	1	4	3	1	1
Uttar Pradesh	8	3	0	0	24	1	6	4	4	2	6	5
Uttarakhand	0	0	0	0	0	0	0	0	0	0	0	0
West Bengal	5	1	0	0	15	3	0	0	4	4	0	0

8.5 DRTB CENTRE - PROGRAM STAFFING STATUS IN 2022

State/UT	Senior MO – DR TB Centre		Counselor – DR TB Centre		SA – DR TB Centre	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Andaman & Nicobar	1	0	1	1	1	1
Andhra Pradesh	13	4	13	11	13	10
Arunachal Pradesh	2	1	0	0	2	2
Assam	5	2	5	2	5	3
Bihar	9	2	44	15	9	6
Chandigarh	1	0	1	0	1	1
Chattisgarh	4	2	4	4	4	4
Dadra Nagar & Haveli Daman & Diu	0	0	0	0	0	0
Delhi	4	2	14	0	4	4
Goa	1	1	1	1	1	1
Gujarat	5	5	5	3	5	5
Haryana	2	1	3	3	3	2
Himachal Pradesh	4	4	4	3	2	2
Jammu	1	0	1	0	1	1
Kashmir	1	1	0	0	1	1
Ladakh	1	0	0	0	1	1
Jharkhand	5	1	5	3	5	4
Karnataka	7	6	6	5	6	6
Kerala	2	2	0	0	2	2
Lakshdweep	0	0	0	0	0	0
Maharashtra	19	15	20	15	22	20
Manipur	1	0	1	0	2	2
Mizoram	1	1	1	1	1	1

State/UT	Senior MO – DR TB Centre		Counselor – DR TB Centre		SA – DR TB Centre	
	Sanctioned	In Place	Sanctioned	In Place	Sanctioned	In Place
Meghalaya	2	2	2	2	2	2
Madhya Pradesh	9	2	9	3	9	1
Nagaland	2	2	2	2	2	2
Odisha	4	2	4	3	4	2
Puducherry	1	0	0	0	1	1
Punjab	3	1	0	0	2	1
Rajasthan	7	2	7	6	6	6
Sikkim	1	0	1	0	1	1
Telangana	1	1	4	1	7	4
Tamil Nadu	8	5	13	8	8	6
Tripura	1	0	1	1	1	1
Uttar Pradesh	23	17	23	17	23	18
Uttarakhand	2	1	2	2	2	2
West Bengal	9	5	9	8	9	8

8.6 DISTRICT LEVEL - PROGRAM STAFFING STATUS IN 2022

State/UT	District level - Programme Staffing Status in 2022 (in place/sanctioned)											
	District TB Officers	District Program Coordinator	MO – DTC	MO-TC	Senior DR TB – TBHIV-supervisor	District PPM Coordinator	Accountant	Senior Treatment Supervisor (STS)	Senior TB Lab Supervisor (STLS)	Lab. Techs. (LT) – NTEP/ Contractual	MO – PHI	TBHV
Andaman & Nicobar	3 / 3	3 / 3	2 / 3	9 / 9	3 / 3	0 / 0	3 / 3	9 / 9	4 / 5	4 / 8	127 / 153	4 / 6
Andhra Pradesh	20 / 26	12 / 13	2 / 5	225 / 225	11 / 13	12 / 13	12 / 13	212 / 239	102 / 134	146 / 209	1512 / 1600	133 / 161
Arunachal Pradesh	15 / 15	0 / 0	15 / 15	6 / 6	15 / 15	0 / 0	15 / 15	21 / 21	21 / 21	12 / 12	800 / 830	11 / 11
Assam	27 / 27	0 / 0	0 / 10	140 / 150	26 / 35	21 / 27	22 / 27	140 / 153	75 / 78	80 / 88	1816 / 4283	29 / 38
Bihar	38 / 38	20 / 38	25 / 38	480 / 544	22 / 38	0 / 0	0 / 0	424 / 534	145 / 223	198 / 436	852 / 2686	31 / 110
Chandigarh	1 / 1	0 / 0	0 / 1	4 / 4	1 / 1	0 / 1	0 / 0	4 / 4	5 / 5	14 / 14	44 / 44	10 / 16
Chattisgarh	33 / 33	25 / 28	7 / 13	155 / 155	25 / 27	24 / 27	25 / 27	150 / 155	62 / 69	105 / 145	2447 / 2573	40 / 50
Dadra Nagar & Haveli and Daman & Diu	0 / 0	0 / 1	0 / 1	0 / 0	2 / 2	0 / 0	1 / 1	6 / 8	3 / 3	3 / 5	0 / 0	3 / 3
Delhi	25 / 25	0 / 25	10 / 12	20 / 38	23 / 27	0 / 25	0 / 25	31 / 72	31 / 38	168 / 186	286 / 286	172 / 189
Goa	2 / 2	2 / 2	0 / 0	12 / 12	2 / 2	1 / 2	0 / 1	8 / 14	5 / 5	9 / 9	210 / 225	8 / 9
Gujarat	38 / 41	29 / 35	37 / 42	250 / 259	36 / 39	26 / 35	33 / 36	316 / 321	162 / 170	176 / 189	3194 / 3730	239 / 247
Haryana	22 / 22	19 / 21	0 / 0	0 / 0	20 / 21	20 / 21	20 / 21	116 / 119	48 / 52	103 / 257	0 / 0	89 / 99
Himachal Pradesh	12 / 12	8 / 10	1 / 5	76 / 76	11 / 12	0 / 0	14 / 14	76 / 98	49 / 53	106 / 142	542 / 578	10 / 18
Jammu	6 / 6	4 / 6	5 / 9	40 / 41	6 / 6	3 / 6	3 / 6	39 / 47	18 / 18	0 / 0	346 / 831	6 / 7
Kashmir	6 / 6	6 / 6	1 / 1	57 / 57	6 / 6	3 / 3	4 / 6	57 / 57	21 / 21	20 / 21	660 / 1103	17 / 18
Ladakh	2 / 2	2 / 2	2 / 2	0 / 0	2 / 2	0 / 0	2 / 2	5 / 5	5 / 5	2 / 2	34 / 34	1 / 1
Jharkhand	24 / 24	20 / 24	2 / 8	205 / 205	20 / 24	20 / 24	19 / 24	167 / 205	73 / 101	141 / 168	1297 / 1920	55 / 74

State/UT	District level - Programme Staffing Status in 2022 (in place/sanctioned)											
	District TB Officers	District Program Coordinator	MO – DTC	MO-TC	Senior DR TB – TBHIV-supervisor	District PPM Coordinator	Accountant	Senior Treatment Supervisor (STS)	Senior TB Lab Supervisor (STLS)	Lab. Techs. (LT) – NTEP/ Contractual	MO – PHI	TBHV
Karnataka	31 / 31	32 / 34	4 / 6	0 / 0	33 / 33	33 / 33	28 / 30	269 / 284	142 / 149	211 / 224	0 / 0	264 / 298
Kerala	13 / 14	0 / 0	17 / 17	60 / 66	14 / 14	4 / 6	14 / 14	67 / 91	62 / 74	93 / 98	0 / 0	81 / 85
Lakshdweep	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	1 / 1	0 / 3	0 / 0	0 / 0
Maharashtra	80 / 80	28 / 34	60 / 75	381 / 384	80 / 84	75 / 79	77 / 79	556 / 617	305 / 318	278 / 344	4363 / 5340	470 / 520
Manipur	10 / 16	0 / 0	0 / 1	6 / 13	9 / 9	8 / 9	8 / 9	19 / 27	16 / 19	19 / 23	0 / 0	8 / 8
Mizoram	8 / 8	0 / 0	0 / 1	1 / 1	8 / 8	6 / 8	8 / 8	12 / 12	9 / 9	7 / 7	0 / 0	4 / 4
Meghalaya	7 / 7	7 / 7	0 / 0	24 / 24	7 / 7	2 / 4	7 / 7	24 / 24	14 / 15	19 / 20	613 / 620	6 / 7
Madhya Pradesh	52 / 52	39 / 52	32 / 52	371 / 371	36 / 52	0 / 0	0 / 0	263 / 357	236 / 357	531 / 624	1700 / 1799	180 / 260
Nagaland	10 / 11	0 / 0	2 / 2	0 / 0	11 / 11	2 / 2	4 / 4	22 / 22	13 / 13	13 / 13	0 / 0	7 / 7
Odisha	31 / 31	27 / 31	4 / 9	305 / 308	30 / 31	28 / 31	29 / 31	302 / 322	75 / 109	70 / 156	917 / 1068	61 / 64
Puducherry	1 / 1	0 / 0	1 / 1	6 / 7	1 / 1	0 / 0	0 / 1	5 / 7	5 / 5	4 / 4	121 / 123	8 / 9
Punjab	23 / 23	0 / 0	3 / 3	134 / 134	20 / 22	0 / 0	0 / 0	105 / 134	46 / 59	87 / 149	3135 / 3169	62 / 102
Rajasthan	34 / 34	24 / 34	32 / 36	265 / 283	28 / 34	29 / 34	24 / 34	241 / 338	118 / 152	29 / 67	3859 / 4908	43 / 90
Sikkim	5 / 5	4 / 5	0 / 0	5 / 5	3 / 5	4 / 5	5 / 5	5 / 5	5 / 5	5 / 5	43 / 43	1 / 1
Telangana	8 / 11	8 / 33	0 / 1	135 / 171	11 / 11	16 / 33	3 / 11	158 / 171	86 / 96	150 / 164	750 / 891	92 / 92
Tamil Nadu	31 / 31	33 / 36	16 / 22	461 / 461	35 / 38	36 / 38	35 / 36	441 / 462	126 / 146	375 / 492	1860 / 2977	343 / 375
Tripura	8 / 8	0 / 0	1 / 2	18 / 18	6 / 8	0 / 0	6 / 8	19 / 20	10 / 13	9 / 9	0 / 0	3 / 3
Uttar Pradesh	75 / 75	66 / 75	7 / 10	1152 / 1168	79 / 89	76 / 89	67 / 76	1044 / 1197	362 / 584	932 / 1045	2693 / 4448	436 / 562
Uttarakhand	13 / 13	13 / 13	13 / 13	95 / 95	13 / 13	0 / 0	12 / 13	103 / 110	30 / 31	63 / 72	450 / 450	24 / 29
West Bengal	37 / 37	28 / 28	28 / 28	464 / 469	43 / 48	29 / 35	27 / 28	445 / 482	165 / 204	361 / 393	2829 / 3950	230 / 373

8.7 MEDICAL COLLEGE - PROGRAM STAFFING STATUS IN 2022

State/UT	TBHV-Medical College		LT – DMC (All sources)		MO – Medical College		LT – Medical College		Data Entry Opertaor	
	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place
Andaman & Nicobar	1	1	28	24	5	5	0	0	0	0
Andhra Pradesh	23	19	610	502	22	6	25	15	13	12
Arunachal Pradesh	0	0	39	39	0	0	1	0	15	15
Assam	6	6	769	647	6	2	6	6	28	24
Bihar	11	5	858	585	11	3	11	2	38	35
Chandigarh	2	2	17	17	2	2	2	2	0	0
Chattisgarh	9	7	794	794	9	5	9	6	27	26
Dadra Nagar & Haveli Daman & Diu	0	0	19	19	0	0	0	0	1	1
Delhi	14	8	215	189	14	7	14	6	26	25
Goa	1	1	24	24	1	1	1	1	2	1
Gujarat	29	29	2183	2142	17	16	26	25	38	36
Haryana	9	9	0	0	6	6	13	5	21	21
Himachal Pradesh	8	7	239	211	8	6	8	8	12	12
Jammu	2	2	151	146	2	2	2	2	6	5
Kashmir	3	3	79	79	3	3	3	3	6	6
Ladakh	0	0	2	2	0	0	0	0	2	2
Jharkhand	3	3	415	365	3	3	3	3	24	21
Karnataka	0	0	0	0	37	34	0	0	31	31
Kerala	24	21	761	760	19	16	25	25	14	14
Lakshdweep	0	0	4	3	0	0	0	0	0	0
Maharashtra	39	35	68	53	41	30	58	43	90	75
Manipur	2	2	23	19	2	1	2	2	9	9

State/UT	TBHV-Medical College		LT – DMC (All sources)		MO – Medical College		LT – Medical College		Data Entry Opertaor	
	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place	Sanc-tioned	In Place
Mizoram	0	0	7	7	0	0	0	0	8	8
Meghalaya	1	1	70	70	1	1	1	1	7	7
Madhya Pradesh	14	14	902	902	14	4	14	11	52	52
Nagaland	0	0	0	0	NA	NA	NA	NA	11	11
Odisha	7	7	584	551	6	4	7	7	31	13
Puducherry	10	5	28	28	4	3	9	8	0	0
Punjab	9	8	268	208	9	8	9	8	23	18
Rajasthan	10	5	1415	1337	6	2	8	4	42	31
Sikkim	1	1	43	43	1	1	1	1	1	0
Telangana	16	8	550	550	16	4	16	13	0	0
Tamil Nadu	53	44	2557	2524	41	29	50	34	36	33
Tripura	2	2	59	59	1	1	2	2	8	7
Uttar Pradesh	36	26	2604	1869	36	26	40	23	89	82
Uttarakhand	7	5	154	142	0	0	4	4	13	12
West Bengal	27	14	945	919	15	9	21	14	38	34

9. NI-KSHAY POSHAN YOJANA

State/UTs/UTs	TOTAL NOTIFICATION	BANK DETAILS AVAILABLE OF TOTAL NOTIFIED (%)	BENEFICIARIES PAID AT LEAST ONE BENEFIT OF TOTAL NOTIFIED (%)
Andaman And Nicobar Islands	534	511 (96)	385 (72)
Andhra Pradesh	92187	86398 (94)	54806 (59)
Arunachal Pradesh	2863	2751 (96)	2280 (80)
Assam	47822	42583 (89)	37573 (79)
Bihar	161165	132208 (82)	85579 (53)
Chandigarh	6066	3401 (56)	1640 (27)
Chhattisgarh	38521	34979 (91)	29467 (76)
Dadra And Nagar Haveli And Daman And Diu	1399	913 (65)	726 (52)
Delhi	106731	63204 (59)	46627 (44)
Goa	2091	1460 (70)	1226 (59)
Gujarat	151912	121404 (80)	96058 (63)
Haryana	75838	67086 (88)	58637 (77)
Himachal Pradesh	16089	15904 (99)	15404 (96)
Jammu And Kashmir	11804	11017 (93)	9340 (79)
Jharkhand	57320	46794 (82)	38094 (66)
Karnataka	80416	70660 (88)	50647 (63)
Kerala	23388	20473 (88)	17170 (73)
Ladakh	320	313 (98)	300 (94)
Lakshadweep	11	11 (100)	11 (100)
Madhya Pradesh	186293	172894 (93)	151965 (82)
Maharashtra	234105	191460 (82)	141887 (61)
Manipur	2554	1976 (77)	140 (5)
Meghalaya	4989	3840 (77)	3058 (61)
Mizoram	2085	2015 (97)	1766 (85)
Nagaland	4125	3493 (85)	2706 (66)
Odisha	60372	56899 (94)	51181 (85)

State/UTs/UTs	TOTAL NOTIFICATION	BANK DETAILS AVAILABLE OF TOTAL NOTIFIED (%)	BENEFICIARIES PAID AT LEAST ONE BENEFIT OF TOTAL NOTIFIED (%)
Puducherry	3835	1365 (36)	1234 (32)
Punjab	55150	47687 (86)	24716 (45)
Rajasthan	169522	149505 (88)	124840 (74)
Sikkim	1395	1301 (93)	1151 (83)
Tamil Nadu	93879	87764 (93)	70666 (75)
Telangana	72941	66337 (91)	57836 (79)
Tripura	3024	3002 (99)	2956 (98)
Uttar Pradesh	522850	436432 (83)	337018 (64)
Uttarakhand	27553	24428 (89)	13141 (48)
West Bengal	100972	91570 (91)	69665 (69)
India	**2422121**	**2064038 (85)**	**1601896 (66)**

10. PMTBMBA MONITORING REPORT -15/02/2023 (AS PER THE FOOD BASKETS DISTRIBUTED)

Sl No	State/UT/Uts	Ni-kshay Mitra Regis-tered	Ni-kshay Mitra agreed upon	Ni-kshay Mitra pend-ing to be agreed upon	TB pa-tients on treat-ment	TB pa-tients con-sent-ed to receive com-munity support	TB pa-tients de-clined to receive com-munity sup-port	TB pa-tients con-sent pend-ing	TB pa-tients sup-ported (Linked to) by Ni-kshay Mitra	TB patients likely to be support-ed by Ni-kshay Mitra	TB pa-tients pend-ing link-age	% Pend-ing link-age	Patients actually supported			
													Till 31st October 2022	From 1st No-vember, 2022 onwards		Total Patients actually support-ed
														Kits distrib-uted at AB-HWC/ PHI	Kits deliv-ered at home	
1	Lakshadweep	11	10	1	13	13	0	0	13	13	0	0	23	2	3	28
2	Ladakh	47	30	17	134	121	1	12	121	121	0	0	0	70	7	77
3	Sikkim	126	88	38	757	682	0	75	682	682	0	0	50	118	124	292
4	Mizoram	58	52	6	1268	1109	2	157	1109	1109	0	0	101	162	45	308
5	Arunachal Pradesh	221	160	61	1329	962	0	367	817	962	145	15.1	413	33	16	462
6	Kerala	117	93	24	12110	5303	3850	2957	3177	3596	419	11.7	5	350	177	532
7	Manipur	74	54	20	1276	607	1	668	607	607	0	0	437	82	22	541
8	Dadra And Nagar Haveli And Daman And Diu	20	16	4	520	507	0	13	507	507	0	0	274	301	3	578
9	Chhattisgarh	531	437	94	22118	17177	26	4915	12053	17177	5124	29.8	5	493	127	625
10	Chandigarh	43	42	1	1859	1668	0	191	1668	1668	0	0	468	213	64	745
11	Nagaland	253	211	42	2120	1606	11	503	1579	1595	16	1	435	527	26	988
12	Meghalaya	70	49	21	2729	1455	0	1274	1311	1347	36	2.7	548	541	9	1098
13	Puducherry	3	3	0	898	570	49	279	563	563	0	0	600	656	2	1258
14	Goa	372	357	15	1387	972	243	172	972	972	0	0	606	815	52	1473
15	Bihar	258	161	97	104659	76505	167	27987	40081	76505	36424	47.6	1	557	939	1497
16	Andaman & Nicobar Islands	90	75	15	424	259	32	133	245	252	7	2.8	843	639	62	1544
17	Tripura	1719	1635	84	1442	1408	0	34	1408	1408	0	0	1441	324	449	2214
18	Jammu & Kashmir	4153	3726	427	5951	5144	137	670	5144	5144	0	0	659	2342	69	3070

Sl No	State/UT/Uts	Ni-kshay Mitra Regis-tered	Ni-kshay Mitra agreed upon	Ni-kshay Mitra pend-ing to be agreed upon	TB pa-tients on treat-ment	TB pa-tients con-sent-ed to receive com-munity support	TB pa-tients de-clined to receive com-munity sup-port	TB pa-tients con-sent pend-ing	TB pa-tients sup-ported (Linked to) by Ni-kshay Mitra	TB patients likely to be support-ed by Ni-kshay Mitra	TB pa-tients pend-ing link-age	% Pend-ing link-age	Patients actually supported			
													Till 31st October 2022	From 1st No-vember, 2022 onwards		Total Patients actually support-ed
														Kits distrib-uted at AB-HWC/ PHI	Kits deliv-ered at home	
19	West Bengal	821	624	197	52866	35314	247	17305	26770	35314	8544	24.2	268	2431	1310	4009
20	Himachal Pradesh	1301	957	344	7511	6614	289	608	6592	6614	22	0.3	555	3236	831	4622
21	Punjab	169	134	35	30630	25241	63	5326	25241	25241	0	0	2838	2366	282	5486
22	Haryana	1314	1038	276	38297	30003	1179	7115	30003	30003	0	0	3761	1847	294	5902
23	Delhi	458	431	27	48020	38662	2038	7320	38662	38662	0	0	1048	5309	22	6379
24	Madhya Pradesh	4221	3857	364	95737	88270	318	7149	88270	88270	0	0	610	5006	861	6477
25	Telangana	541	491	50	40922	33360	1203	6359	33360	33360	0	0	439	6837	151	7427
26	Tamil Nadu	212	140	72	50396	358	51	49987	0	355	355	100	0	66	18	7577*
27	Assam	2234	1941	293	23213	18292	10	4911	17899	18292	393	2.1	2549	5202	378	8129
28	Jharkhand	1755	1578	177	30573	27153	83	3337	21722	25333	3611	14.3	653	7030	481	8164
29	Uttarakhand	8291	7957	334	12004	8987	1262	1755	8987	8987	0	0	3255	6040	377	9672
30	Rajasthan	857	709	148	81291	67817	1143	12331	67817	67817	0	0	9177	3633	875	13685
31	Odisha	1592	1527	65	31581	26327	190	5064	23217	24192	975	4	1104	11578	1747	14429
32	Andhra Pradesh	2618	2510	108	46240	38791	207	7242	38790	38791	1	0	8550	5758	231	14539
33	Karnataka	2910	2644	266	38346	26679	2499	9168	26105	26679	574	2.2	17057	13043	2927	33027
34	Gujarat	2145	1913	232	79881	65954	4121	9806	63836	65954	2118	3.2	21770	21765	8053	51588
35	Maharashtra	4180	3895	285	153109	116015	6745	30349	115262	115262	0	0	22421	29530	3825	55776
36	Uttar Pradesh	22601	18006	4595	281550	216743	9171	55636	216743	216743	0	0	14640	47397	11171	81600*
	India	**66386**	**57551**	**8835**	**1303161**	**986648**	**35338**	**281175**	**921333**	**980097**	**58764**	**6**	**117604**	**186299**	**36030**	**355818**

Central TB Division

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