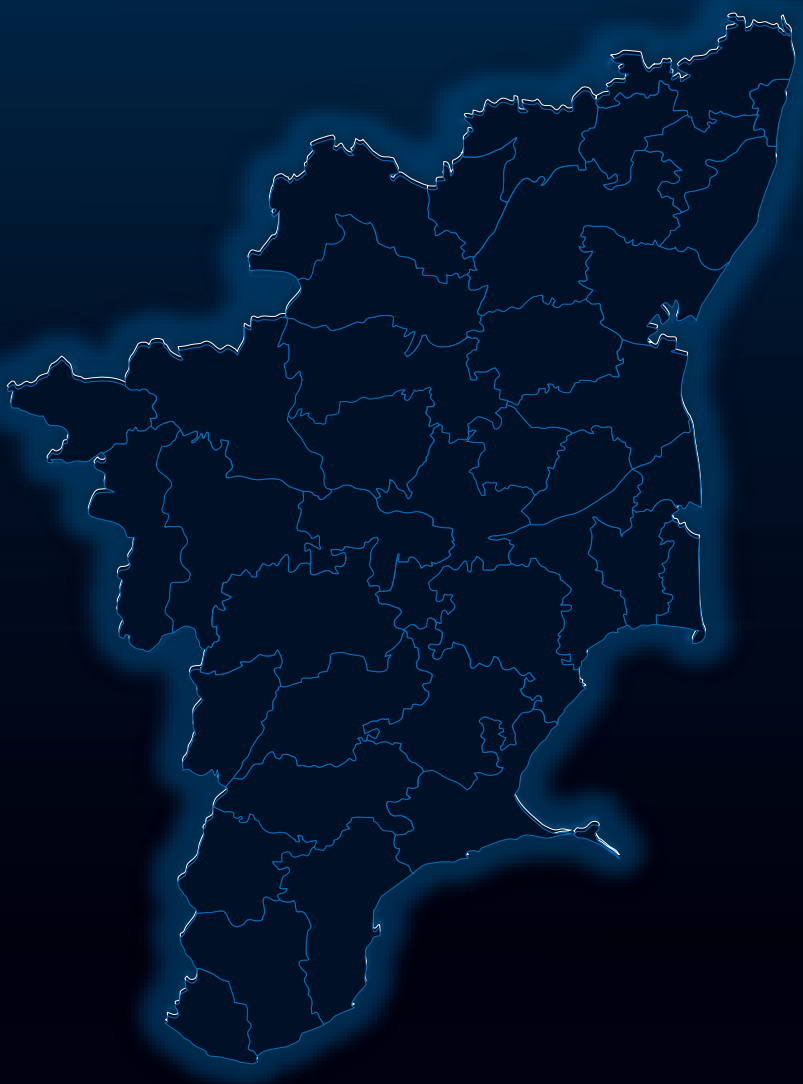
World Health Organization India

NATIONAL HEALTH MISSION
தேசிய நலவாழ்வு குழுமம்
தமிழ்நாடு

Government Of Tamilnadu

D D P H

# NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME TAMIL NADU



## TAMIL NADU STATE SPECIFIC STRATEGIC PLAN FOR TB ELIMINATION 2.0

YES
WE CAN END TB

# NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME TAMIL NADU



## TAMIL NADU STATE SPECIFIC STRATEGIC PLAN FOR TB ELIMINATION 2.0

YES WE CAN END TB



**Thiru Ma.Subramanian**
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## Preface

I am pleased to announce the release of the revised State Strategic Plan for TB Elimination in Tamil Nadu. This is a significant milestone in our efforts to eliminate tuberculosis in the state by 2025, in line with the national target. Tuberculosis is a major public health challenge in India and Tamil Nadu, and it is crucial that we work together to overcome it. The strategic plan provides a comprehensive roadmap for the elimination of TB in Tamil Nadu. It is a culmination of the collaborative efforts of the government, healthcare providers, civil society organizations, and the private sector. The plan includes evidence-based interventions that have been proven to be effective in preventing, diagnosing, and treating TB. It also outlines the key roles and responsibilities of various stakeholders, and the resources required for the implementation of the plan.

The successful implementation of the strategic plan will require the active participation and collaboration of all stakeholders. I urge everyone to work together towards achieving the goal of a TB-free Tamil Nadu. Let us take this opportunity to reaffirm our commitment to improving the health and well-being of the people of Tamil Nadu.

I would like to express my appreciation to all those who have contributed to the development of this plan. With our collective efforts, we can make a difference and create a healthier and more prosperous future for our state. Yes! We can END TB



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## Preface

I am delighted to announce the release of the State Strategic Plan for TB Elimination in Tamil Nadu. This plan represents a significant step forward in our efforts to eliminate tuberculosis in the state by 2025, in line with the national target. I congratulate National TB Elimination Programme staff partners for the various efforts taken. The effort from private sector is also commendable. Now, we have come up with the revised state strategic plan, which is more of a road map and guidance document for intensifying our efforts towards elimination of TB by 2025. The strategic plan is the result of extensive collaboration between the government, healthcare providers, civil society organizations, and the private sector. The plan also highlights the key roles and responsibilities of various stakeholders and the resources required for its implementation.

Congratulations to all who have contributed for the preparation of this plan. With our collective efforts, we can overcome the challenges posed by TB and protect our future generations from the ill effects of TB. I am sure, a joint effort from all of us can eliminate TB from our state by 2025. Together we can say, Yes! We can END TB.



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## Preface

I am happy to announce the publication of Tamil Nadu's updated State Strategy Plan for TB Eradication. This is a big step towards our goal of meeting the national target of eliminating tuberculosis in the state by 2025. In India and Tamil Nadu, tuberculosis poses a serious public health threat, and it is essential that we cooperate to find a solution. I'm pleased to say that our state has always envisaged its policies for the betterment of its citizens. I should commend the NTEP team and partners for demonstrating our strength and skill in navigating the Covid's choppy waters. The corporate sector's effort is equally remarkable. A thorough road map for the eradication of tuberculosis in Tamil Nadu is provided by the strategic plan. It is the result of coordinated efforts from the public and business sectors, as well as healthcare organisations and civil society groups. The strategy calls for the use of evidence-based interventions that have been demonstrated to be successful in TB diagnosis, treatment, and prevention. Also, it lists the principal duties and obligations. All stakeholders must actively engage in and collaborate on the strategic plan's implementation for it to be successful. I implore everyone to cooperate to eliminate tuberculosis from Tamil Nadu. Take this chance to reiterate our dedication to enhancing Tamil Nadu's population's health and wellbeing.

To everyone who helped with the creation of this strategy, I would want to convey my gratitude. We can change things and give our state a future that is both healthier and more prosperous if we work together. Yes! We can End TB.



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## Foreword

Tamil Nadu has been making significant progress in the fight against tuberculosis (TB) in recent years. Eight districts have achieved Sub-National certification and the others will be following the model. It is the only state in India with forty-two Mobile diagnostic units with portable X-ray which caters to different target populations which includes industries, slums, corporate, un-organized sector and even the hard-to-reach population. Technical advances like usage of artificial intelligence and real time tracking of active case finding are commendable efforts in Tamil Nadu. Active case finding has become a routine activity in the state. State is able to cater to the nutritional needs of patients; there is a multi-sectoral approach and private sector engagement which intensifies the effort to eliminate TB by 2025. Almost all patients are receiving direct benefit transfer for supplementary nutrition.

To accelerate efforts towards the goal of TB free Tamil Nadu by 2025, the Tamil Nadu government has developed a State Strategic Plan for TB elimination. The plan outlines the vision, goals, objectives, and strategies for TB control and elimination in Tamil Nadu by 2025. It considers the current epidemiological situation of TB in the state and the global targets for TB elimination. The plan has been developed through consultative process involving various stakeholders, including government departments, civil society organizations, healthcare providers, eminent practitioners, Key opinion leaders, TB Champions, patients etc. It is based on evidence-based approaches and best practices in TB control and elimination. The implementation of this plan will require coordinated efforts and partnerships across various sectors and stakeholders. The plan aims to strengthen the health system's capacity to detect, treat, and prevent TB, as well as to address the social and economic determinants of TB. The success of this plan will depend on the commitment and participation of all stakeholders, including the government, civil society organizations, healthcare providers, patients, and communities. The State Strategic Plan for TB elimination in Tamil Nadu represents a critical step towards achieving the goal of a TB-free Tamil Nadu.

I would like to avail this opportunity to acknowledge and congratulate all our staff and partners for their exemplary efforts for TB free Tamil Nadu. Yes! We can END TB.



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## Preface

Tamil Nadu is not an exception when it comes to India's widespread TB epidemic. Despite tremendous advancements in TB diagnosis, management, and control over the years, it is still a significant public health issue in our state. The Tamil Nadu government is dedicated to TB burden reduction and ensuring that all patients receive the best care. In accordance with the national goal, this strategic plan lays out a precise road map for the eradication of tuberculosis in Tamil Nadu by 2025.

A variety of evidence-based interventions that have been shown to be successful in preventing, diagnosing, and treating TB are included in the strategy. It also describes the main obligations of different parties involved, such as the public sector, healthcare providers, civil society groups, and the corporate sector. The plan aims to strengthen the health system's capacity to identify, treat, and prevent the disease while also addressing the social and economic factors that contribute to TB. The success of the strategy will depend on the commitment and participation of all parties, including the government, civil society organisations, healthcare professionals, patients, and communities.

The State Strategic Plan for TB Elimination in Tamil Nadu is a key component in achieving the goal of a TB-free Tamil Nadu. I would want to take this opportunity to congratulate and recognise every member of our staff as well as our partners for their outstanding efforts. Yes! We can End TB.



**Dr. A. Shanmugakani,**
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## Preface

In recent years, Tamil Nadu has made great strides in the fight against tuberculosis (TB).Innovative technological endeavours in Tamil Nadu include the use of artificial intelligence and real-time tracking of ongoing case investigations. The state now regularly engages in active case finding. A multi-sectoral strategy and business sector involvement are intensifying efforts to eradicate TB by 2025. For supplemental nutrition, almost all patients are receiving direct benefit transfers from the State of Tamil Nadu.

The Tamil Nadu government has created a State Strategic Plan for TB Elimination to expedite efforts towards the objective of TB-free Tamil Nadu by 2025.It is based on strategies and best practises for TB control and elimination that are evidence-based. This plan's implementation will demand collaborative efforts and partnerships from numerous sectors and stakeholders. The plan intends to address the social and economic drivers of TB as well as improve the health system's ability to diagnose, treat, and prevent the disease.

The dedication and involvement of all parties involved, including the government, civil society organisations, healthcare professionals, patients, and communities, will be essential to the plan's success. A crucial step in realising the objective of a TB-free Tamil Nadu is the State Strategy Plan for TB Elimination in Tamil Nadu. I'd want to take this chance to thank and recognise every one of our personnel and partners for their excellent work. Together we can say, Yes! We can End TB.



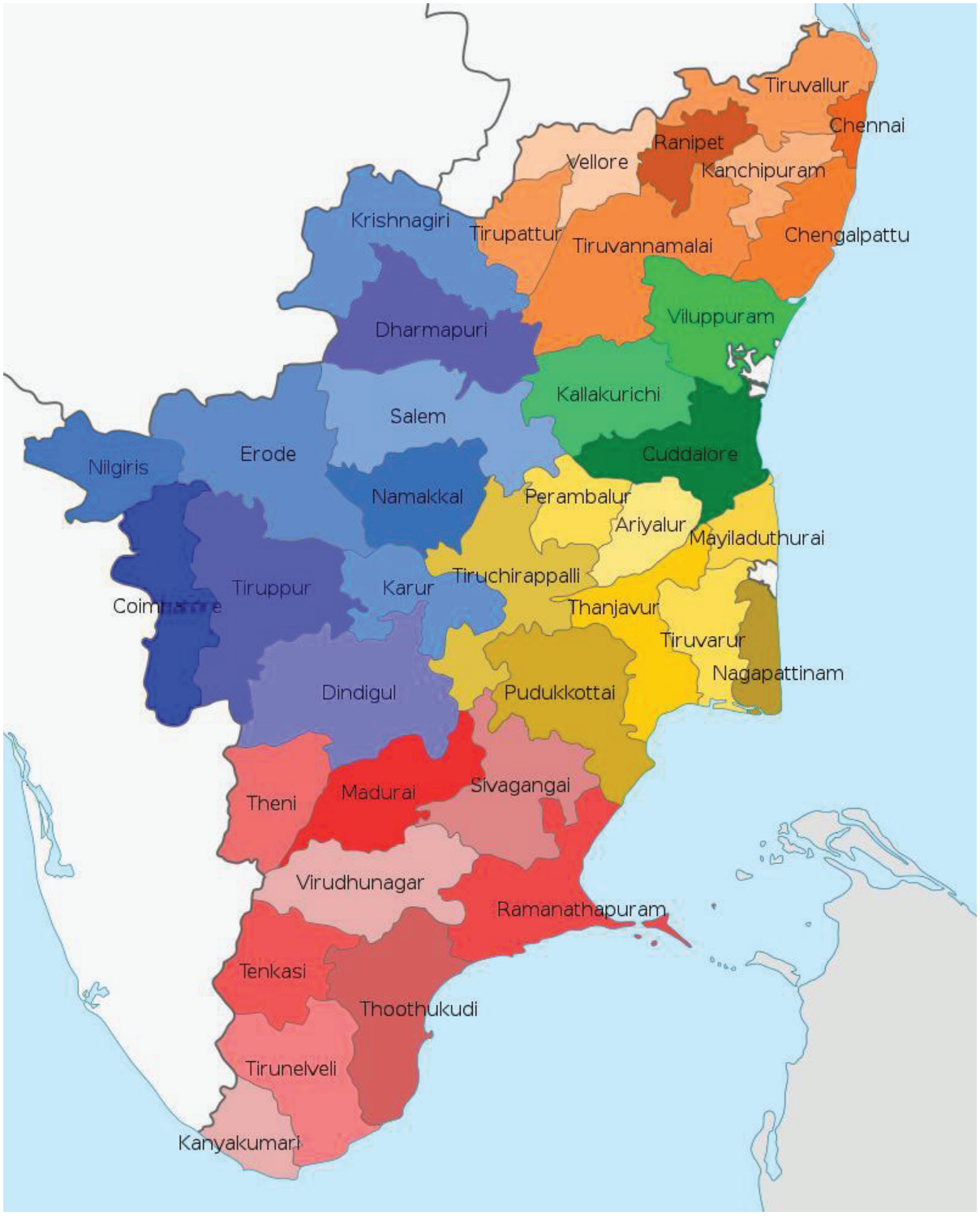
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## Foreword

I am delighted to present the revised State Strategic Plan for TB Elimination for the state of Tamil Nadu. Tuberculosis (TB) is a major public health problem in India and Tamil Nadu is no exception. Despite significant progress made in the diagnosis, treatment, and control of TB over the years, it remains a major health concern in our state. The Government of Tamil Nadu is committed to reducing the burden of TB and ensuring that all patients receive the best possible care.

This strategic plan sets out a clear roadmap for the elimination of TB in Tamil Nadu by 2025, in line with the national target. The plan includes a range of evidence-based interventions that have been proven to be effective in preventing, diagnosing, and treating TB. It also outlines the key roles and responsibilities of various stakeholders, including the government, healthcare providers, civil society organizations, and the private sector.

The successful implementation of this strategic plan will require the active participation and collaboration of all stakeholders. I take this opportunity to urge everyone to work together towards achieving the goal of a TB-free Tamil Nadu. Let us intensify our efforts to eliminate TB once and for all and create a healthier and more prosperous future for our state. Yes! We can END TB.




# Tamil Nadu State Specific Strategic plan for TB Elimination 2.0

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# Background

## Geography

Tamil Nadu is the southernmost state of India. Tamil Nadu covers an area of 130,058 $km^2$ and is the eleventh largest state in India. Tamil Nadu has a coastline of about 1000 km which forms about 18% of the country's coastline (third longest). Total population of Tamil Nadu as per latest census data is 72,147,030 of which male and female are 36,137,975 and 36,009,055 respectively. It lies on the eastern coast of the southern Indian peninsula bordered by Puducherry, Kerala, Karnataka, and Andhra Pradesh. Tamil Nadu is bound by the Eastern Ghats in the north, the Nilgiris, the Anamalai Hills, and Palakkad on the west, the Bay of Bengal in the east, Gulf of Mannar, Palk Strait in the southeast and the Indian Ocean in the south. It is one of the most industrialized and urbanized states in India. The state is highly urbanized and industrialized, with 48.4% of its population living in urban regions and 51.6% residing in rural areas. The following table showing some data pertaining to the state from Census 2011. According to the National Health profile 2021, 82.6 lakh population (11.3%) in Tamil Nadu fall below the poverty line, with a higher percentage residing in rural areas (15.8%). The age-sex pyramid of the population in 2011 is illustrated in Fig. 1.

**Table 1: Population profile of Tamil Nadu**

| | |
|---|---|
| Total population | 72147030 |
| Male | 36137975 (50.1%) |
| Female | 36009055 (49.9%) |
| Total number of scheduled tribes and scheduled castes | 49629702 (68.8%) |
| Total rural population | 37229590 (51.6%) |
| Total urban population | 34917440 (98.4%) |
| Decadal growth | 15.61 |
| Population density | 555 per sq. km |
| Female to male ratio | 996 |
| Projected population in 2023 | 76860000 |
| Projected population growth rate (2021-2025) | 3% |

**(Source: Census 2011[1], National health profile 2021[2])**

[1] Area and population of Tamil Nadu. Available at: https://www.tn.gov.in/deptst/areaandpopulation.pdf.
[2] National health profile 2021. Central Bureau of Health Intelligence. Available at: https://www.cbhidghs.nic.in/showfile.php?lid=1160.

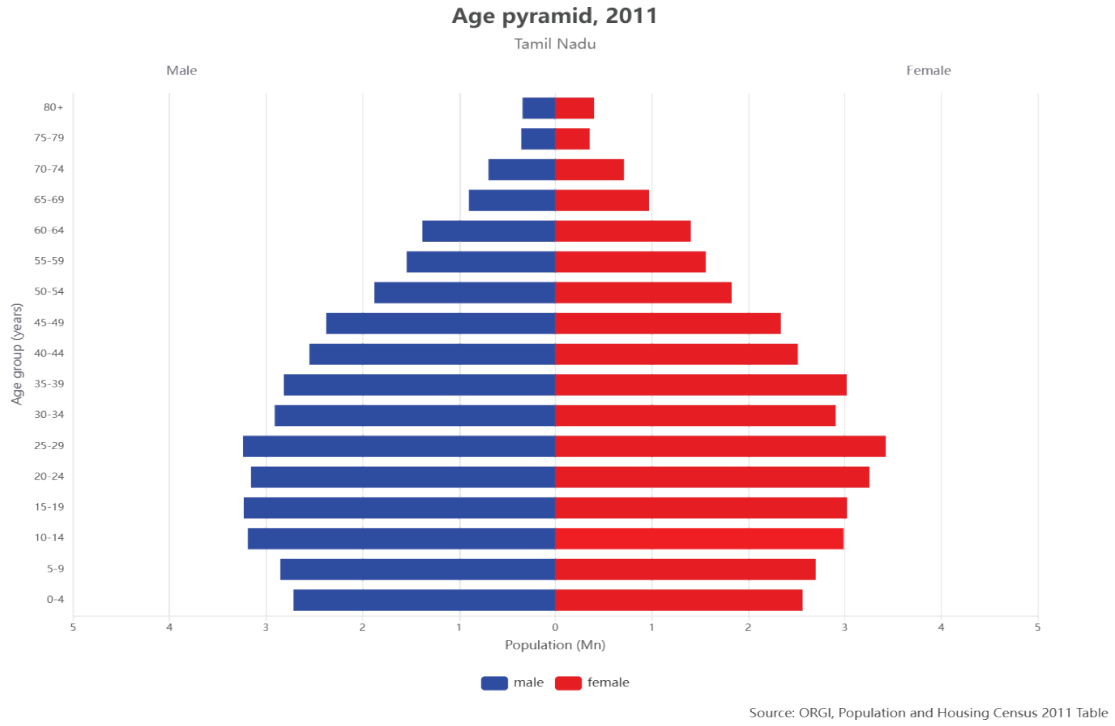



**Fig. 1: Age-sex pyramid of the population in 2011**

### Health system in Tamil Nadu

The organized health service of Tamil Nadu is designed to provide healthcare services to all individuals, and its made up of 38 revenue districts and 45 Health Unit Districts (HUDs).

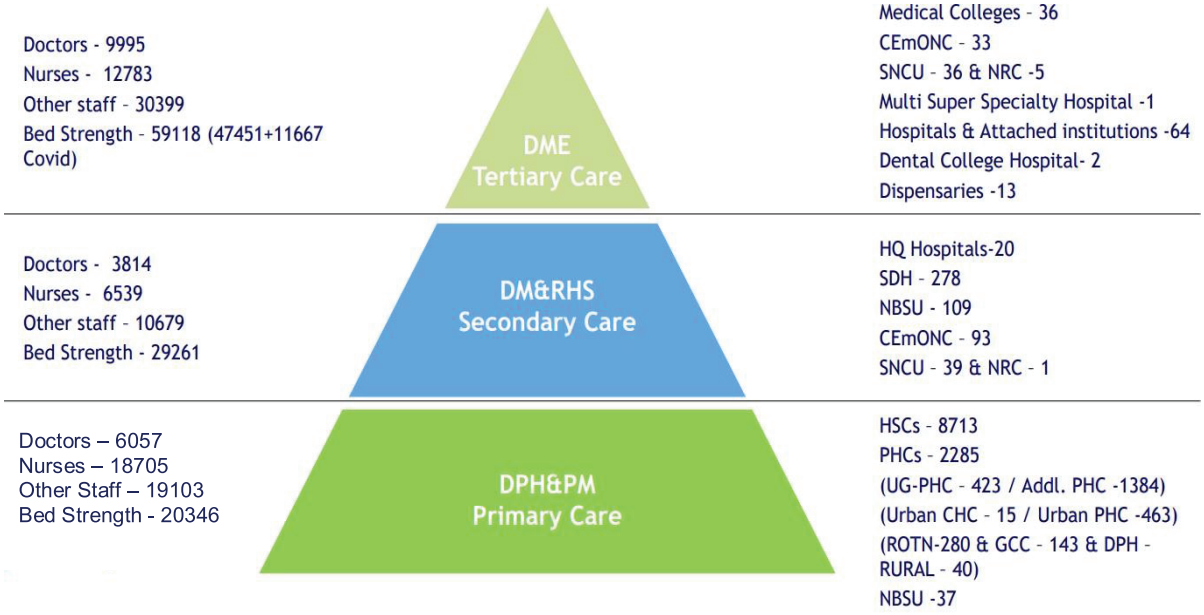



**Fig. 2: Health care system and its human resources in Tamil Nadu**

**Table 2: Tamil Nadu health profile**

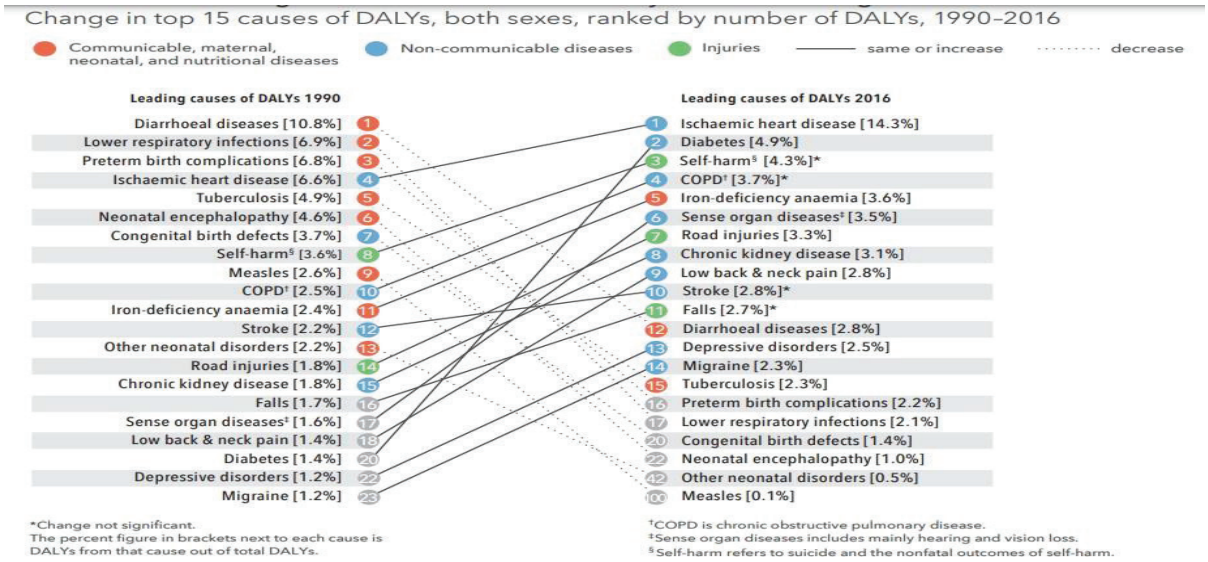
The life expectancy at birth in the state was 70.9 years for males and 75 years for females. While life expectancy at birth is a useful simple measure of a state's health status, it does not reflect the variations and nuances in health loss throughout a person's lifespan.

| | |
|---|---|
| Projected Life expectancy at birth (2021-2025) | Males – 70.9 years<br>Females – 75 years |
| Infant mortality in 2019 | 13/1000 live births |
| Maternal mortality ratio (2016-2018) | 60/100000 live births |
| Birth rate in 2020 | 13.8% |
| Death rate in 2020 | 6.1% |

**(Source: National Health profile 2021[3], SRS 2022[4])**

Population is living longer, meaning that non-communicable diseases and injuries have been increasingly contributing to overall disease burden in 2016. Communicable diseases, on the other hand, contribute to 20% of the state's total disease burden. Although the absolute burden of Tuberculosis, diarrhoeal diseases, and lower respiratory infections is decreasing, it still remains high.

**Fig. 3: Change in top 15 causes of Death and Disability adjusted Life Years (DALY) combined, 1990 – 2016 (Source: IHME, GBD estimates)[5]**



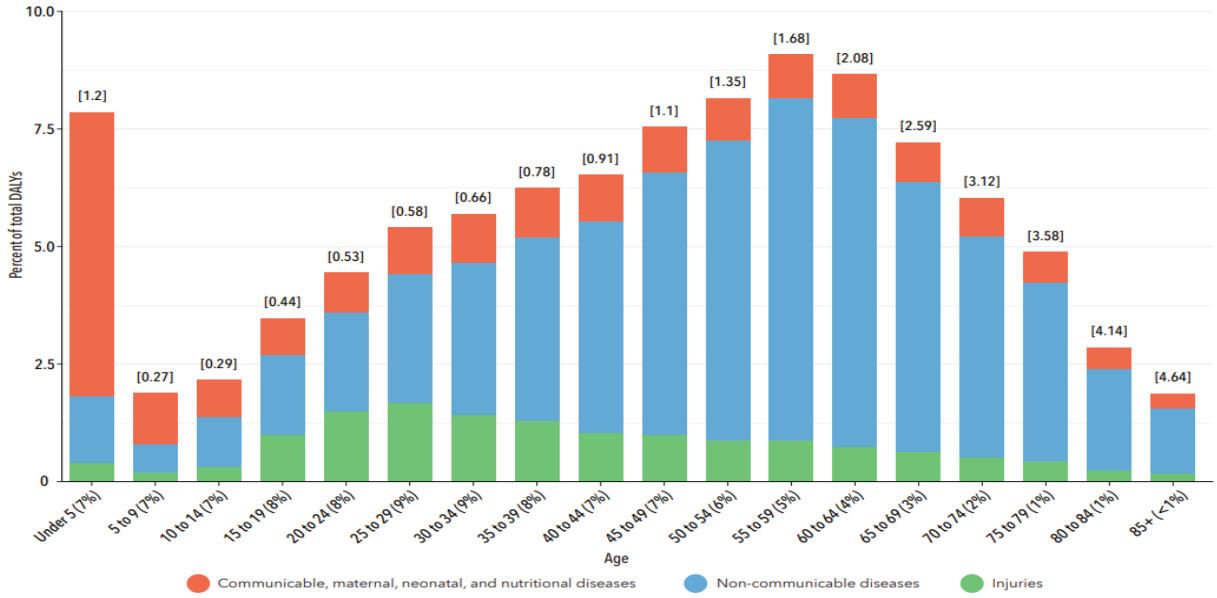

[3] National health profile 2021. Central Bureau of Health Intelligence. Available at: https://www.cbhidghs.nic.in/showfile.php?lid=1160.

[4] Sample Registration System (SRS) Bulletin 2020 volume 55-1. Available at: https://censusindia.gov.in/nada/index.php/catalog/42687.

[5] India: Health of the Nation's States. Tamil Nadu Disease Burden Profile. Available at: https://www.healthdata.org/policy-report/india-health-nation%E2%80%99s-states.

The proportion of deaths due to communicable diseases reduced when compared to Non-Communicable Diseases (NCDs)

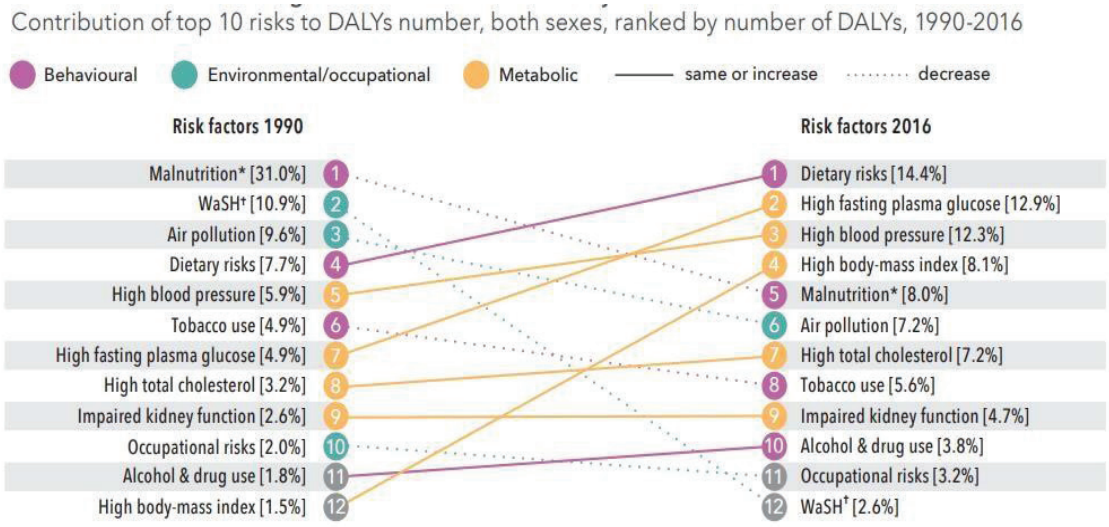
**Fig. 4: Cause (%) of DALYs across age groups in 2016 (Source: IHME, GBD estimates)[6]**




The behavioural and metabolic risk factors associated with the rising burden of NCDs have become quite prominent in Tamil Nadu. Risk factors associated with dietary habits, such as low consumption of fruits, vegetables, and whole grains, coupled with high intake of salt and fat, were the leading factors contributing to this problem. Additionally, high blood pressure and high blood sugar levels were also significant risk factors. These risks drive health loss mainly from cardiovascular disease and diabetes, and from cancer in the case of dietary risks. Despite the increasing global awareness of the health risks it poses, tobacco use, including smoking, second-hand smoke, and smokeless tobacco, remains a major risk factor in Tamil Nadu and caused 5.6% of the total disability-adjusted life years (DALYs) in 2016. (Fig. 4)

[6] India: Health of the Nation's States. Tamil Nadu Disease Burden Profile. Available at: https://www.healthdata.org/policy-report/india-health-nation%E2%80%99s-states.

**Fig. 5: Contribution of top 10 risks to DALYs number, both sexes, marked by number of DALYs 1990 – 2016 (Source: IHME, GBD estimates)[7]**




The total literacy rate of Tamil Nadu is 80.09% which is greater than the average literacy rate 72.98% of India. Also, the male literacy rate is 86.77% and the female literacy rate is 73.44% in Tamil Nadu. Out of pocket expenditure for hospitalization (excluding childbirth) is high in urban areas. Average medical and non-medical expenditure on account of hospitalization in urban and rural area is 26,066 (Rs.) and 14,974 (Rs.) respectively. (Table 3)

**Table 3: Social determinants of health**

| | |
|---|---|
| % of population falling BPL | 82.6 lakh (11.3%) |
| HH income as major source of expenditure during hospitalization | 76.5% in rural & 77.5% in urban |
| Avg. out of pocket medical expenditure per hospitalization case (Rs) | 12,057 in rural & 19,963 in urban |
| Literacy rate | 80.09% |

**(Source: National health profile 2021)[8]**

[7] India: Health of the Nation's States. Tamil Nadu Disease Burden Profile. Available at: https://www.healthdata.org/policy-report/india-health-nation%E2%80%99s-states.
[8] National health profile 2021. Central Bureau of Health Intelligence. Available at: https://www.cbhidghs.nic.in/showfile.php?lid=1160.

# What are the determinants of TB in Tamil Nadu?

**Nutritional status**

As per NFHS – 5 data, 13% of women are too thin. More than half (53%) of women and 49% of men are either too thin, overweight, or obese. Undernutrition is particularly common in the younger age groups (15-19 years), in rural areas for women, and among scheduled tribes. Children's nutritional status had slightly improved than the NFHS – 4. However, still 25% of children under 5 years are stunted and 15% of them are too thin for their height (wasting). 22% of the children are underweight, which considers both chronic and acute undernutrition. **(Source: NFHS – 5)**[9]

**PLHIV**

Tamil Nadu is one among the states with high HIV prevalence. As per HIV estimate report 2021, 0.02% is the incidence of HIV per 1000 uninfected population. Which means 1,498 (998-2,070) new infections have been reported annually. It is observed that the trend of new HIV infection by 2021 has declined by 72% when compared to 2010. AIDS related mortality per 100,000 population in the state is 2.72% (1.84 – 3.82). There has been a decline in AIDS-related deaths by 82% between 2010 to 2021. Adult HIV prevalence (0.28 in 2021) shows declining trend when compared to 2010 (0.37). **(Source: India HIV estimates 2021 fact sheet by NACO)**[10]

**Diabetes**

According to self-reports, 2896 women and 2,565 men aged 15-49 per 1,00,000 have diabetes. 5% of women and 6% of men aged 15-49 have high blood glucose levels. **(Source: NFHS – 5)**[11]

**Smoking and alcoholism**

In Tamil Nadu 20% of men and 1% of women aged 15-49 use some form of tobacco. The use of any form of tobacco is slightly higher in rural areas (2% for women and 21% for men) than in urban areas (1% for women and 19% for men). A negligible proportion (0.1%) of women and one-third of men drink alcohol. **(Source: NFHS – 5)**[12]

[9] State fact sheet Tamil Nadu. Available at: http://rchiips.org/nfhs/NFHS-5_FCTS/Tamil_Nadu.pdf.
[10] India HIV estimates 2021 fact sheet. Available at: https://naco.gov.in/sites/default/files/India%20HIV%20Estimates%202021%20_Fact%20Sheets Final_Shared_24_08_2022.pdf.
[11] State fact sheet Tamil Nadu. Available at: http://rchiips.org/nfhs/NFHS-5_FCTS/Tamil_Nadu.pdf.
[12] State fact sheet Tamil Nadu. Available at: http://rchiips.org/nfhs/NFHS-5_FCTS/Tamil_Nadu.pdf.

# INTRODUCTION

Tuberculosis (TB) is a communicable disease that is a major cause of ill health and one of the leading causes of death worldwide. According to Global TB report 2022, an estimated 10.6 million people fell ill with TB worldwide in 2021, an increase of 4.5% from 10.1 million in 2020. Similarly, the TB incidence rate (new cases per 100000 population per year) is estimated to have increased by 3.6% between 2020 and 2021. India accounted for 28% of all estimated incident cases worldwide. Tuberculosis (TB) continues to be a major health problem in India.

**Table 4: Estimates of TB burden in 2021**

| Indicators | Global | India |
|---|---|---|
| Total TB incidence (per 100000 population) | 134 (125 – 143) | 210* (178-244) |
| HIV-positive TB incidence | 8.9 (8 – 9.9) | 3.9 (3.3 – 4.5) |
| MDR/RR -TB incidence | 3.6 (2.7 – 4.4) | 8.5 (6.6 – 10) |
| HIV negative TB mortality | 17 (16 – 19) | 35 (31 – 40) |
| HIV positive TB mortality | 2.4 (2 – 2.8) | 0.81 (0.71 – 0.92) |
| TB case fatality ratio | 15% | 17% |

**Estimates of TB burden are produced by WHO in consultation with countries. Ranges represent uncertainty intervals.*[13]

TB programme in India is largely guided by the National Strategic Plans (NSP), the latest being NSP for TB Elimination 2020-25. Since 2001, Revised National Tuberculosis Control Program is implemented in the state which was later renamed as National Tuberculosis Elimination Program (NTEP). The following services are being provided under the program,

**a) TB diagnostic services**

- Since 2001, under the programme 1968 Designated Microscopic centres are functioning for TB case detection in the state. 127 CBNAAT centres, 147 TruNAAT centres, 3CDST (2 newly certified) and 2 IRLs are functioning to provide TB Services, Universal Drug Susceptibility Testing and DRTB tests to all diagnosed TB patients. 24 District DRTB centres and 7 Nodal DRTB centres are

[13] Global Tuberculosis Report 2022. Country, regional, and global profiles. Available at: https://worldhealthorg.shinyapps.io/tb_profiles/?_inputs_&entity_type=%22country%22&lan=%22EN%22&iso2=%22AF%22.

functioning to provide DRTB services in the state. In 2022, 93948 TB patients were identified, of which 22,038 TB patients were from the private sector.

- Active case finding is done all over the state through Mobile Diagnostic Units, equipped with AI based X-ray reading. There are 42 MDU´s equipped with x-ray for community-based screening for TB.

**b) Patient care services**

- Fixed Drug Combinations (FDC) as per appropriate weight bands are provided to all the patients and are also made available to private providers for those patients who prefer treatment in private hospitals. Also, in 2022, 1680 DRTB patients were identified and initiated on appropriate treatment regimen.

- Children less than 6 years are particularly vulnerable for severe disseminated TB disease and TB related mortality. Under NTEP, all children who are contacts of people diagnosed with tuberculosis are regularly screened and TB preventive therapy (TPT) is given. PLHIV patients are screened for TB and provided TB preventive therapy. IGRA and CY-TB testing (under research setting) were introduced to find out the LTBI cases.

- ICMR-NIE and State TB cell jointly lead Tamil Nadu Kasanoi Erappila Thittam (TN-KET – means TB death-free project in Tamil Nadu). TN-KET is implemented as a health system initiative in routine operational settings by existing health workforce. All public hospitals that diagnosed TB used a single paper triage tool. 150 TN-KET nodal inpatient care facilities (≈900 TB beds earmarked) were identified (with a nodal physician) and provided a single-paper case record form for comprehensive assessment and an inpatient care guide for management of severely ill adults with TB.

**c) Patient support services**

To improve Nutritional status of TB patients' financial incentive of Rs.500/- per month is given to all notified TB patients through Direct Benefit Transfer (DBT) under Nikshay Poshan Yojana Scheme.

# Situational analysis: Where are we now?

### TB prevalence

The National prevalence survey (NTBPS) in India was conducted from 2019 to 2021. The survey estimated the point prevalence of microbiologically confirmed pulmonary TB among persons ≥15 years in India for 20 individual states. A total national sample size of 5,00,000 was calculated, distributed over 625 clusters with 800 population per cluster. The prevalence of all forms of PTB in India was 316 per lakh population (95% CI: 286 – 337), while the prevalence of TB in Tamil Nadu was estimated to be 322 per lakh population (95% CI: 258 – 385).[14] According to Tamil Nadu TB prevalence survey, the crude prevalence of TB is 186 per lakh population(95% CI: 163 – 210).

### TB incidence

The total estimated TB incidence in 2020 was 153 patients per 100,000 population. TB incidence appears to be declining with 19.8% rate decrease since 2015 (incidence rate: 191/100,000 population from the figures given by Central TB Division)

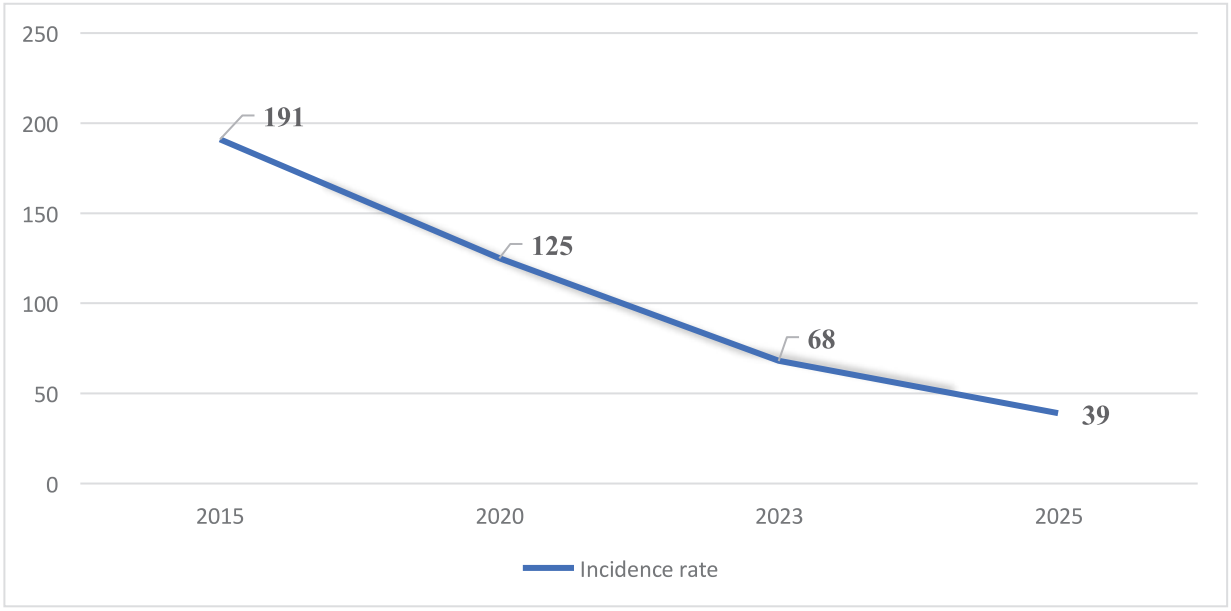



**Fig. 6: Estimated incidence trend**

[14] National TB Prevalence Survey in India (2019-2021). Available at: https://tbcindia.gov.in/showfile.php?lid=3659.

**Case finding activity**

Since the first wave of COVID-19 in 2019, there has been a notable increase in case notifications year-after-year, including a 38% increase in notifications between 2021 and 2022.

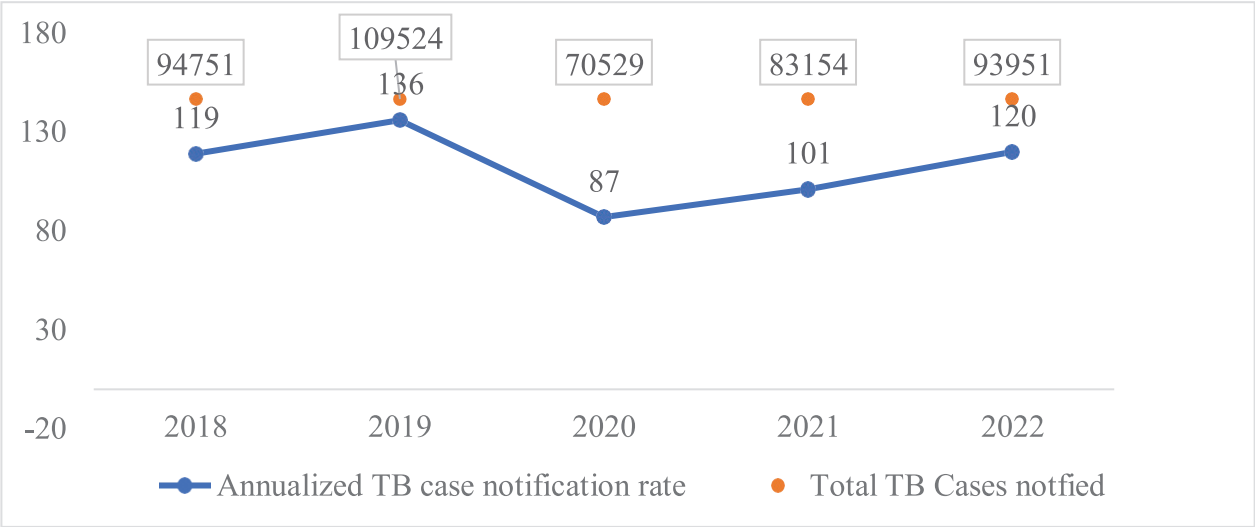



**Fig. 7: Trend in TB notification rate**

A 12% gain in the total notification has been achieved when compared with the previous year. Private sector TB notification witnessed 18% gain in TB notification against 11% gain seen in the public sector.

**Table 5: Distribution of case notification achievement based on public and private sector**

| Sector | Target | Notification | % Achieved |
|---|---|---|---|
| Public | 88600 | 71910 | 81.2% |
| Private | 31400 | 22041 | 70.2% |
| Total | 120000 | 93951 | 78.3% |

**Presumptive TB examinations**

Since 2018, bacteriological confirmation amongst new and previously treated patients in the public sector has been increasing over time. The testing rate has been increased 2 times when compared with the year 2021.

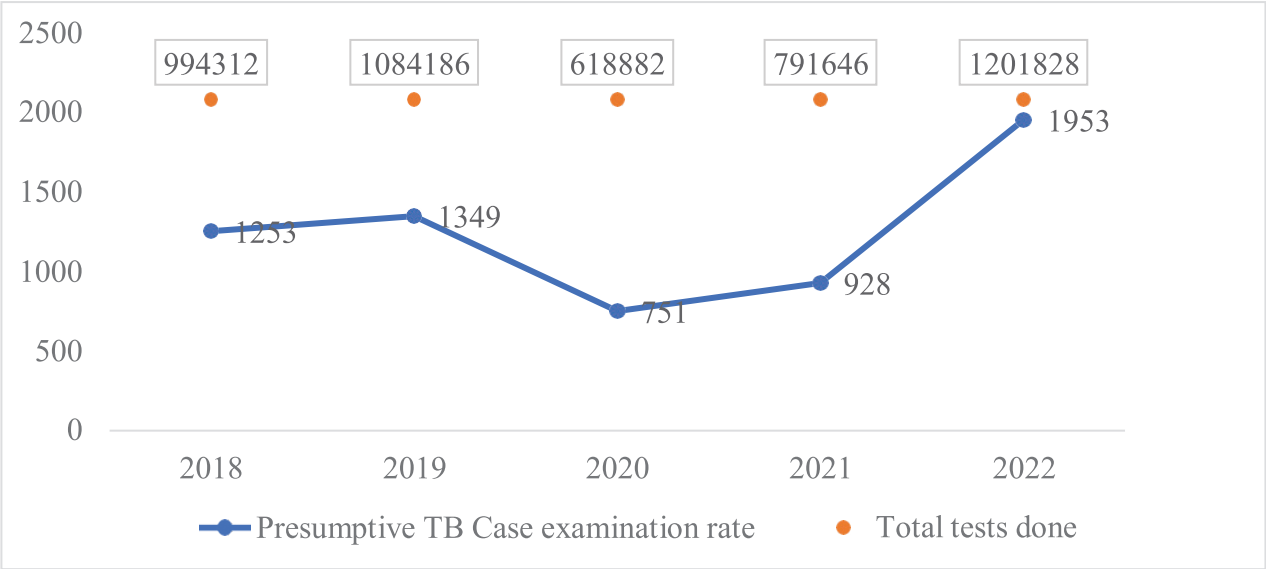



**Fig. 8: Trend in presumptive TB examination rate**

Around 12.01 Lakh presumptive were tested between (Jan to Dec 2022) with Presumptive TB examination rate 1953 per lakh population. A total of 1.8 lakh presumptive cases have been offered molecular tests (NAAT) in the 127 CBNAAT and 147 TruNAAT facilities. The testing rate has increased by 2 times when compared with the year 2021.

**Table 6: Presumptive TB examination rate based on the type of diagnostic test**

| Period | Presumptive TB Cases Examined | | | | % Change over previous year |
|---|---|---|---|---|---|
| | Microscopy (N) | Molecular tests (N) | Total (N) | Rate | |
| 2018 | 831785 | 162527 | 994312 | 1253 | |
| 2019 | 914652 | 169534 | 1084186 | 1349 | 8%↑ |
| 2020 | 499948 | 111925 | 618882 | 751 | 44%↓ |
| 2021 | 653418 | 138228 | 791646 | 928 | 24%↑ |
| 2022 | **1275512** | **237008** | **1512520** | **1953** | **103%↑** |

**Expansion of NAAT sites**

With the available 228 NAAT machines, the state has offered 1.87 lakh presumptive TB cases with molecular tests. Currently the ratio of upfront molecular tests to smear microscopy is 16%: 84%.

The state has purchased 46 CBNAAT machines to be placed in high load DMC in such a manner that, up front NAAT tests can be given to 8.65 lakhs presumptive TB cases in a ratio of molecular to smear microscopy 60%: 40%.

**Table7: NAAT facilities in Tami Nadu**

| Status of machines | CBNAAT | TruNAAT | Total |
|---|---|---|---|
| Existing | 81 | 147 | 228 |
| Additional | 46 | 0 | 46 |
| Total | 127 | 147 | 274 |

**TB detection centres (TDC) utilization**

Around 1/3rd of the DMCs are testing <20 (32%) tests per month in 2022.

**Table8: status of TDC utilization in the state**

| TDCs Category | Number of TDCs | Adult OPD | Presumptive TB cases referred for Smear Microscopy | % Presumptive TB cases referred for Smear Microscopy |
|---|---|---|---|---|
| > 20 tests/ month | 1333 | 3,70,51,622 | 12,07,552 | 3.3% |
| < 20 tests/month | 615 | 74,21,362 | 67,960 | 0.9% |
| Total DMCs | 1948 | 4,44,72,984 | 12,75,512 | 2.9% |

**Drug resistant tuberculosis**

During 2022, 95650 patients were notified. Out of which, 65% (62162) of them are microbiologically confirmed TB patients. Among those tested, 55737 (90%) knew their rifampicin resistant status. Around 3% (1680) of them were diagnosed as MDR cases. Among those diagnosed, 1559 (92%) were started on treatment.

**Case finding at community level**

The TN govt under the aegis of the Hon'ble CM has placed a total of 42 Mobile Diagnostic Units (MDUs) in the districts to provide TB screening in identified areas such as hard to reach areas/ villages, Tribal areas, key population, migrant areas, workplace/ factories/ industries etc. The Mobile diagnostic Units are equipped with Chest X-ray machines with AI (Artificial intelligence) in 14 machines.

**Treatment outcomes**

There has been no change in the treatment success rate among DSTB over the last four years.

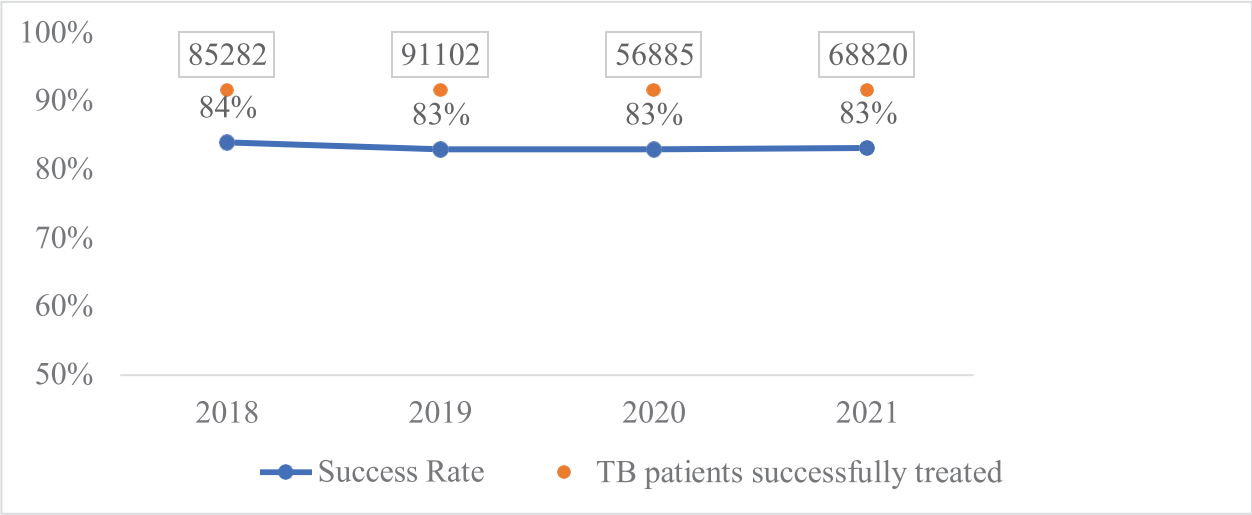



**Fig. 9: Trend in treatment success rate among DSTB**

**Treatment outcome among DSTB patients in 2021**

Around 83% of DSTB patients who were initiated treatment in 2021 successfully completed their treatment. It is unknown what proportion of these patients died but were misclassified as lost to follow-up.

**Table 9: Treatment outcome among DSTB patients**

| Variable | Number (%) |
|---|---|
| DSTB Notified patients | 82683 |
| Successfully treated (Success rate) | 68820 (83.2%) |
| Died (Death rate) | 5528 (6.7%) |
| Loss to follow up | 2307 (2.8%) |
| Treatment Failure | 464 (0.6%) |
| Treatment regimen changed | 1639 (2.0%) |
| NA | 4325 (5.2%) |

**Treatment outcome among priority groups in 2021**

Out of notified Paediatric TB cases, 89.9% of them were successfully treated. Even though the success rate is high among children, death rate is also alarming on the other side (1.9%). The success rate among TB-HIV and TB-Diabetes is 72.3% and 85% respectively.

**Table 10: Treatment outcome among priority groups**

| Variable | Paediatric TB | TB-HIV | TB-Diabetes |
|---|---|---|---|
| DSTB Notified patients | 2724 | 2902 | 21160 |
| Successfully treated (Success rate) | 2449 (89.9%) | 2099 (72.3%) | 17977 (85.0%) |
| Died (Death rate) | 53 (1.9%) | 453 (15.6%) | 1478 (7.0%) |
| Loss to follow up | 47 (1.7%) | 118 (4.1%) | 540 (2.6%) |
| Treatment Failure | 6 (0.2%) | 18 (0.6%) | 123 (0.6%) |
| Treatment regimen changed | 14 (0.5%) | 48 (1.7%) | 554 (2.6%) |
| NA | 155 (5.7%) | 166 (5.7%) | 488 (2.3%) |

**TB preventive therapy**

TB preventive therapy has been scaled up in all Household contacts in 12 districts. Amongst the 12 districts, 5 districts have adopted "Treat Only Policy" i.e. all Household contacts shall be offered TPT after ruling out active TB.

In 7 districts, all Household contacts above 5 years shall be offered TB infection tests (IGRA – Tiruvallur, Tiruvannamalai, Kanyakumari, Pudukkottai & Cy-TB – Kanchipuram, Madurai &Thoothukudi).

The State has purchased 3HP to provide TPT to Household contacts of microbiologically confirmed Pulmonary TB patients in all the districts.

| **TPT Policy** | **Districts** |
|---|---|
| Treat only Policy | Chennai |
| Test & treat policy | Kanchipuram, Tiruvallur, Tiruvannamalai, Kanyakumari, Pudukkottai, Madurai & Thoothukudi |

**TB and comorbidities**

In 2022, approximately 96% (91927) TB patients with a known HIV status were recorded. Of those with TB-HIV comorbidity, 2774 (90%) of them were started on ART.

Among the TB patients who were notified, 96% (92866) of them were aware of their DM status in 2022. Of those with TB-diabetes, 94% (22399) of them were started on Anti-Diabetic Therapy.

Around 15% of notified TB patients were using any form of Tobacco and 18% of notified individuals were identified as alcoholics in 2022. Of those, 23% of them were linked to tobacco cessation and alcohol de-addiction services.

# Developing the State strategic plan

The State Strategic Plan for Ending TB in TN – 2025 is a regional adaptation of Sustainable Development Goals by 2030, Global End TB Strategy by 2035 and the National Strategic Plan for TB Elimination 2020 – 2025 and is in line with the National Health Policy 2017.

### Vision, goals, and targets of State strategic plan

The strategy proposes bold strategies with commensurate resources to rapidly decline TB incidence and mortality in Tamil Nadu by 2025 to achieve the Sustainable Development Goals on its march towards attaining the vision of a TB-free Tamil Nadu.

**Vision:** TB-Free Tamil Nadu with zero deaths, disease, and poverty due to TB

**Table 11: State strategic goal**

| Objectives | Baseline | Target | | |
|---|---|---|---|---|
| | 2015 | 2020 | 2023 | 2025 |
| *To reduce estimated TB Incidence rate (per 100,000 population) | 191 | 125 | 68 | 39 |
| To reduce estimated mortality due to TB (per 100,000 population) | 32 | 15 | 6 | 3 |
| To achieve zero catastrophic cost for affected families due to TB | 35% | 0% | 0% | 0% |

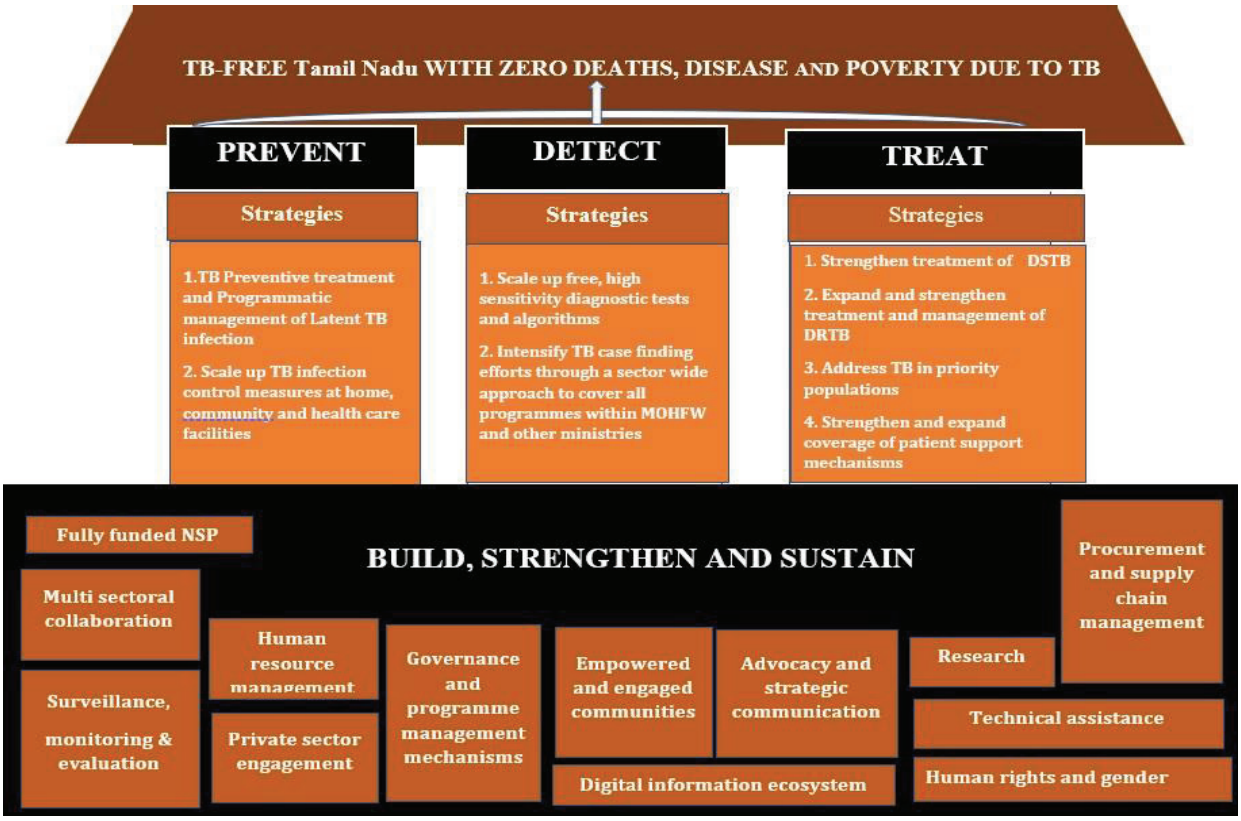
*Baseline incidence of Tamil Nadu (2015) was estimated by Central TB Division; Other two objectives retained from National Strategic Plan for TB Elimination 2020-2025[15]

**Objectives:** The objectives are translated into four pillars (BUILD – PREVENT – DETECT – TREAT) which encompasses all that is required to achieve the goals of state strategic plan. The schematic diagram below represents the foundational pillar of BUILD with its cross-cutting components at the bottom on which rests, the core TB care activities represented by the pillars of PREVENT, DETECT and TREAT.

The performance measures are a detailed account of the indicators for each of the pillar and strategic area of the state strategy to eliminate TB. (Annexure I) Measuring, monitoring, and evaluating programmatic achievements against these indicators is central to the success of the NTEP.

[15] National Strategic Plan to Eliminate TB in India 2020-2025 (draft). Available at: https://tbcindia.gov.in/index1.php?lang=1&level=2&sublinkid=5507&lid=3528.

**Fig. 10: Pillars and strategies of the state specific strategy to eliminate TB**




**Approaches to end TB**

State committed to end TB by various approaches since the inception of Tuberculosis program. The following approaches ensure that all TB patients get free diagnostic and treatment services without facing any financial hardships under B-P-D-T pillars.

- **Primary health care (PHC) approach**

  PHC addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, social health and wellbeing. It provides whole-person care for health needs throughout the lifespan, not just for a set of specific diseases. Primary health care ensures people receive quality comprehensive care - ranging from promotion and prevention to treatment, rehabilitation, and palliative care - as close as feasible to people's everyday environment.

- **Integrated patient centric approach**

  Focuses on early detection, treatment and prevention for all TB patients including children.

  It includes collaborative TB/ HIV activities and management of comorbidities.

- **Bold policies and supportive systems**

Strengthens health and social sector policies and systems to prevent and end TB. Supports implementation of universal health coverage, social protection, and strengthened regulatory frameworks. Addresses the social determinants of TB and tackles TB among vulnerable groups such as the very poor, people living with HIV, migrants, refugees, and prisoners.

- **Universal access to healthcare approach**

  To ensure physical accessibility, financial affordability, and socio-cultural acceptability of TB care services, for universal access to healthcare for all people. This is a step towards universal coverage of healthcare.

- **Intensified Research and Innovation**

  Pursues operational research for the design, implementation, and scaling-up of innovations.

- **Health system strengthening and accountability**

  The workforce and the health infrastructure will be prepared for the future, that is fast unfolding. Financial support, political commitment and holistic health system approach with utmost accountability are the key components.

- **Fighting against stigma and discrimination against TB**

  Patients have the right to be free from stigma and discriminatory behaviour in all settings.

- **ICT based systems in TB care**

  Technology affords healthcare to be more collaborative, data driven and accountable. Incorporating artificial intelligence in the current digital technologies being used in TB care can help in transforming delivery of TB care services.

# 1. Build

**Background**

It envisages Build, strengthen and sustain enabling policies, empowered institutions, multi-sectoral collaborations, engaged communities and human resources with enhanced capacities to create a supportive ecosystem which accelerates PREVENT – DETECT – TREAT pillars.

**Progress so far**

- In 2014, there was one Senior Treatment Supervisor (STS) per 5 lakh population; since 2019, there is one STS per block.
- Training contents and methodology has been updated and new tools (e.g., e-training modules) have been developed.
- Microscopy services have been expanded to Peripheral Health Institutes based on availability of infrastructure and human resources, and not restricted to 1 DMC per 100,000 population norms.
- Expansion of rapid molecular technology (CBNAAT) and introduction of newer technology (TruNaat).
- Universal Drug Susceptibility Testing – Rifampicin resistance testing and FQ resistance for all TB patients.
- Newer drugs (Bedaquiline and Delamanid) containing regimen for treatment of drug resistant TB
- FAST model for private sector engagement
- Mandatory TB notification has been strengthened through Gazette notification
- Reinforcement of provisions of Schedule H1, of the Drugs and Cosmetic Act to involve chemist for notification
- NPY, Treatment supporter, Private provider and informant incentives have been introduced
- State and District level TB Forums have been formed to provide platform for TB champions to execute their role
- MoU with other state departments as a part of multi sectoral engagement
- Subnational certification -7 districts were awarded bronze medal and 1 district was awarded silver medal.
- Corporate TB pledge.
- Screening for TB in mega health camp.
- State has strong in-built monitoring and evaluation program since the inception of program (State Internal Evaluation – SIE) with partners collaboration (State Training and Demonstration Centre and WHO Consultants)

**Challenges**

1. No system in place to monitor out-of-pocket and catastrophic health expenditures for TB.
2. Central/state health insurance schemes to ensure free and accessible outpatient and inpatient treatment for TB patients
3. Weak capacity for implementation of public health functions like contact investigation and provision of TPT in private sector
4. Quality of public health action in private health care sector are pertinent challenges to address.
5. TB forums had been constituted in all the districts as envisaged, however the effectiveness remains limited.
6. There is sub-optimal coordination between the TB ACSM and other program IEC management to establish a cohesive and integrated management structure to coordinate programme activities
7. AIC remains an issue in health care facilities despite the completion of several pilots and the roll out of national guidelines. The challenge is the intrinsic managerial nature of AIC interventions and the lack of suitable tools for scale-up.
8. Lack of use of ICT platform for capturing real time information on stock levels, expiry of batches and potential stock out situations resulting in increased operational strain on supply chain systems and impacts the forecasting and procurement planning given delays in reporting from the field.
9. Among many TB stakeholders, but particularly TB survivors and civil society, there is a need for further sensitization and capacity building pertaining to TB, rights and gender

**Activities**

| **1.1 Human resource management** |
|---|
| Training of all cadre staffs of healthcare providers both in the public and private sector on NTEP updates– training curriculum and calendar to be implemented |
| E-learning modules/E-learning platform to deliver the content in local language to the targeted staff |
| Implementation of state specific operational guidelines for TB services at HWCs |
| **1.2 Governance and management of NTEP** |
| Formation of state, district, block TB elimination board (Annexure II) |
| Strengthening of the schedule H1 register and monitoring (comparison) of drug sale/consumption data with notification rate |

| 1.3 Private sector engagement |
|---|
| Establish a nodal centre / focal point within the hospital set up which coordinates with the programme for notification, provision of diagnostic and treatment services and undertake public health action themselves or by programme if requested from private provider<br>FAST model to be implemented in selected facilities. (Annexure III) |
| Auditing system for verification of treatment outcomes in private system |
| Establishment of many hub and spoke centres - the mechanism of specimen collection and transport will be expanded to patients in the private sector. |
| Ensure the availability of public drugs in local private pharmacies, or Jan-Aushadhi for the patients notified in private sector |
| Patient feedback systems, periodic prescription audits, drug sales surveys, chemist surveillance through Schedule H1 and laboratory surveillance including private laboratories |
| Sensitization of provisions of Sections 269 and 270 the Indian Penal Code (IPC) for failure to take the mandated steps of TB Notification (Annexure IV) |
| **1.4 Multisectoral engagement and accountability** |
| AYUSH providers will be provided with informant incentives for referring presumptive TB cases and detection of TB patients. They are also provided with treatment supporter incentives. |
| Training and Teaching about NTEP – Undergraduates, Postgraduates, Interns |
| Monitoring of core committee meetings conducted in medical colleges |
| **1.5 Engaged and empowered communities** |
| Build capacity of TB survivors and TB affected communities in areas of TB treatment literacy, advocacy, counselling, health financing, community-led monitoring and human rights. |
| Recognition and felicitation of TB Champions for their contribution to the TB response. |
| Expansion of community-based services for prevention and management of TB through Ayushman Bharat Health and Wellness Centres |
| Involving existing community structures (e.g.: VHSNC, MAS, Self Help Groups, Trade/employment-based associations, Faith Based Organizations, Village Level Task Forces in North-eastern States, etc.) at appropriate levels for awareness generation, early diagnosis, social support, etc |
| Working with Ministries for leveraging MP/MLA development funds for TB control and rehabilitation of TB patients. |
| Facilitation of formation of Patient Support Groups at Community levels |

| |
|---|
| Participatory operational research in collaboration with academia/research entities/CSOs to understand strategies required to improve the reach and sustainability of TB interventions in the communities, especially among key populations. |
| Participatory mapping of key stake holders including AYUSH providers, informal providers, chemists, etc. at village level by HWC. |
| Provide financial incentives to community level TB volunteers (including ASHA´s, WHV's) who will be given the task to retrieve patients who miss treatment and long term follow-up. |
| Special interventions for vulnerable groups like sex workers, street children, migrant labour, etc. in collaboration with agencies which are working with the said populations directly |
| Popularise usage of TB Arogya Saathi App- this is for Citizens as well as TB patient |
| **1.6 Advocacy, Strategic Communications, Social mobilization** |
| TB free panchayat initiatives by involving Grama Sabha meetings |
| **1.7 Surveillance, monitoring and supervision** |
| GIS mapping of every patient, and identifying hot spots for a quick and adequate response will be added |
| Geo mapping of areas with high risk for TB and those with poor treatment outcomes will also be a part of the routine surveillance |
| Create algorithms for the detection of local outbreaks and clusters. |
| Enhance or implement TB surveillance in migrants, prisoners, and other priority populations according to the particular situation in the district/state. |
| Monthly review of DTOs at state level for monitoring as well as capacity building. In addition to this, State Internal Evaluation (SIE) to be used as an opportunity to monitor the program implementation at district level. |
| External evaluation / social audit of select TB patients eligible for incentives |
| Strengthening of TBDSR with objective to improve quality of care. |

| 1.8 Research |
| --- |
| Research under various thematic areas to be undertaken with the collaboration of Indian Council of Medical Research Institutes in the state (E.g., National Institute of Epidemiology and National Institute for Research in Tuberculosis) |
| **1.9 Strengthening procurement and supply chain** |
| Monitoring of logistics, stocks, and timely forecasting |
| Training on Procurement and Drug Logistics Management for all the personnel at state and district level involved in LSCM |
| Mechanism for thorough Upkeep & Uptime maintenance of Mobile Medical Vans & Equipment mounted on the van and maintaining Human Resource position to keep the Van in running state |
| **1.10 Digital information ecosystem for TB care** |
| Ensure that the users can use the Nikshay eco-systems and its modules optimally and meet the objectives for which it was built. Training/Re-training/Sensitization of NIKSHAY modules periodically. |
| **1.11 Addressing human rights and gender related barriers** |
| Scale up services and interventions that reduce stigma and gender-related barriers and vulnerabilities to TB infection/disease |
| Involve community influencers of all genders to improve cough hygiene in the community |
| Engage TB survivors, panchayat, teacher and other community gatekeepers to do community advocacy as “positive” speakers on stigma |
| **1.12 TB care in case of public health emergencies** |
| Strengthen supply chain monitoring through NIKSHAY AUSHADHI and ensure uninterrupted drug supplies, including adequate buffer stock |
| Logistic and consumables: Provision of sufficient lab consumables, sputum cups, reagents, falcon tubes, recording and reporting formats, CBNAAT cartridges, TruNaat chips, PPE kits and soap/sanitizer provision to NTEP staff / partner NGO staff |

NTEP field workers will need complete orientation on basic program activities (SOP, IPC, TB case finding, TB case holding, all 4 DBT scheme, tele-consultation, use of TB call centre by general public and patients)

# 2. Prevent TB

**Background**

Focus on TB disease alone has a limited impact on the reduction in future incidence without the additive effect of TB preventive treatment for people with latent TB infection (LTBI). TB Preventive Treatment (TPT) services complement screening for active TB, infection control, prevention and care of HIV and other co-morbidities and health risks, access to universal health care, social protection, and poverty alleviation.

**Progress so far**

- In 7 districts, all Household contacts above 5 years shall be offered TB infection tests (IGRA – Tiruvallur, Tiruvannamalai, Kanyakumari, Pudukkottai & Cy-TB – Kanchipuram, Madurai & Thoothukudi).
- The State has purchased 3HP to be given to Household contacts of microbiologically confirmed Pulmonary TB patients in all the districts.

**Challenges**

1. Contact investigation suboptimal for TB patients detected and notified from private sector
2. Lack of implementation of AIC interventions at majority of health facilities (Public as well as Private)
3. Lack of systematic, uniform mapping of key vulnerable population

**Activities**

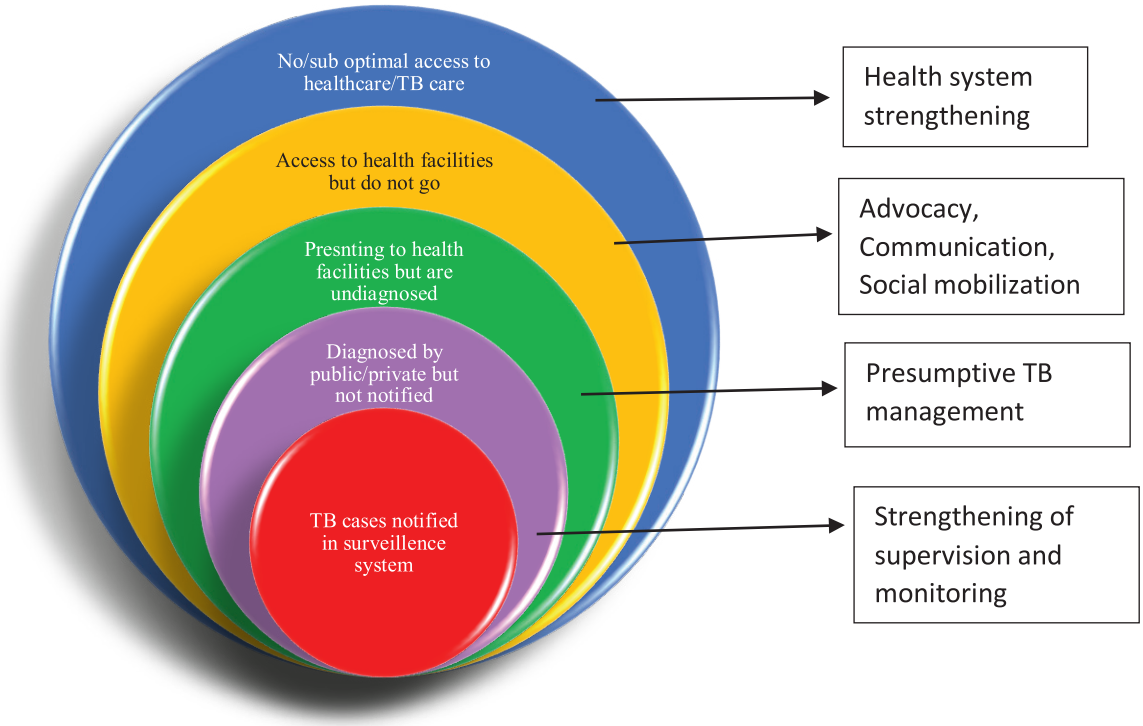
| **2.1 TPT and programmatic management of TPT** |
|---|
| Integrate TB preventive services in all ACF efforts at health facilities, in communities and among vulnerable populations and public private initiatives |
| Strengthen household contact screening and evaluation by developing and providing a package of financial incentives for service providers (public and private) |
| Universal TPT coverage for all PLHIV in care and household contacts of notified TB patients |
| Establish mechanisms for TPT adherence support and adverse events monitoring to ensure prompt action and management of the rare adverse events |
| **2.2 Airborne infection control** |
| Leverage ongoing initiatives e.g., scale up of health and wellness centres under the Ayushman Bharat scheme, initiatives by the NHM such as Kayakalp (promote inclusion of AIC as a criterion for awards) |

| |
|---|
| Promote AIC awareness in public transport. |
| Provide updated implementation guide and standard operating procedures (SoPs) e.g., patient flow, engineering measures at health facilities |
| **2.3 Tuberculosis Vaccination** |
| Vaccination is an important strategy to eliminate any kind of communicable diseases including Tuberculosis. Numerous studies are being conducted worldwide, and the state will implement a vaccination strategy based on the evidence from these research studies. |

# 3. Detect TB

**Background**

As state intensifies its efforts to improve diagnosis and treatment and close the incidence–notification gap, the proportion of notified cases, that are bacteriologically confirmed, needs to be monitored and improved to ensure that people are correctly diagnosed and started on the most effective treatment regimen as early as possible. Closing the incidence-treatment enrolment gap for MDR/RR-TB requires understanding the various levels at which cases are missed. The following 'Onion peel' model shows the operational solutions to overcome barriers at three level: among people who are not diagnosed, among people who are diagnosed but not notified and among those people who are notified but not adhered to all public health actions.




**Progress so far**

- All diagnostic tests are available free of direct cost at all TB service delivery points in public sector.
- Sputum collection and transport systems have been developed.
- To ensure complete diagnostic coverage, laboratory network has been scaled up from 2 to 5(two CDST laboratories have been certified recently: Trichy and Coimbatore)
- All the diagnosed TB patients, including non-responders to treatment, are now offered Universal Drug susceptibility testing

- Presumptive TB examination offered, diagnostic facilities under NTEP in TN and case finding activities among vulnerable population.

**Challenges**

1. Diagnostic coverage for patients availing services from the private sector remains a challenge
2. NAAT / other modern diagnostic facilities in the private sector yet to be completely harnessed by the program.
3. Non availability and / or underutilization of X-ray facilities at periphery adversely affects screening as well as diagnosis.
4. Pre-Lab TAT and Turnaround time from TB/DRTB diagnosis to test result reporting is delayed

**Activities**

| **3.1 Laboratory and diagnostic systems** |
|---|
| Rapid / prioritized transition of TB diagnosis from smear microscopy to molecular testing using NAAT right up to the Block level |
| Enable access to digital X-Ray for screening presumptive TB cases at the PHI level. Leverage Artificial Intelligence based tools to increase access to radiology services |
| EQA to cover all NAAT technologies |
| Capacity building of the programme/lab staff for in house equipment maintenance activities |
| Conduct training to ensure capacity and competency for collection of quality sputum specimens from presumptive pulmonary TB and presumptive EP-TB |
| **3.2 TB case finding** |
| Strengthen implementation of Integrated diagnostic algorithm to detect all forms of TB (latent, active, and DR-TB) |
| Integration of TB diagnosis within the existing health system for extensive outreach for public awareness, TB service demand generation, early detection, and referral to nearest TB service delivery point |
| Ensure that reverse contact tracing of paediatric TB patients to identify the index case is done for all paediatric TB patients |
| Repeat contact tracing at end of treatment and during follow-up to detect newly developed cases and document treatment outcome |

# 4. Treat TB

**Background**

Universal access to free, standard treatment services for all TB patients in the country encompass an ambit of services in and around each patient's care cascade. Strengthening of these patients centred treatment services in NTEP with enhanced capacity to rapidly accommodate new drugs and treatment modalities will be the cornerstone of the NSP 2020-25.

**Progress so far**

- State has already started providing the latest all oral regimens for DRTB patients. State has decentralized the molecular test for DRTB detection and subsequent linkage for treatment initiation at district level. Also, state has provided FL-LPA and SL-LPA facilities for additional drug resistance detection for all notified TB patients.
- Newer drugs like Bedaquiline and Delamanid are also introduced for drug resistant TB patients.
- A smart DR-TB Medication Event Reminder Monitor (MERM) which organizes a patient's medication, provides dosing instructions, and monitors medication adherence has been developed and preliminarily evaluated by India's NIRT Chennai for patient and provider acceptability.
- The **nodal person** for TB-comorbidities has been identified. To further strengthen the TB-HIV collaboration, District TB officers have also been nominated as District AIDS control officers.
- **Centres of excellence** for adult DRTB have been established at GHTM, Tambaram as model centre for care, support and treatment, support the programme in capacity building activities and TB elimination activities.
- **Centres of excellence** for Paediatric TB to be established at ICH as model centres for care, support and capacity building activities.
- Nutritional support being provided to all TB patients through financial support of 500 INR per month for all notified TB patient.
- TN-KET (**Tamil Nadu *Kasanoi Erappila Thittam*)** was implemented across 30 NTEP districts with aim to implement systematic triaging for severe illness at diagnosis for all adult TB patients.

**Challenges**

1. Standards of Tuberculosis Care in India to be scaled up.
2. Quality issues such as delay in obtaining laboratory results and consequent delay in initiation of treatment.
3. Sub-optimal implementation of ADR management and aDSM.
4. Uptake of Digital Adherence Technologies (DAT) for adherence monitoring is insufficient and is not being uniformly implemented.
5. Gaps in the management of TB-comorbidity care cascade and suboptimal documentation of TB-comorbidity services in private sector
6. Access to benefits for migrants and tribals is a challenge

**Activities**

| **4.1 Treatment of DSTB** |
|---|
| Drug safety needs to be monitored. |
| Option of regular and long-term post-treatment follow-up of TB patients to identify relapse early, detection and management of post TB sequels |
| Address issues of migration and patient transfer on real-time basis utilizing the NIKSHAY platform ensuring linkage for un-interrupted treatment for the patients |
| aDSM toolkit to be implemented to improve ADR management |
| Utilization of e-platforms such as ECHO, Swasth e Gurukul portal for conducting e-trainings to augment the efforts of modular trainings |
| **4.2 Treatment of DRTB** |
| Strengthen the network of specimen collection centres for paediatric TB and EPTB. |
| Development of patient selection protocol and escalation protocol for appropriate referral of patients; capacity building of field staff and medical officer |
| Provide nutritional support in the post treatment period |
| **4.3 Addressing TB in priority populations** |

**Paediatric TB:**

- Determine burden of Paediatric TB through appropriate methodologies including inventory studies etc.
- Expansion of Systematic screening at entry points - NRC, MCH/school health programmes
- Specimen collection methods in children needs to be linked to the identified centres
- Enhance surveillance through monitoring of age-disaggregated numbers, strengthening contact/reverse contact tracing, ensuring linkage of child and family index case
- Strengthen collaboration with Child health programme and Rashtriya Bal Suraksha Karyakarm (RBSK) Programme to reach the paediatric population, spread awareness regarding TB

Engage with Rashtriya Kishor Swasthya Karyakram - RKSK (Adolescent Health Programme) to address TB burden among adolescent population

**Nutrition and TB:**

- Strengthen nutritional assessment and counselling of TB patients
- Scale up community-based nutrition interventions and expand linkage to social support schemes/vocational training
- Intensify the linkage between NTEP and Nutrition Rehabilitation centres for TB screening among malnourished

**TB and alcoholism , TB and tobacco consumption:**

- Ensure adequate linkage to de-addiction services.
- Effective involvement of NTCP in comorbidity collaborative mechanism established at all levels.
- Leverage Tobacco Quit line and m-cessation initiatives of NTCP to link patients for appropriate counselling and cessation.
- Expand scope of linkage to tobacco cessation services to cover Dental colleges/clinics
- Undertake research on interrelationships of Smokeless Tobacco usage and Tuberculosis

**TB and Diabetes:**

Expand scope and improve effectiveness of joint DM and TB screening campaigns, including Makkalai Thedi Maruthuvam (MTM)

**TB and HIV/AIDS:**

- Ensure access of all PLHIV to rapid molecular diagnostics with prioritization
- Saturation of PLHIV with TB prevention therapy and rapid adoption of newer shorter regimens based on national/state guidelines.

**TB and pregnancy:**

- Develop collaborative mechanism between NTEP and MCH for addressing TB among pregnant women.
- Ensure screening and detection of active TB cases among pregnant and postpartum women.
- Providing appropriate counselling to address nutrition and lifestyle aspects.
- Augment treatment of TB among pregnant women
- Ensure screening for active TB, vaccination, and chemoprophylaxis/TB treatment to new born of pregnant mothers affected by active TB.
- Promote research and training in issues related to TB in pregnancy.
- Engage with RMNCHA+ to effectively implement the collaborative framework

**TB among prisoners:**

- Strengthen screening of new inmates, periodic screening of prisoners and penitentiary services staff to detect active TB and HIV in a timely manner.
- Ensure continuity of care for released prisoners who are on treatment for TB and for individuals who are on treatment before entering the prisons.
- Provide psychological counselling and support for prisoners to improve TB treatment adherence

**TB among geriatric population:**

- Institute effective screening for TB in Old age homes and other settings and ensuring continuity of care
- Engage with Geriatric Society of India/Indian Academy of Geriatrics/Association of Gerontology in increasing awareness on TB burden and information on availability of services
- Partner with NGOs already working with the geriatric population

| |
|---|
| **Mental health and TB:**<br>• Incorporate mental health counselling component for all TB patients as part of NHM programmes.<br>• Screening of all TB patients for mental health issues and linkage to services<br>• Building capacity of health personnel/counsellors at all levels in identifying TB among patients with mental disorders<br>• Leverage wellness component of Health and Wellness centres to provide support<br>• Establish linkage with National Mental Health programme for linkage to mental health support services among TB patients |
| **TB and Silicosis:**<br>• Conduct periodic screening of workers in high-risk settings (Silicosis) for Tuberculosis<br>• Capacity building of health personnel in high-risk areas for ensuring early diagnosis and detection of silicosis<br>• Appropriate follow-up and counselling to be provided to patients affected by silicosis<br>• Ensuring appropriate dust control measures in workplace and payment of compensation to all those affected by Silicosis |
| Mobilize political will and involvement at local levels through involvement of local elected representatives, and PRIs |
| Involve primary school teachers in disseminating IEC material |
| Advocate for 'TB free slums' initiative on the lines of TB free blocks and districts |
| **TB among migrants:**<br>• Implement essential TB service package for migrant population along with other health service delivery.<br>• Conduct IEC activities at places of stay and work for migrants. |
| **4.4 Patient support systems** |
| Expand the coverage of treatment adherence support mechanisms for all TB patients including involvement of community health volunteers to monitor treatment adherence, nutritional counselling and contact tracing |
| Assess disability at the end of treatment and link those identified with disabilities to rehabilitation schemes |
| Implement triage tool for severity assessment to identify severely ill patients and support their access to care. |

# Annexure: I

**Key indicators for the priority programmatic areas and the targets**

PREVENT DETECT TREAT BUILD

| Sl. no | Indicator |
|---|---|
| 1. | Proportion of eligible beneficiaries to be initiated on TB Preventive therapy |
| 2. | Proportion of TPT beneficiaries completed treatment |
| 3. | Number of beneficiaries offered Chest X-ray for TB screening |
| 4. | Presumptive TB examination rate |
| 5. | Proportion of presumptive TB cases tested with molecular technology |
| 6. | Total TB patients notified |
| 7. | Public sector (notification) |
| 8. | Private sector (notifications) |
| 9. | Proportion of microbiologically confirmed TB patients (public and private) |
| 10. | Proportion of notified TB cases with known HIV status |
| 11. | Number of priority population screened for TB through ACF annually |
| 12. | Proportion of microbiologically confirmed TB patients offered UDST |
| 13. | No of MDR/RR TB patients notified |
| 14. | Treatment success rate for DS TB |
| 15. | Treatment success rate for RR TB |
| 16. | Proportion of notified TB patients receiving financial support through DBT for NPY |
| 17. | TB case Death rate |
| 18. | Proportion of deaths among TB-HIV |
| 19. | Proportion of deaths among TB-DM |
| 20. | Number of identified facilities covered under FAST |
| 21. | No. of TB champions trained and engaged in NTEP |

# Annexure: II

**Formation of TB elimination board**

**State TB Elimination Board**

**Concept:**

State TB Elimination Board is the apex body to take policy decisions on strategy, operations, resources, and establish coordination with different ministries and monitors timelines for Ending TB. It is the direct demonstration of state government's stewardship for ending TB in Tamil Nadu. It monitors implementation of TB Free Tamil Nadu strategy at all levels and adopts appropriate corrective measures on recognition of shortfalls or gaps.

**Constitution**

1) Chief Patron – Hon'ble Chief Minister
2) Patrons – Hon'ble Minister for Health and Family Welfare
   a. Hon'ble Minister for Urban Development and Municipal Affairs
   b. Hon'ble Minister for Local Self Governments
   c. Hon'ble Minister for Tribal Welfare
   d. Hon'ble Minister for Education
   e. Hon'ble Minister for Women and Child Development and Social Welfare
   f. Hon'ble Minister for Food and Supplies
   g. Hon'ble Minister for Labour
   h. Chief Secretary, Government of Tamil Nadu

3) Chairperson – Additional Chief Secretary/Principal Secretary / Secretary, H&FW Department
4) Vice Chairpersons - Secretary [LSGD/PRI]
Mission Director, National Health Mission
5) Member Secretary – Director of Public Health Services
Member Secretary – Director of Medical and Rural Health Services

6) Convener- State TB Officer

**7) Members:**

a. Director of Medical Education

b. Director of medical services

c. Regional Director CGHS

d. Secretary, Panchayat & Rural Development

e. Director, Indian Systems of Medicines (AYUSH)

f. Director, ICDS

g. Director, Drugs Control

h. Director, ESI

i. Director, Railway Health Services

j. State Official, Pollution Control

k. State Official, TB Association branch, Tamil Nadu

l. Director, STDC

m. Chairperson, STF Tamil Nadu

n. State Secretary, IMA

o. Project Director, TANSACS

p. Additional DHS (TB)

q. Additional DHS (PH)

r. Heads of major NGOs working for TB

s. WHO Consultants [NTEP]

t. Representatives from community

**Terms of Reference:**

The Board meets once in six months. It takes policy decisions on strategy, operations, resources required for ending TB in Tamil Nadu. It takes decisions on appropriate local adaptation of national guidelines for NTEP and seeks resources beyond the budgeted resources in PIP. The board also takes final decisions on procurement of goods and contractual services for ending TB in Tamil Nadu. It guides the government on the recruitment of regular staff to the key positions of TB control and elimination. Notice for the meeting and agenda should be served one week before the meeting by the convener with the approval of Chairperson.

**District TB Elimination Board**

**Concept:**

District TB Elimination Board is the district level apex body to take policy decisions on an adaptation of TB Free Tamil Nadu strategy, operations, resources, and timelines. Since TB epidemiology, population characteristics and access to health care vary across districts, the district TB elimination board Tamil Nadu board will need to customize the state's strategies to suit local situations. The board also monitors implementation of TB Free Tamil Nadu strategy at sub-district levels and adopts appropriate corrective measures on recognition of shortfalls or gaps.

**Constitution:**

A District TB Elimination Board is to be formed with the District Panchayat President, Member of Parliament, members of Legislative Assembly and Mayor as the patrons

1) Chairperson: District Collector
2) Vice-Chairpersons: JD HS, DDHS
3) Convener: District TB Officer

4) Members:
   a. Deputy Director, Panchayat
   b. District Labour Officer
   c. Chairman, Medical College Core Committee
   d. District Nodal Officer, WCD or equivalent
   e. District Nodal Officer, Tribal Welfare Department or equivalent
   f. Secretary, District Panchayat
   g. Secretary [Corporation]
   h. District Siddha Medical Officer
   i. District Surveillance Officer
   j. District Programme Manager [HIV]
   k. DTF Chairman, IMA
   l. DD immunization
   m. District drug inspector
   n. TB Specialist
   o. Public health expert
   p. WHO Consultant [NTEP]
   q. District Coordinator of any partner organization working on TB
   r. TB Champion / Survivor

**Terms of reference:**

The Board meets once in three months. It takes decisions on appropriate local adaptation of national guidelines for National TB Elimination Program [NTEP], and state End TB strategies and seeks resources beyond the budgeted resources in PIP. The board also takes final decisions on procurement of goods and contractual services for ending TB. It guides the district administration and on the recruitment of regular staff to the key positions of TB control and elimination. Meeting should be conducted once every 3 months. Notice for the meeting and agenda should be served one week before the meeting by the convener with the approval of Chairperson.

**Formation of TB Elimination board at block level**

**Concept:**

The Block TB Elimination Task Force plans to execute, supervises, monitors reviews activities and reports to District TB elimination TB Task Force. It prepares End TB activity plan for the block in consultation with the gram panchayat.

**Constitution:**

1) Patrons: president and Members of Block Panchayat
2) Chief Executive: Block PHC Medical Officer
3) Secretary: Health Supervisor of the Block PHC/CHC
4) Executive Members:

a. All medical Officers of the Block PHC

b. Lady Health Supervisor

c. Health Inspector of block PHC

d. STS, STLS, HVs of corresponding TB unit

e. NGO members

f. Members from community

**Terms of Reference:**

It plans, executes, monitors, reviews activities and reports to District TB elimination board. It prepares the block End TB activity plan every year. Each gram panchayat is assigned to a subgroup of executive members for supervision and monitoring. The subgroup visits the assigned panchayat including the peripheral health institutions, microscopy centers, target population, patient houses and gram panchayat every month and reports to the District TB elimination board at the end of the month.

The Chief Executive compiles these reports and submits to the district TB Elimination Board along with the report on block level activities.

# Annexure: III

**Role of private sector in TB Elimination: FAST Centres: Unite to End -TB**

India accounts for one-fourth of the global tuberculosis (TB) burden. More than two million people are diagnosed with the disease every year. TB kills more adults in India than any other infectious disease. As per the Global TB Report 2015, India bears the highest burden of TB and drug-resistant TB (DR-TB), and the second highest number of cases of TB-HIV. Almost half of all patients with TB symptoms seek care in the private sector.

Here, the National Prevalence Survey can offer crucial insights because it offers disaggregated data about the actual burden of TB in India and health-seeking behaviours in the public and private sectors. This information can help form a tailored approach for TB elimination that can suit different state geographies within the country. At the same time, unstandardized care in the private sector could lead to treatment delays, contributing to the emergence of drug-resistant TB and increased mortality; a 2019 study estimated that a symptomatic patient approached multiple private healthcare providers, taking up to 65 days before an accurate diagnosis. To help eliminate TB, the Government of India (GoI) implemented the National Strategic Plan (NSP) for 2017 to 2025 to introduce interventions to expand and improve diagnosis, treatment and care for patients with TB. It intends to extend the umbrella of high-quality TB care and control to include those treated in the private sector. The NSP highlights the need for private sector engagement as an important component to eliminate TB. Various efforts have been invested in including the private sector in efforts to eliminate TB.

In 2001, the Central TB Division (CTD) formulated the first guidelines on partnership for engagement of non-governmental organizations (NGOs) and revised them in 2008 and 2014. Many efforts have been launched to engage the private sector effectively for TB control in India with varying degrees of success. One highly effective model has been the Private-Provider Interface Agency (PPIA). Implemented in Mumbai in Maharashtra, Patna in Bihar and Mehsana in Gujarat, PPIAs worked with a network of private doctors, chemists, laboratories, and hospitals to ensure that TB diagnosis and treatment practices adhere to the prescribed 'Standards of TB Care' in India. As a result, between 2014 and 2018, in Mumbai and Patna, there was a 351% and 532% increase in TB case notifications from the private sector. This was vital because actual reporting of cases result in greater understanding of the TB burden on the ground. Soon, the government expanded this PPP model to develop what we now know as the Patient-Provider Support Agency (PPSA) model. Various strategies were developed for improving the case finding in private sector.

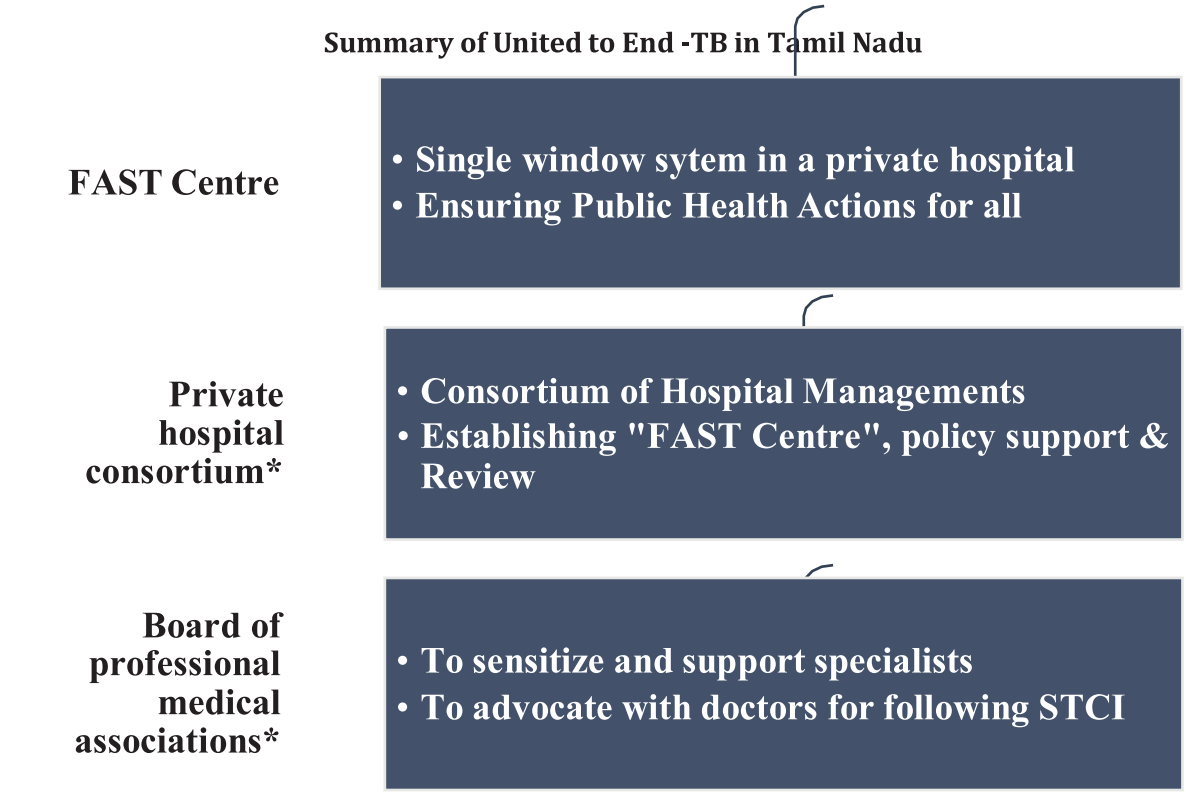
They were gazette notification issued in 2018 for mandatory notification of TB, implementation of Schedule H1 drugs improved notification from chemists and introduction of PPSA. Since 1998, the Resource Group for Education and Advocacy for Community Health (REACH) has worked to increase

patient access to the public health services of India's National Tuberculosis Elimination Program (NTEP). REACH encourages private health care providers to refer their patients to one of REACH's 4 public-private mix centres in Chennai, where REACH ensures continuity of care between the private and public sectors through project-implemented counselling, education, food support, and directly observed treatment. Collaboration between the Indian National Tuberculosis Elimination Programme and private practitioners in India improved the case notification of tuberculosis while maintaining good treatment outcomes. As per the India TB report the notification from the private sector has increased from 21% to 31% between the years 2017 to 2021.

**FAST Centres: Unite to End -TB**

Unite to End -TB in Tamil Nadu is envisioned as collective efforts by public and private sector for the benefit of the society. It has three major interventions,

- "FAST (Find, Assess, Support and Treat) centres" –is being organized as a single window for notification of patients diagnosed in OPD/IP from all departments of private facility, linkage for public health actions and treatment adherence support.
- To support the TB elimination activities, consortium of private hospitals is planned to be formed at district levels.
- To sensitize and support specialist practitioners for TB notification, a coalition of professional medical associations is planned to be formed at district level.




**TOR will be refined in subsequent meetings with the stakeholders*

Some of the prominent professional medical associations across the state and districts are (Tamil Nadu Chapters/Regional/South Zonal):

1. IMA - Indian Medical Association
2. IAP - Indian Academy of Pediatrics
3. FOGSI -Federation of Obstetric and Gynaecological Societies of India
4. RSSDI - Research Society of Studies in Diabetes in India
5. District/State Respiratory Societies
6. IRIA - Indian Radiological and Imaging Association.
7. Others

**Functions of Fast center**

1. To act as a single window mechanism for all TB related services in the hospital

2. Notify in NIKSHAY all TB cases diagnosed in the hospital for notification of patients diagnosed in OPD/IP from all departments of private facility

3. To guide, support and arrange for
    a) Universal Drug Susceptibility Testing.
    b) NTEP drugs if required
    c) Direct Benefit Transfer of Rs 500 per month for entire duration of treatment
    d) Adherence monitoring system
    e) Offer HIV counselling and testing

4. To educate on TB and counsel the patient and family members on the need for completing treatment

5. To educate the patient and family members on airborne infection control, adverse drug reaction sand smoking cessation.

6. To follow up the patient periodically over phone to motivate the patient to continue treatment, detect any adverse drug reactions, remind about follow-up investigations and scheduled clinical visits.

7. Update details of bank account, UDST, treatment initiation, co-morbidity, and outcome in NIKSHAY.

8. Fast tracking patients with infectious TB as a step to ensure airborne infection control in health facility.

9. Ensuring other public health actions including contact tracing, chemoprophylaxis (TB Preventive Therapy) either directly or linking those patients willing to be followed up by the Government field staff to local primary health care team.

10. Document all activities and submit monthly report to Private Hospital Consortium.

**Steps in establishing "FAST Centres"**

- Nominating a co-ordinator/s within the hospital by the hospital management for co-ordinating FAST Centre (Co-ordinator could preferably be a nurse or PRO).
- Training of the co-ordinator/son STCI, NTEP and NIKSHAY.
- Sensitisation within hospital about FAST centres and its function.
- Hand holding and refresher training for the coordinators.
- Quarterly review of FAST Centre's activity by private hospital consortiums.

**Provision by NTEP to "FAST Centers"**

- Daily Fixed Dose Combination-first line drugs.
- Provide public health actions including contact tracing, chemoprophylaxis, linkages to"Uzhavar Padukappu Thittam", nutritional support and social welfare schemes if requested by co-ordinators of FAST Centres.
- Retrieval of lost to follow up patients if requested by FAST Centre co-ordinators.
- Provide Direct Benefit Transfer Rs500 per month during the treatment to all cases notified from private facility based on guidelines.
- Free HIV testing if requested by FAST Centre Co-ordinator.
- Support for notification and updating in NIKSHAY.
- Training and capacity buildings on STCI, NTEP - updates and NIKSHAY.
- Partnership options (NGO-PP/PPSA agencies) engaging with the programme could be leveraged for necessary support.

**Expected Outcomes**

- Improvement in TB Notification from private sector.
- Improvement in adherence (dosing implementation) and public health actions for patients diagnosed as TB from a private facility.

**Terms of Reference - Unite to End TB in Tamil Nadu Consortium**

**Purpose of Consortium**

Conventionally, public health programs elaborate on private sector engagement and public-private partnerships. Models thus developed were mostly incentive based engagement or business purchase models. Private-private partnerships also were demonstrated where one private partner acts as an

interface with governments. Wise investments in these models have resulted in various degrees of success with wide range of cost-benefits.

**Guiding Principle**: Unite to End TB consortium bases upon the social responsibility of private sector in Ending TB.

**Vision**: TB Free districts

**Mission**:

1. To ensure uniform high Standards of TB diagnosis and treatment to all citizens of Coimbatore and Madurai who seek care in private sector.
2. To ensure all public health services including contact tracing, TB prevention treatment, and treatment adherence support to the patients, support to health care workers of the private health sector in Coimbatore and Madurai and the community at large.

**Members**: All private hospitals in catering to patients of Coimbatore and Madurai district including the partners to NTEP (Nominees of NGO-PP/PPSA agencies).

**Facilitation**: DTO will facilitate the consortium and act as an interface between consortium on one side and State TB Cell, District TB Centre, District Health Administration, Urban Health Mission, Tuberculosis Units, other IMA branches and other medical associations. DTO will do advocacy with institution heads and co-ordinate regular review meetings.

**Role of members**:

1. All the members will ensure that doctors dealing with TB will undergo training in Standards of TB Care in India.
2. All the members will avail free access to daily fixed dose ATT and second-line TB treatment, TB Preventive therapy, and support for treatment adherence.
3. All the members will notify all cases of TB diagnosed at the institution through NIKSHAY web portal.
4. For patients put on private anti TB regimen, the member hospitals will take necessary steps to ensure standards of TB care of India.
5. Members follow an 'after sale care model' where every TB case diagnosed will be notified, followed up regularly at periodic intervals and retrieved back to the hospital with or without the support of public sector if treatment is interrupted.

**Executive Committee:** Chair (District Collector) and Vice Chairs for consortium will be elected by the members for a period of 2 years.

**Review:** Consortium will meet quarterly to review the activities. Review will be conducted at member hospitals on rotation basis.

**Terms of Reference - Coalition of Medical Professional Organizations for TB Elimination**

**Vision**: TB -Free districts

**Mission:** To ensure uniform high standards of TB prevention, diagnosis, treatment and social support, which is accessible, affordable and quality assured, to all individuals who are vulnerable to develop TB or with TB, in Coimbatore and Madurai districts.

**Strategic Objectives**:

- To plan, execute, supervise, monitor and review activities by its member organisations to ensure uniform high standards of TB diagnosis and treatment.
- To advocate for ensuring all public health services including contact tracing, TB prevention, and treatment adherence support to all patients, relatives, health care workers of the state and the community at large.

**Core Values**

- **People centred approach:** Complemented by the concept of people-centred models of care, which focuses on meeting the health needs and expectations of people throughout the life-course. It aims to balance the rights and needs of patients with their responsibilities and capacity as stakeholders in the TB Free Tamil Nadu 2025 mission.
- **Mutual respect:** Recognizes the importance of human relationships and professional integrity as an important vehicle for change. Coalition seeks to strengthen relationships among its members and partners to promote, restore, maintain, and enhance the wellbeing of individuals, families and communities affected by TB.
- **Accountability:** Committed to regularly evaluate the effects of its activities. Coalition assumes the responsibility of being accountable for own actions to partners and beneficiaries.
- **Transparency:** Committed to respecting a policy of transparency and disclosure for its beneficiaries and partners by making available all information on the allocation and management of its activities.

**Terms of Reference**

**Members**: Membership will be open to all professional medical associations willing to support TB Elimination Mission of the districts including partners to the programme (NGO-PP/PPSA agencies).

**Office**: Chairman (District Collector) and Vice Chairman will be elected/ nominated by the members of the district coalition. Their tenure will be for two years. District TB officer or his nominee will serve as the member secretary.

**Meetings**: Meeting should be conducted once in every 3 months. Notice for the meeting and agenda should be served one week before the meeting by the member secretary with approval of Chairman.

**Role of member organisations in the coalition**

1. To train all members of the organisation practicing TB on 'Standards of TB care in India'.
2. To advocate with all members to use free access to daily fixed dose ATT and second-line ATT, TB preventive therapy and support for treatment adherence.
3. To ensure that all members of the association will notify all cases of TB diagnosed at the institution through NIKSHAY web portal/ mobile application.
4. To encourage and support all practitioners to actively follow up all of their patients for treatment adherence and to report treatment outcome.
5. To act as an interphase for public private partnerships for TB control by linking private health facilities to NTEP diagnostics and treatment.
6. To generate evidence and advocate for policy decisions for accelerating TB Elimination in Coimbatore and Madurai, thereby Tamil Nadu.
7. To develop a system for internal evaluations/peer auditing in TB services as a step to ensure quality of care.

**Role of Chair/Vice Chair**

- Preside over all regular Committee and other coalition meetings
- Facilitate strategic planning and provide guidance for effective execution of role of members
- Represent Coalition in events and forums as required
- Facilitate development and dissemination of regular reports of coalition activities
- Support and facilitate resource mobilization, partnership and networking activities
- Ensure membership compliance with coalition core values, code of conduct and processes.

**Monitoring**

Monitoring of the coalition and its member organisations will be done by the district coalition using following indicators

- Is the meeting of the coalition conducted during current quarter year?
- Were actions taken on all decisions of previous meetings?
- Progress of evidence generation and policy advocacy for TB Elimination done by coalition
- Number of TB Notifications and Number of health facilities notified TB facilitated through member organisations of the coalitions
- Proportion of TB practitioners in the member organisation trained in STCI
- Number and details of quality assurance activities done by the coalition
- Number of new health facilities linked to quality assured TB diagnostic and treatment services

# Annexure: IV

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

सत्यमेव जयते

भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग I—खण्ड 1

PART I—Section 1

प्राधिकार से प्रकाशित

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**स्वास्थ्य एवं परिवार कल्याण मंत्रालय**

**(स्वास्थ्य एवं परिवार कल्याण विभाग)**

अधिसूचना

नई दिल्ली, 16 मार्च, 2018

**फा. सं. जेड-28015/2/2012-टी.बी.**—जबकि, केंद्रीय सरकार का यह समाधान हो गया है कि क्षयरोग एक खतरनाक महामारी, जीवन के लिए घातक है और यह जनस्वास्थ्य की सबसे बड़ी समस्या है जो देश में अत्यधिक रूग्णता और मौतों के लिए उत्तरदायी है। क्षय रोग का शीघ्र निदान और पूर्ण उपचार करना क्षय रोग निवारण और नियंत्रण

## MINISTRY OF HEALTH AND FAMILY WELFARE

**(Department of Health and Family Welfare)**

## NOTIFICATION

New Delhi, the 16th March, 2018

**F.No. Z-28015/2/2012-TB.**—Whereas, the Central Government is satisfied, that tuberculosis is a dangerous epidemic disease, threat to life and is a major public health problem accounting for substantial morbidity and mortality in the country. Early diagnosis and complete treatment of tuberculosis is the corner-stone of tuberculosis prevention and control strategy. Further, inappropriate diagnosis and irregular or incomplete treatment with anti-tubercular drugs may contribute to complications, disease spread and emergence of drug resistant tuberculosis.

2. Whereas, to ensure proper tuberculosis diagnosis and its management in patients and their contacts and to reduce tuberculosis transmission and further to address the problems of emergence and spread of Drug Resistant-Tuberculosis, it is essential to collect complete information of all tuberculosis patients.

3. Now, therefore, in the interest of public health to control and prevent the tuberculosis disease, the Central Government, specify the following measures, namely:-

(1) The Healthcare Providers, termed as Clinical Establishment henceforth; shall notify every tuberculosis patient to local Public Health Authority, namely, District Health Officer or Chief Medical Officer of a District and Municipal Health Officer of urban local bodies in whatever way they are known; or their designated District Tuberculosis Officers in a format as specified in, -

(i) **Annexure-I** by the Medical Laboratories;

(ii) **Annexure-II** by the Medical Practitioners.

(2) All Pharmacy, Chemist and Druggist dispensing anti-tubercular medicines, shall notify respective tuberculosis patients along with details of medicines as per **Annexure-III** and maintain a copy of prescription - Annexure IV, the treating Medical Practitioner as per Schedule H1 of the Drugs and Cosmetics Rules, 1945; and shall furnish the same either electronically or in hard copy, to the Nodal Officer of the District or any Officer authorised by Nodal Officer.

(3) Considering the importance of patient support needed for complete and appropriate treatment of all tuberculosis patients are encouraged to self-notify themselves with their own details and that of treating medical practitioners.

4. **Definitions**: For the purpose of this notification, unless the context otherwise requires, the expressions -

(i) 'Tuberculosis patient' means a patient diagnosed with at least one clinical specimen positive for acid fast bacilli, or culture-positive for Mycobacterium *tuberculosis* or rapid diagnostic molecular test positive for tuberculosis, or any other tests recommended by Ministry of Health and Family Welfare, Government of India **or** a patient diagnosed clinically as a case of tuberculosis, without microbiologic confirmation, and initiated on anti-tubercular drugs.

(ii) 'clinical establishment' shall have the meaning assigned to it, clause (c) of Section 2 of the Clinical Establishment Registration and Regulation Act, 2010, (23 of 2010).

5. List and contact details of the concerned State Tuberculosis Officers and District Tuberculosis Officers, shall be regularly updated by the Central Tuberculosis Division, in the Ministry of Health and Family Welfare, Government of India and made available on www.tbcindia.gov.in and https://nikshay.gov.in; who are responsible for implementation of tuberculosis notification in their respective areas of jurisdiction and shall ensure that following action is taken by local public health staff of general health system of rural or urban local bodies, on receipt of information on tuberculosis patient notification through hard copy or through online application named Nikshay:

(1) patient home visit as per convenience of patient;

(2) counselling of tuberculosis patient and family members;

(3) treatment adherence and follow up support ensure treatment completion;

(4) contact tracing, symptoms screening, evaluation of tuberculosis symptomatics and offering isoniazid chemoprophylaxis to eligible contacts;

(5) offering HIV counselling and testing, drug susceptibility testing;

(6) linking with available social welfare and support schemes.

6. Secured web portal like https://nikshay.gov.in shall be made available by the Central Tuberculosis Division to all practitioners, clinical establishments, pharmacies, chemists, druggists and patients for online submission of information.

7. The information on tuberculosis notification received by Public Health Staff, shall be used only for extending the care and support, take appropriate public health action as mentioned in paragraph 5 above; including financial and non-financial incentives to patients, like free drugs and diagnostics, screening for co-morbidities, drug susceptibility testing, information technology based treatment adherence support system for improving quality care, etc., and providing feedback to the respective treating medical practitioner: provided that the confidentiality of the individual identity of the tuberculosis patients shall be maintained.

8. Tuberculosis patients notified from Pharmacies, Chemists and Druggists and those patients self-notified, shall be contacted and verified by Public Health Authority or their authorized representative.

9. For tuberculosis patients notified from Medical Laboratory, Chemist and self-notification by tuberculosis patient, staff of public health system will gather information to complete notification which include basis of diagnosis, site of disease, history of anti-tubercular treatment and classify type of tuberculosis patient.

10. These measures shall prevail over the earlier measures issued vide order F.No. Z-28015/2/2012-TB, dated the 7th May 2012 and its amendment dated the 23th July 2015.

11. The Clinical Establishment, Pharmacy, Chemist and Druggist, failing to notify a tuberculosis patient to the nodal officer, as mentioned in paragraph 3 above and local public health staff of general health system of rural or urban local bodies, not taking appropriate public health action on receiving tuberculosis patient notification as per paragraph 5 above, may attract the provisions of sections 269 and 270 of the Indian Penal Code (45 of 1860), as the case may be, which are reproduced below:

**"269. Negligent act likely to spread infection of disease dangerous to life**. - Whoever unlawfully or negligently does any act which is, and which he knows or has reason to believe to be, likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, or with both.

**270. Malignant act likely to spread infection of disease dangerous to life.** - Whoever malignantly does any act which is, and which he knows or has reason to believe to be, likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to two years, or with fine, or with both."

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