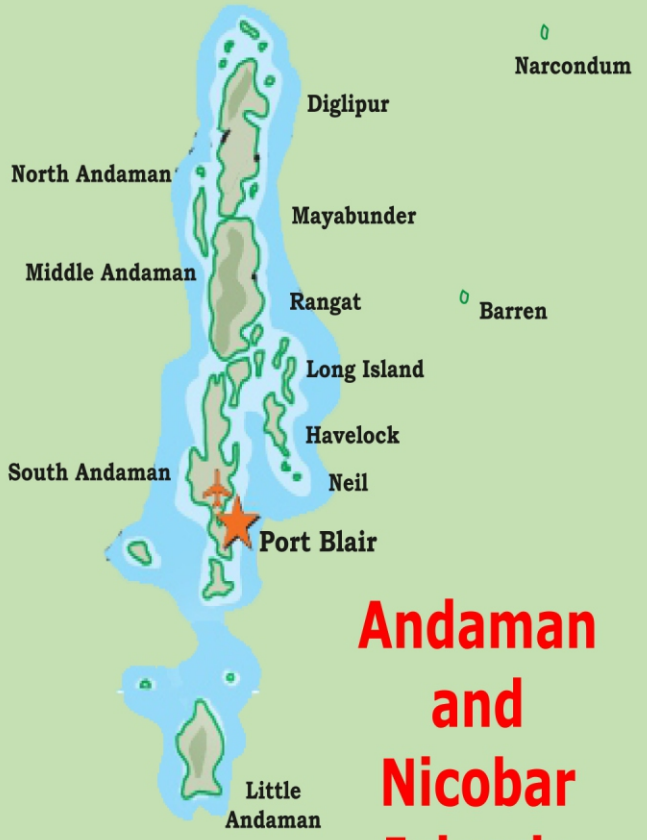
Andaman & Nicobar TB Elimination Mission Document



Andaman and Nicobar Islands

Principles, Strategies and Activities

National TB Elimination Programme
A & N Islands
Phone: 03192 - 242132, E-mail: stoan@rntcp.org

अण्डमान तथा निकोबार प्रशासन
ANDAMAN & NICOBAR ADMINISTRATION
सचिवालय / **SECRETARIAT**
*****

Port Blair, dated the 27th July 2020
Aug.

ORDER No - 30

In the area of Tuberculosis control, the A & N Administration has noted that more than 700 TB cases notified in 2013, 552 TB cases in 2016 and 588 TB cases in 2019, which is shown sustainable trend of TB cases between 2016 -2019. However, TB remains as a development challenge and public health threat.

On 13.03.2018, Hon'ble Prime Minister has declared the commitment of the Nation to end TB by 2025. Accepting the call to end TB, the Union Territory of Andaman & Nicobar Islands has called for action to eliminate TB from A & N Islands.

In this context, the A & N Administration is pleased to issue AN TB Elimination Mission Document. The mission will be implemented under the leadership of Local Self Government Institutions at various level with community participation. Department of Health & Family Welfare will coordinate with other departments and private sector for activities for TB Elimination. The principles of TB elimination in Andaman and Nicobar Islands are developed based on the four pillars of National Strategic Plan (NSP) 2017-2025 namely "Build – Prevent – Detect – Treat". TB elimination in Andaman and Nicobar Island is a six year long intensive fight against TB with five phases.

The Government is pleased to constitute TB Elimination Board at the State, District and Sub District levels for policy decisions. Also Government is pleased to constitute TB Elimination Task Forces at State level for implementation of activities for TB Elimination. Constitution and terms of reference of boards and task forces at each level, detail activity plan time lines and budgetary provision are published as "AN TB Elimination Mission Document" and is annexed to this order.

In view of the above, all Stake Holders including Government Departments are requested to extend their help and cooperation to eliminate TB from these Islands.

27/7/2020

(K R Meena)
Principal Secretary (Health)
(F.No. 1-23/DHS/NTEP/TBEP/2020)

To,

1. The Chief Secretary, A&N Administration
2. The Deputy Commissioner, South Andaman District.
3. The Secretary-Health/Mission Director-NHM, A&N Administration.
4. The Deputy Commissioner, North & Middle Andaman & Nicobar District.
5. The Director of Health Services, A&N Administration
6. The Director of Panchayat (A&N Administration)

ADMIRAL D K JOSHI
PVSM, AVSM, YSM, NM, VSM, (RETD.)
Lieutenant Governor, Andaman & Nicobar Islands
And
Vice Chairman, Islands Development Agency

Raj Niwas,
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FOREWORD

Tuberculosis remains as a development challenge and public health threat to the nation. On 13th of March 2018, Hon'ble Prime Minister of India Shri Narendra Modi has declared the commitment of the nation to end TB by 2025, ten years ahead of the global target. Accepting his call to end TB, Union Territory of Andaman & Nicobar Islands has formulated 'Andaman & Nicobar Islands TB Elimination Mission' with highest administrative commitment. UT of Andaman and Nicobar Islands has many favourable factors to eliminate TB, with entire TB services well integrated with the general health system. As envisioned by the Prime Minister, Andaman and Nicobar Islands TB Elimination Mission will be linked to the overall development plan of the UT with focus on improving socioeconomic determinants and quality of healthcare.

Aiming to achieve TB elimination by 2025, UT of Andaman & Nicobar Islands have come up with this strategy document on TB elimination as an affirmation of the administration's commitment. The principles of TB elimination in A&N Islands are developed based on the four pillars of National Strategic Plan (NSP) 2017-2025 namely Build - Prevent – Detect - Treat. TB elimination in Andaman & Nicobar Island is a six year long intensive fight against TB with five phases.

I am sure that this will mark a major mile stone in the global effort to end TB.

(Admiral D K Joshi)
PVSM, AVSM, YSM, NM, VSM (Retd)
Lieutenant Governor
Andaman and Nicobar Islands
&
Vice-Chairman, Islands Development Agency

कुलदीप राय शर्मा
संसद सदस्य
(लोक सभा)
अंडमान व निकोबार द्वीप

सत्यमेव जयते

KULDEEP RAI SHARMA
MEMBER OF PARLIAMENT
(LOK SABHA)
ANDAMAN & NICOBAR ISLANDS

Ref. No. .....

Dated : .....

No.MP/Perl/2020

17.03.2020

FOREWORD

Kuldeep Rai Sharma
Member of Parliament

Government of India is planning to end TB ten years ahead of the target set by the United Nations. During the "END TB Summit" on 13th March 2018 at New Delhi, Hon'ble Prime Minister of India has declared the commitment of the Nation to End TB by 2025. Tuberculosis is one of the major Public Health threat in the country. The disease affects the economic growth of the union territory of Andaman and Nicobar Islands as majority of our TB patients are in the productive age group.

Facilitating the goal of ending TB by the year 2025, this strategy document is prepared by the UT Andaman and Nicobar Islands with the support of World Health Organisation. The principles of TB elimination in Andaman and Nicobar Islands is based on the four pillars of National Strategic Plan (NSP) 2017-2025 namely Build - Prevent - Detect - Treat. The document calls for a six year long intensive fight against TB with five phases.

I am sure that this will mark a major mile stone in India's effort to end TB.

Kuldeep Rai Sharma

(Kuldeep Rai Sharma)

Member : Standing Comittee on Personnel, Public Grievances, Law & Justice
Member : Central Advisory Committee for Nation Cadet Corps (NCC)

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Principal Secretary (HEALTH)

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FOREWORD

Tuberculosis is one of the major public health problem in the Union Territory of Andaman and Nicobar Islands. The disease affects the economic growth of the Islands as majority of our TB patients are in the productive age group. So, we have accepted the call of the Hon'ble Prime Minister of India Shri Narendra Modi to end TB by 2025 with strategically developed activity plan in mission mode as narrated in this guideline document. TB Elimination in Union Territory of Andaman and Nicobar Islands is synonymous with strengthening health system further and reducing major TB vulnerabilities.

This is a six-year strategy document aiming to achieve a rapid decline in TB burden, morbidity, mortality and build systems to equip UT of Andaman and Nicobar Islands to achieve TB Elimination in line with the four pillars of National Strategic Plan namely Build-Prevent-Detect Treat. I thank all the officials and subject experts who contributed towards developing this strategy document. I wish Andaman and Nicobar Islands TB Elimination Mission a great success.

13/3/2020

(K R Meena)

Ms. Kriti Garg, IAS
Secretary (Health)
Mission Director (NHM)/(NAM)
A & N Administration

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FOREWORD

Launching the TB-Free India Campaign, The Hon'ble Prime Minister of India has declared the commitment of the nation to eradicate TB disease by the end of 2025. The Government of India is moving ahead with the principle of ***"Treat every TB Patient best at the very first opportunity"*** with roping of the private sector as well. Also multi-sectoral engagement and participation of all stake-holders at every level to create "TB-Free Village, Panchayat, District & State" noting that frontline TB physician and workers can make a major contribution in this direction.

With an aim to achieve TB Elimination by 2025, the Union Territory of Andaman & Nicobar Islands has made this strategy document on TB Elimination as an affirmation of the administration's commitment to end TB. This is a six year strategy document based on the four pillars of ***National Strategic Plan(NSP) namely Build-Prevent-Detect-Treat.***

I express heartfelt gratitude to all the officials and subject experts who have contributed towards developing this strategic document of TB Elimination in Andaman & Nicobar Islands and I wish all the success in future endeavors towards ending TB from these Islands.

(Ms. Kriti Garg)

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ACKNOWLEDGEMENT

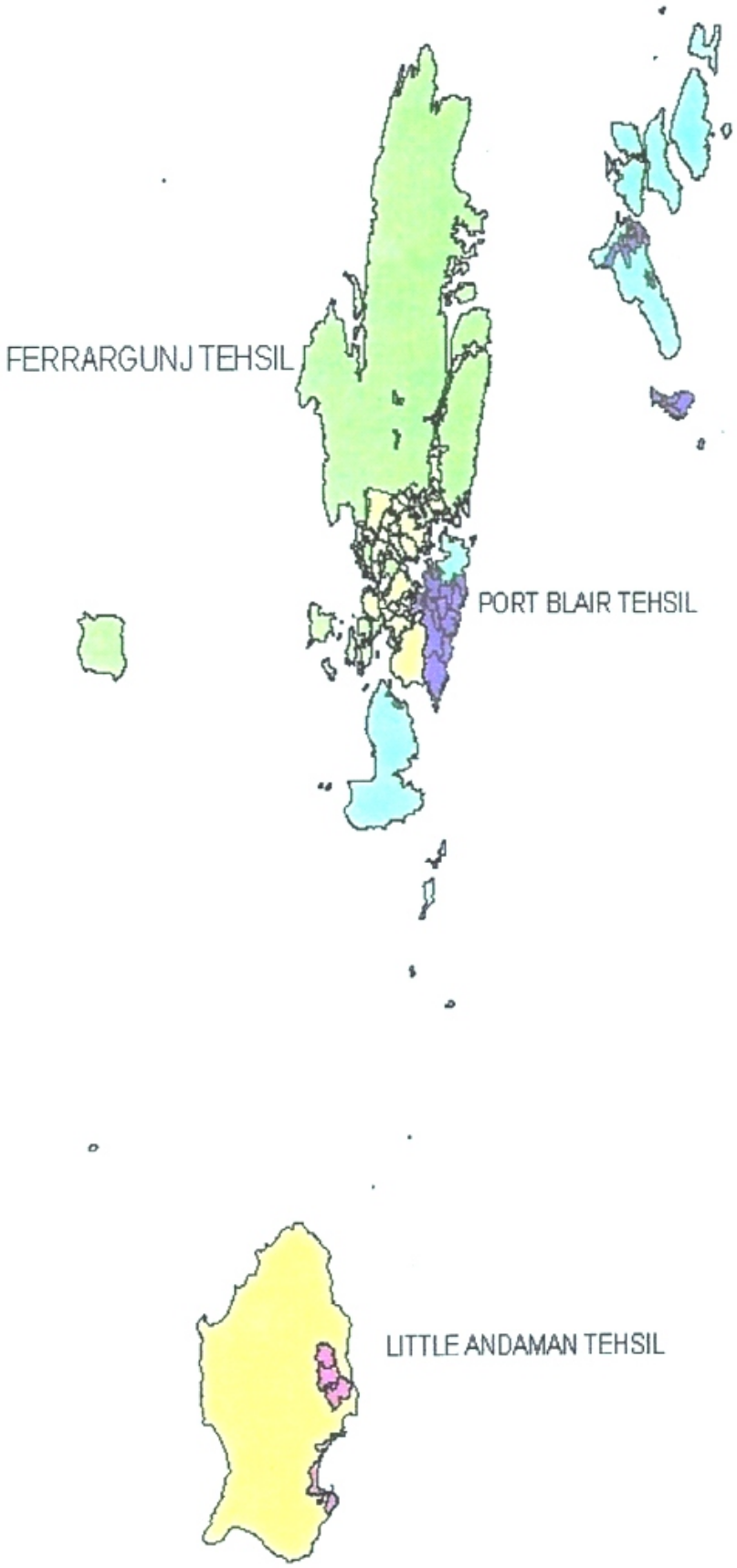
Tuberculosis is one of the major public health threat in the country. With an undoubtedly accelerated fight against Tuberculosis, Government of India is planning to end TB ten years ahead of the target fixed by United Nations. Our Hon'ble Prime Minister Shri Narendra Modi has committed to end TB in India by 2025, on 13th March 2018. The country has developed a National Strategic Plan to achieve the same. TB contributes one third of the death due to infectious aetiology in the Union Territory of Andaman and Nicobar Islands. The disease slows down the economic growth of the islands as majority of our TB patients are in the productive age group. So, TB Elimination in Union Territory of Andaman and Nicobar Islands is synonymous with strengthening health system further in diagnosing all cases of TB earlier by setting a strong surveillance system, screening and treating Latent TB Infection in high risk groups, and to reduce major TB vulnerabilities including diabetes, under nutrition, chronic respiratory diseases and tobacco use.

Facilitating the goal of ending TB by the year 2025, this strategy document is prepared by the State TB Cell of UT Andaman and Nicobar Islands with the support of World Health Organisation based on the four pillars of National Strategic Plan (NSP) namely Build - Prevent - Detect - Treat. The document calls for a six year long intensive fight against TB with five phases. I take this opportunity to express my sincere gratitude to DDG TB and Central TB Division for their support and guidance since the inception of the TB programme. I thank all the NPOs, regional consultant and UT AN Consultants from World Health Organisation who have stood with us and guided us, such that TB elimination is a realistic aspiration for us today. I take this opportunity to specially thank Dr. Anupama T, WHO NTEP Consultant - Andaman and Nicobar Islands, World Health Organisation for her support in developing this strategy document. I express my heartfelt gratitude to the UT AN Administration and DHS for their continued support to end TB. I extend my gratitude to all the DTOs and my dear colleagues at STC and in the field who carries the vision of TB-Free UT AN wherever they go.

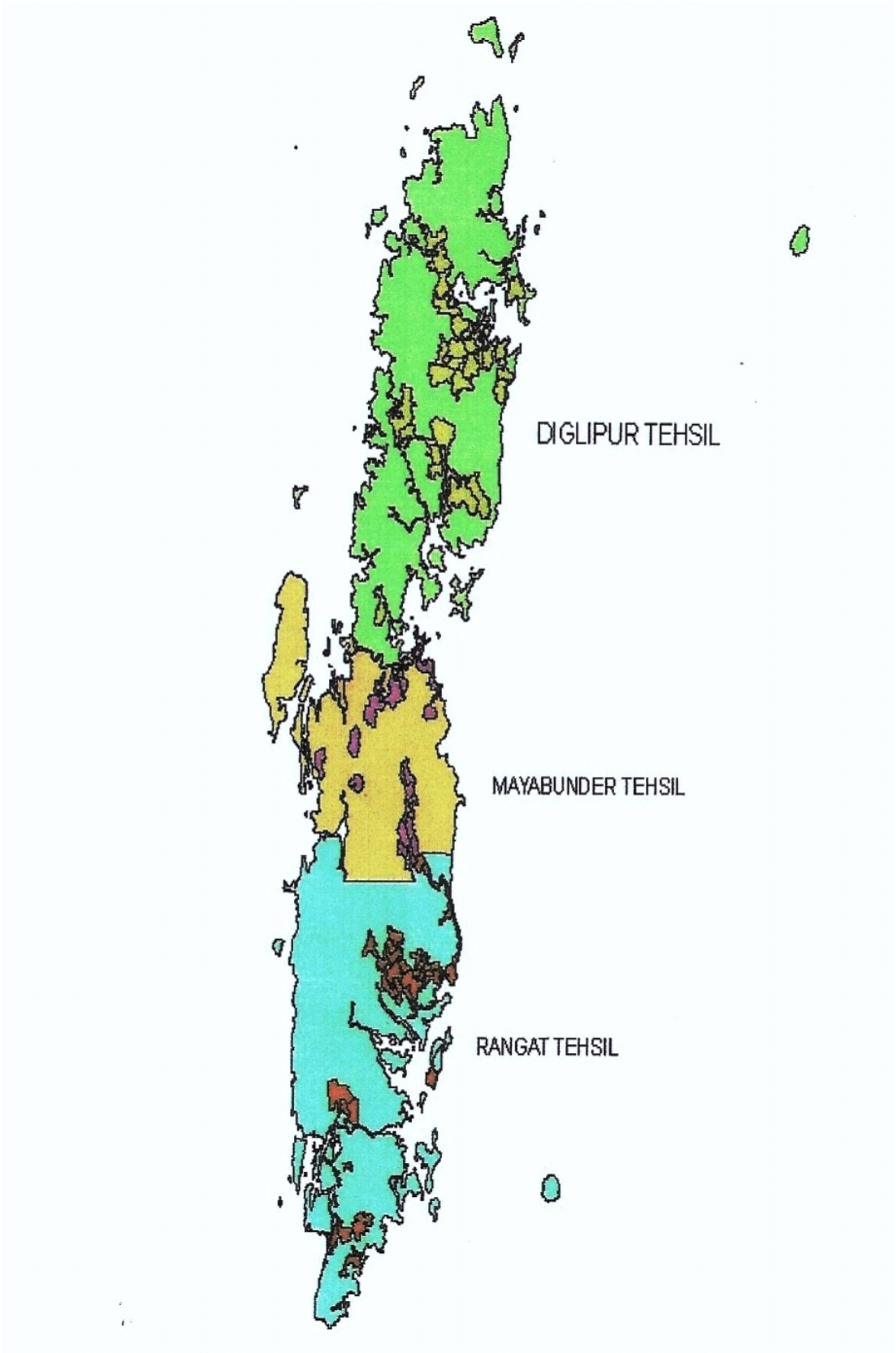
I am sure that every child born in UTAN will breath air free of *Mycobacterium Tuberculosis* within few years.

(Dr. S. P. BURMA)

SOUTH ANDAMAN DISTRICT



NORTH & MIDDLE ANDAMAN DISTRICT



NICOBAR DISTRICT

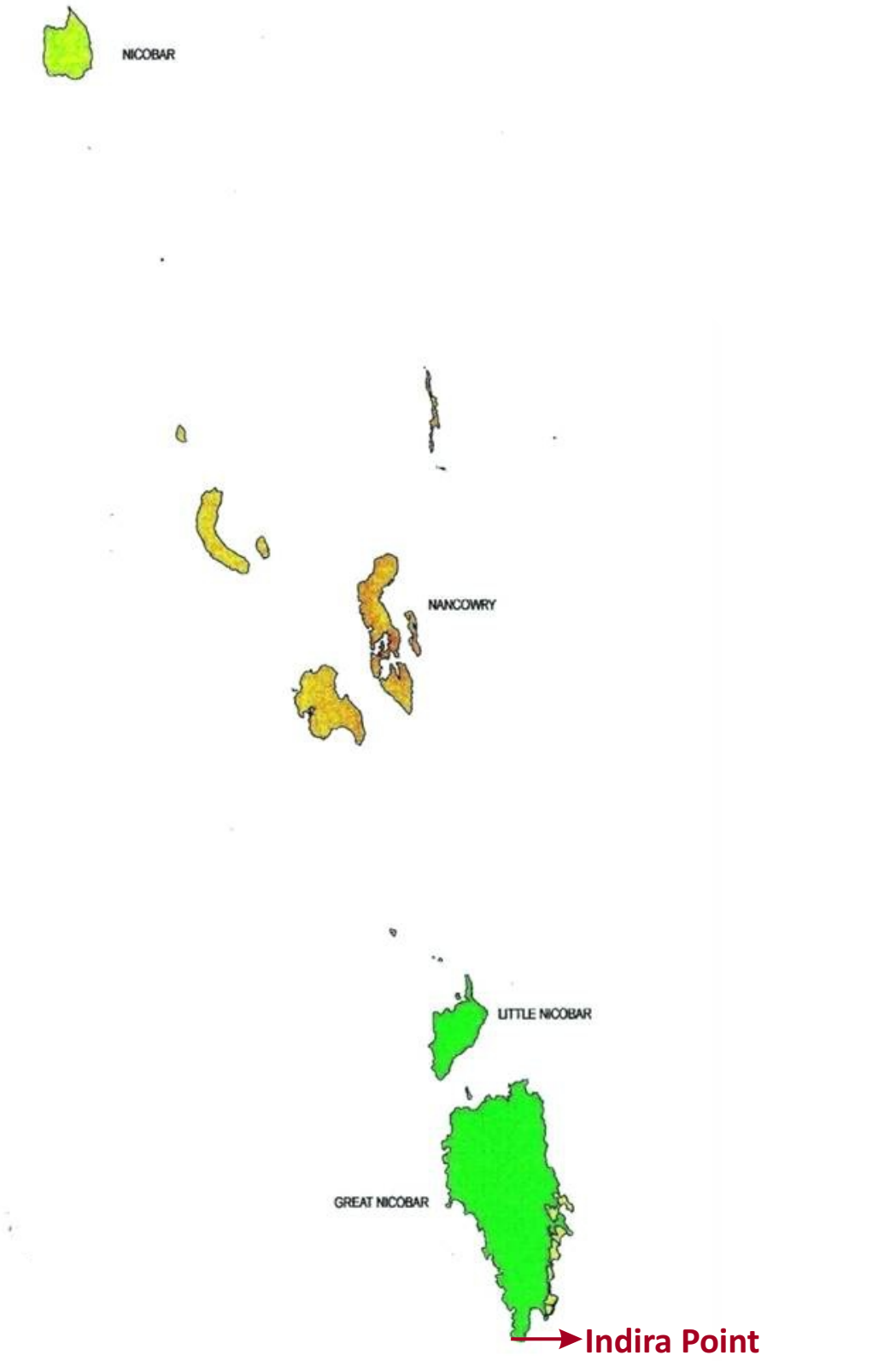


Table of Contents

Chapter 1 Geography, Demography and Health System

Andaman and Nicobar Islands

The Andaman and Nicobar Islands is a union territory of India, consisting of around 572 islands, out of which 37 islands are inhabited. The islands are in the Indian Ocean, in the southern part of the Bay of Bengal. The capital of this territory is the town of Port Blair. It is made of two island groups - the Andaman Islands and the Nicobar Islands - separating the Andaman Sea to the east, from the Indian Ocean. These two groups are separated by the 10° N parallel, the Andamans lying to the north of this latitude, and the Nicobar islands to the south. This islands have the only active volcano in India, Barren Island. These islands are mostly uninhabited. It also has the lowest point in India, The Indira Point. The territory's population in the last (2011) census of India was 3.81 lakhs. Added together, the total land area of the territory is around 8,250 km² .

Andaman and Nicobar Islands Population based on 2011 census

As per details from Census 2011, Andaman and Nicobar Islands has population of 3.81 Lakhs, an increase from figure of 3.56 Lakh in 2001 census. Total population of Andaman and Nicobar Islands as per 2011 census is 380,581 of which male and female are 202,871 and 177,710 respectively. In 2001, total population was 356,152 in which males were 192,972 while females were 163,180. The total population growth in this decade was 6.86 percent while in previous decade it was 26.94 percent. The population of Andaman and Nicobar Islands forms 0.03 percent of India in 2011.

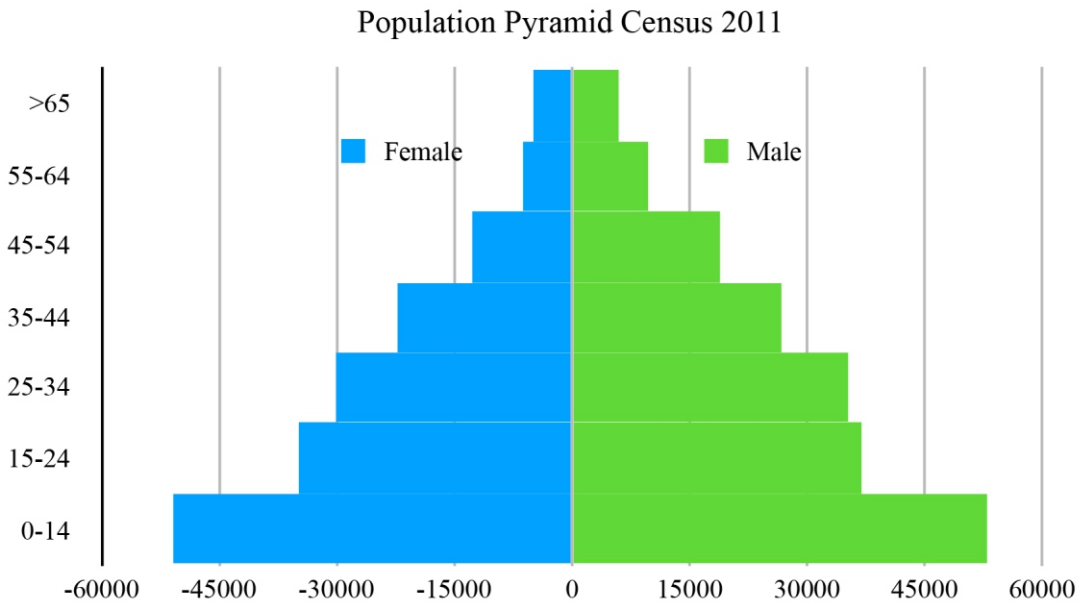
Andaman and Nicobar Islands Population 2018

As per projection, population of Andaman and Nicobar Islands in 2018 is 3.97 Lakhs.

Indicators	Urban	Rural	Total
Households with electricity (%)	99.7	95.0	97.0

Households with an improved drinking-water source1 (%)	100.0	89.9	94.3
Households using improved sanitation facility2 (%)	87.4	64.4	74.3
Households using clean fuel for cooking3 (%)	85.0	47.2	63.5
Household with any usual member covered by a health scheme or health insurance	7.7	4.1	5.7
Institutional births (%)	98.3	95.1	96.4
Children age 12-23 months fully immunised	61.8	82.5	73.2
Women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/ m2)14 (%)	10.1	15.5	13.1
Men whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/ m2) (%)	9.0	8.5	8.7
Children age 6-59 months who are anaemic (<11.0 g/ dl) (%)	47.7	50.0	49.0
All women age 15-49 years who are anaemic (%)	65.4	65.9	65.7
Men age 15-49 years who are anaemic (<13.0 g/dl) (%)	34.7	28.2	30.8
Women Blood sugar level - high (>140 mg/dl) (%)	18	12	14.5
Men Blood sugar level - high (>140 mg/dl) (%)	34.9	20.1	26
Women who use any kind of tobacco	15.3	32.7	25.1
Men who use any kind of tobacco	63.5	60.4	61.6
Women who consume alcohol (%)	1.2	3.5	2.5
Men who consume alcohol (%)	58.8	46.8	51.7
Source: NFHS-4			

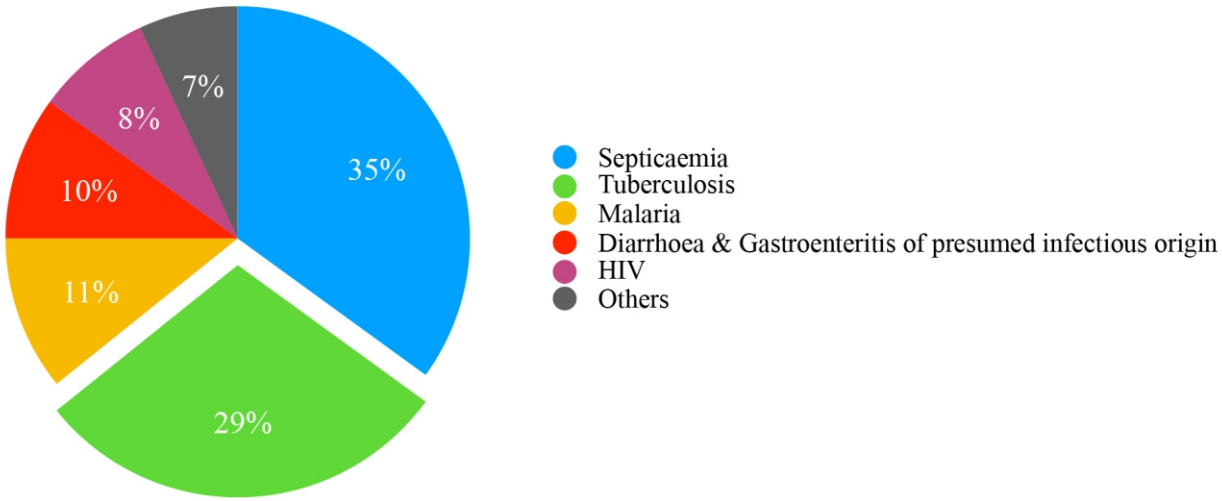
Andaman and Nicobar Islands is in the initial phase of demographic transition with major proportion of population in the paediatric age group.



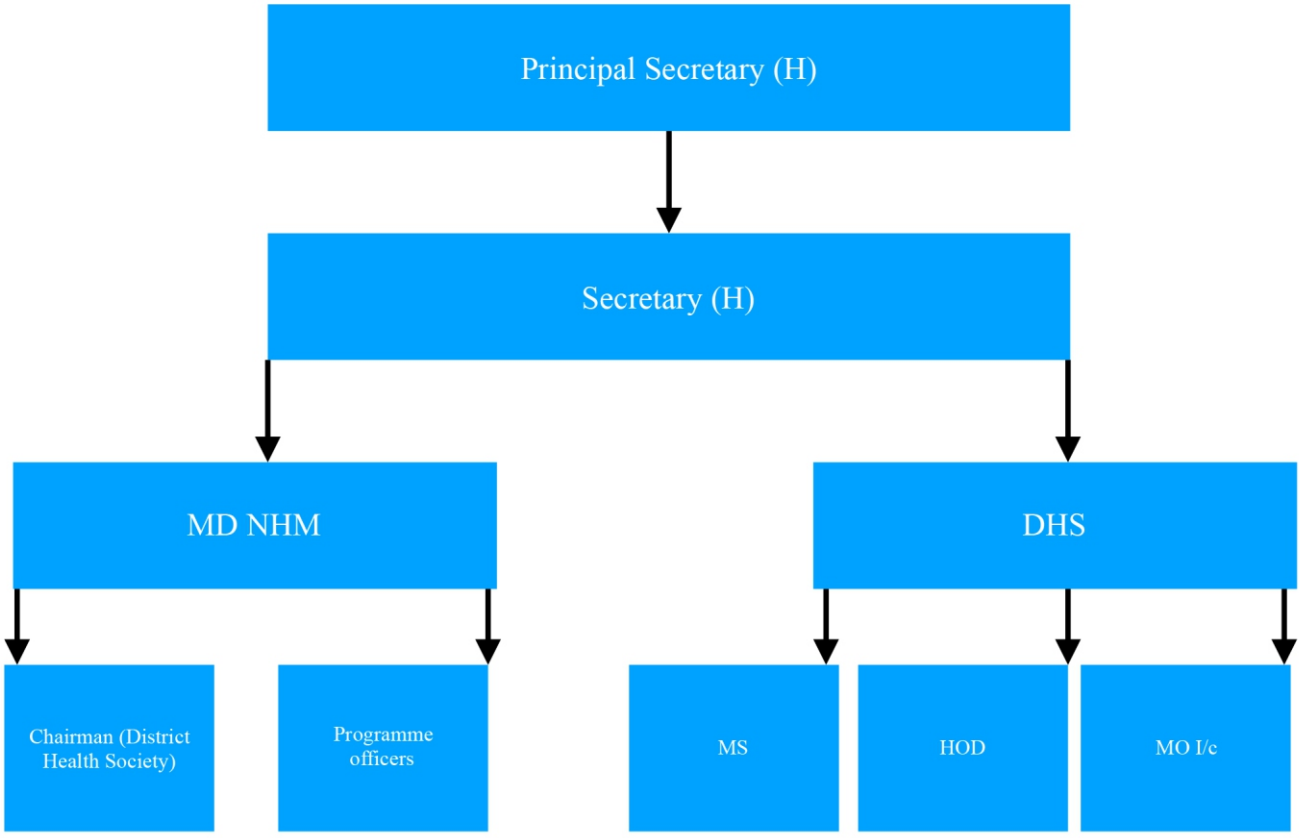
Cause of Death

Causes	%
Disease of Circulatory System	31.3
Certain Infectious & Parasitic Diseases	8.2
Diseases of Respiratory System	8.1
Certain Conditions Originating in Perinatal Period	6.0
Injury Poisoning & Certain Other Consequences of External Causes	5.8
Neoplasms	4.5
Diseases of the Digestive System	7.2
Symptoms, Signs & Abnormal Clinical & Laboratory Findings N.E.C.	1.7
Others Groups	27.3
Source: National Data 2018	

Tuberculosis accounts for 29% of the deaths due to infectious aetiology.

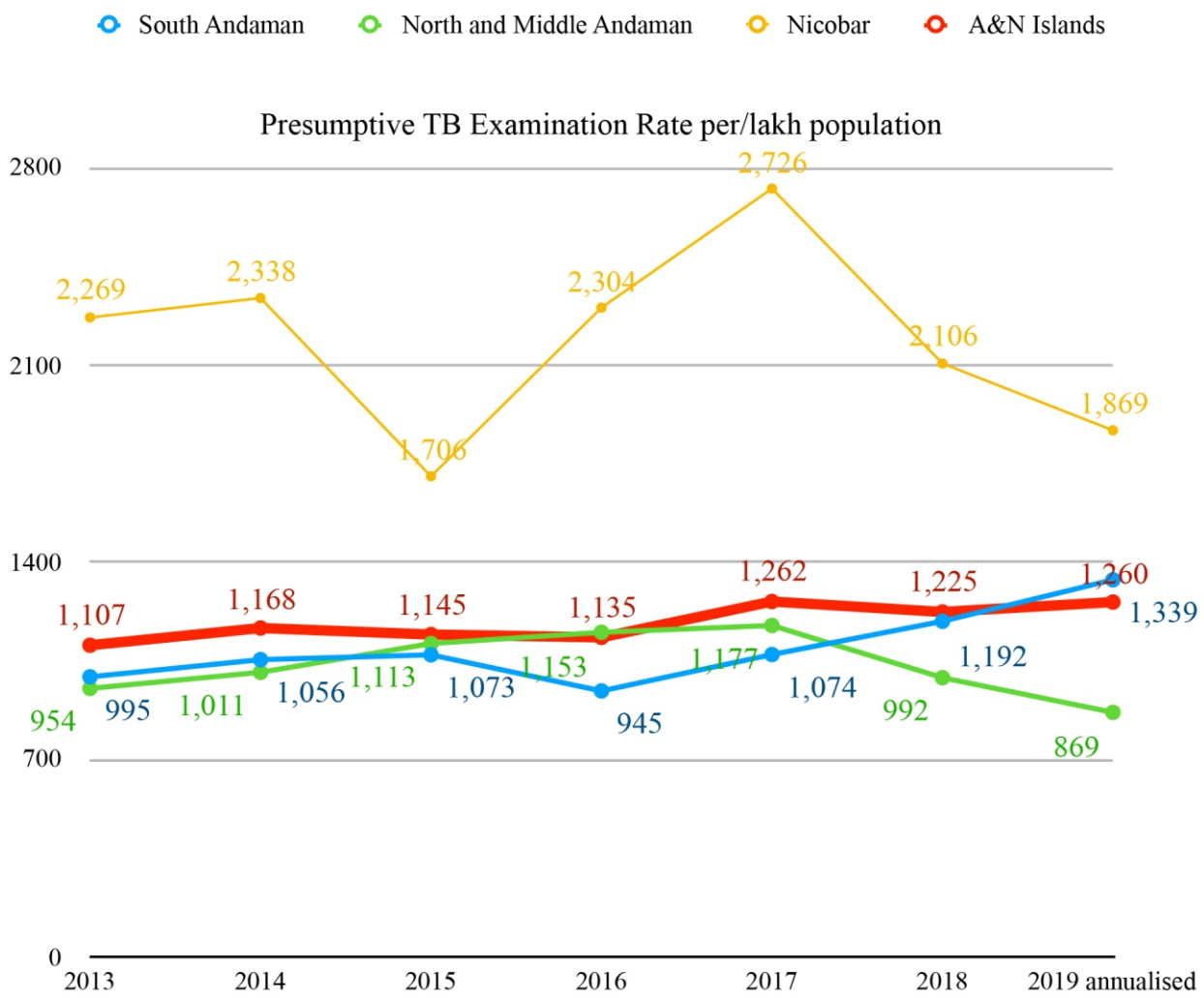


Health System in Andaman and Nicobar Islands



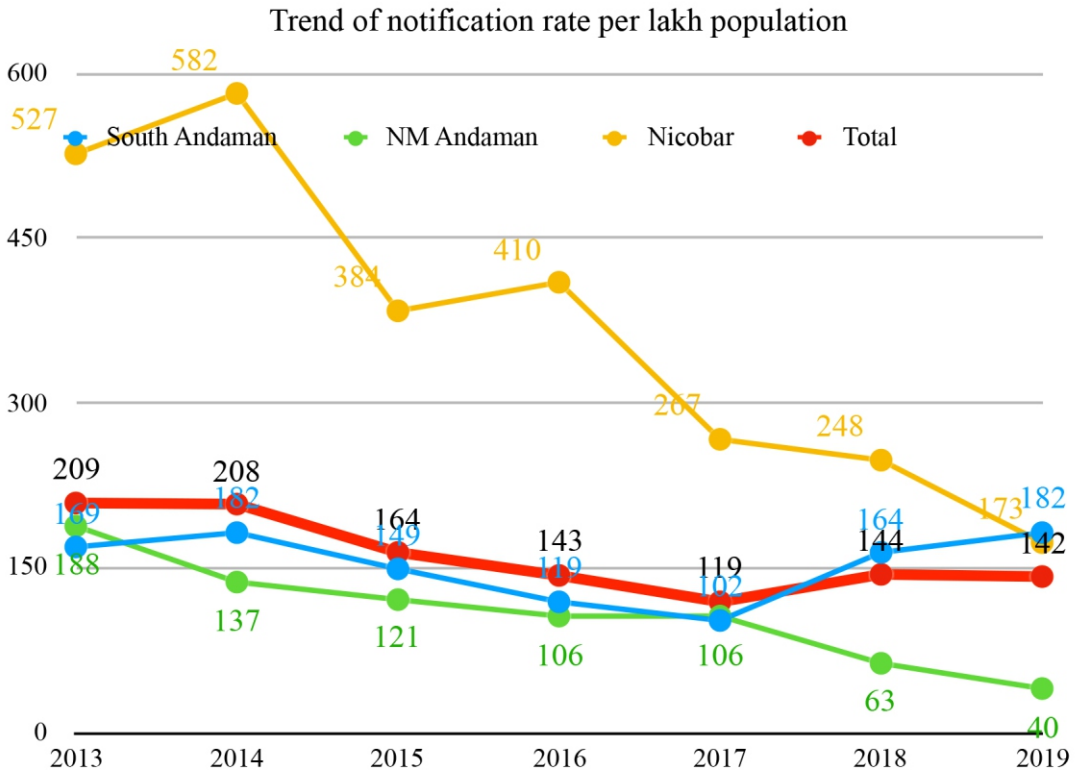
Chapter 2 TB Scenario in Andaman and Nicobar Islands

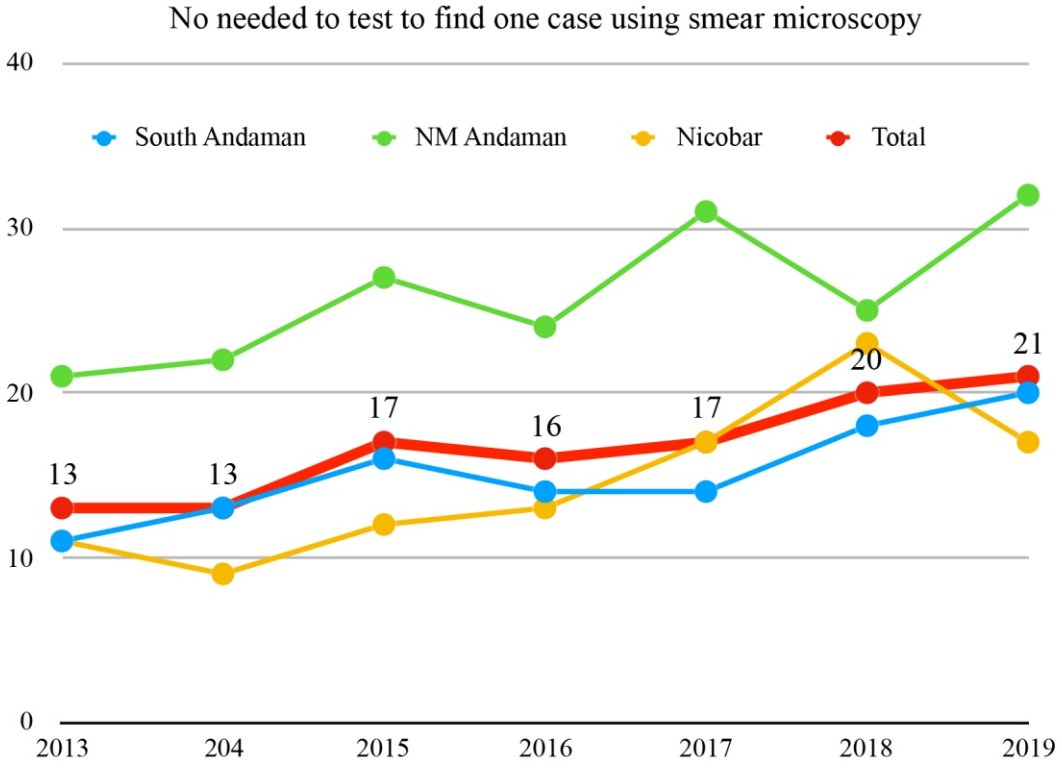
Trend of Presumptive TB Examination and Case Notification



Presumptive TB examination in the island showing an increasing trend from 1,107/ lakh population in 2013 to 1,260/lakh population in 2019. However, there is a scope to accelerate the efforts. Despite the increasing efforts to find TB cases, the notification rate is showing a decreasing trend from 209/lakh population in 2013 to 142/lakh population in 2019, implying that the TB burden of UTAN is coming down. Similarly, number of cases need to be tested to find one smear positive cases has

increased from 13 in 2013 to 21 in 2019 as a supporting evidence to the decreasing trend in notification.





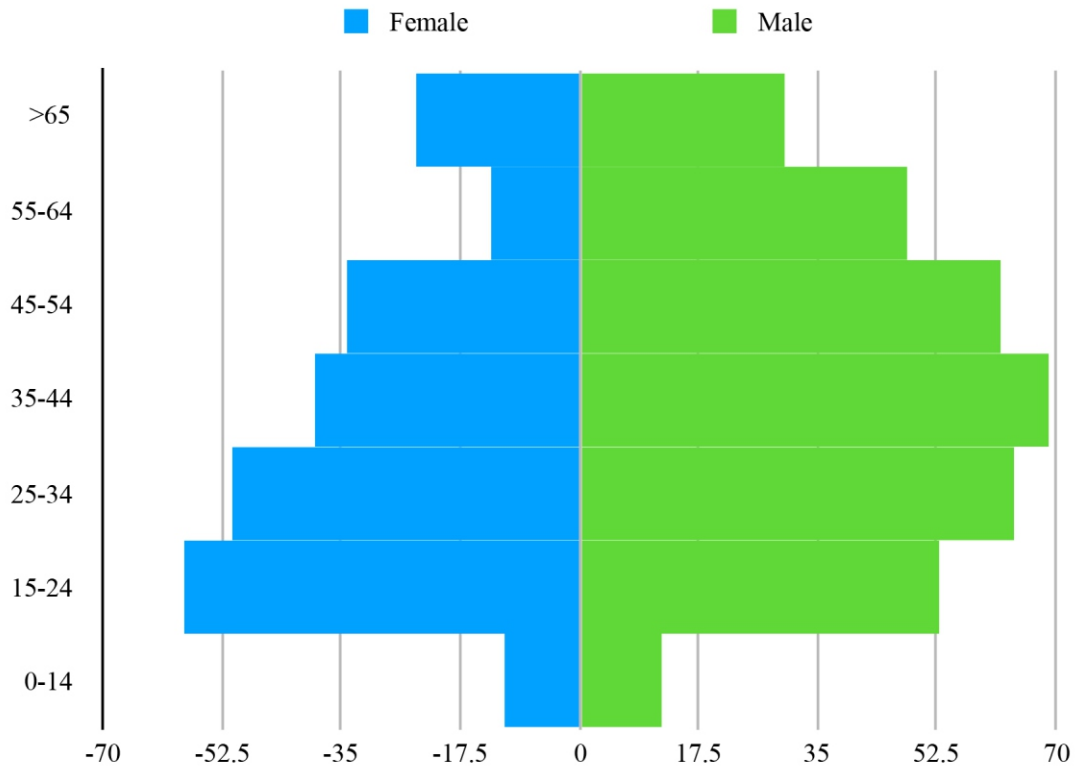
Tehsil wise Notification

As population of UTAN is low with wide differences in population density across the regions, a tehsil based notification rate is calculated for 10,000 population to identify regions with immediate TB elimination potential and regions which need aggressive TB elimination efforts. The analysis shows that the tehsils of Rangat in North and Middle Andaman district and Campbell Bay in Nicobar district fall within the definitions of World health Organisations (WHO) low incidence area, where as all the tehsils in South Andaman district and Nancowrie and Nicobar tehsils of Nicobar district need aggressive TB elimination effort.

Name of the Tehsil	Notification in absolute numbers (2019)	Projected population for 2021	Notification rate per 10,000 population
Ferrargunj	52	58921.5	9
Port Blair	268	182329.4	15
Little Andaman	17	20705.3	8
Rangat	4	40288.6	1
Mayabunder	14	28366.8	5
Diglipur	25	47501.3	5
Campbell Bay	1	9203.7	1
Nancowrie	37	11697.4	32
Nicobar	27	19625.1	14

TB Population Pyramid

TB population of UTAN is distributed in the productive age group of 15-64 years. This has huge social and economic implication of the UT necessitating targeted activities to tackle the issue.



Incidence of TB within the Family

As the practice of living in joint family is widespread in the community, Andaman and Nicobar Islands have a special issue of multiple cases of both drug sensitive and drug resistant cases diagnosed within the same family. Table shows the details of cases diagnosed within the same family from 2015 and 2019. The data calls for responsible public health action, latent TB infection management and further research.

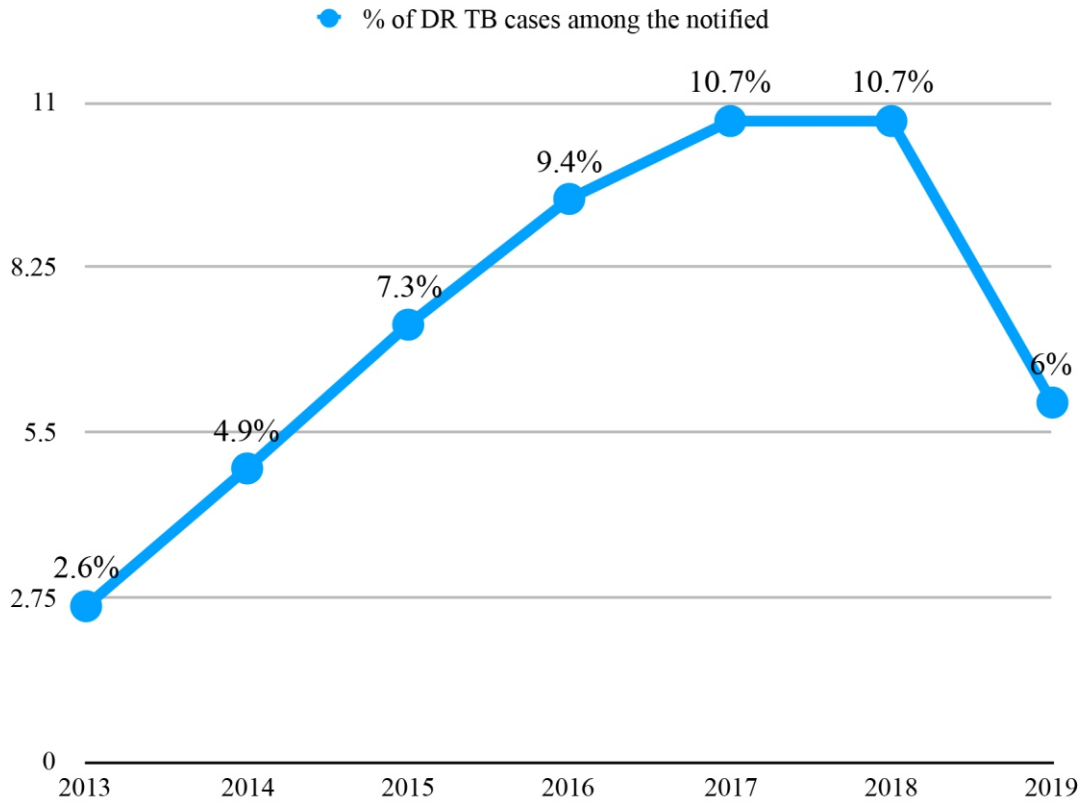
District	No of families with 2 or more cases of TB between 2015-19	No of cases per each such family	No of families with 2 or more cases of DR TB between 2015-19	No of cases per each such family
South Andaman	2	1st family 2 cases 2nd family 2 cases	4	1st family 4 cases 2nd family 2 cases 3rd family 4 cases 4th family 3 cases
North and Middle Andaman	4	1st family 2 cases 2nd family 2 cases 3rd family 2 cases 4th family 2 cases	0	0
Nicobar	1	1 family with 2 cases	2	1st family 5 cases 2nd family 2 cases

Microbiological confirmation

	Total cases	0-5 years age group	Pulmonary TB	EP TB	New cases	DM	Public cases	Private cases
Microbiologically confirmed	329	1	271	19	265	20	324	5
%	57.8%	16.7%	82.4%	9.6%	54.4%	54.1%	57.8%	62.5%
Total	569	6	329	198	487	37	561	8

The overall microbiological confirmation of TB cases is around 60% with scope of improvement in paediatric and extra pulmonary sample collection and processing.

Drug Resistant TB Scenario



With advanced diagnostic tools and responsible efforts, UTAN is diagnosing and managing drug resistant tuberculosis from the Nodal Drug Resistant TB Centre (NDRTBC) and the District Drug Resistant TB Centre (DDRTBC) at Car Nicobar and Mayabunder.

Chapter 3 Moving Towards TB Elimination in Andaman and Nicobar Islands

A. What are the strengths of Andaman and Nicobar Islands to achieve TB Elimination?

- High political and administrative commitment for TB elimination
- Geographical isolation from mainland which reduces risk for exposure and re-exposure to TB
- TB programme is totally integrated with the general health system
- Government is the major health provider with minimal presence of private sector
- Clean localities with good air and less industrial pollution

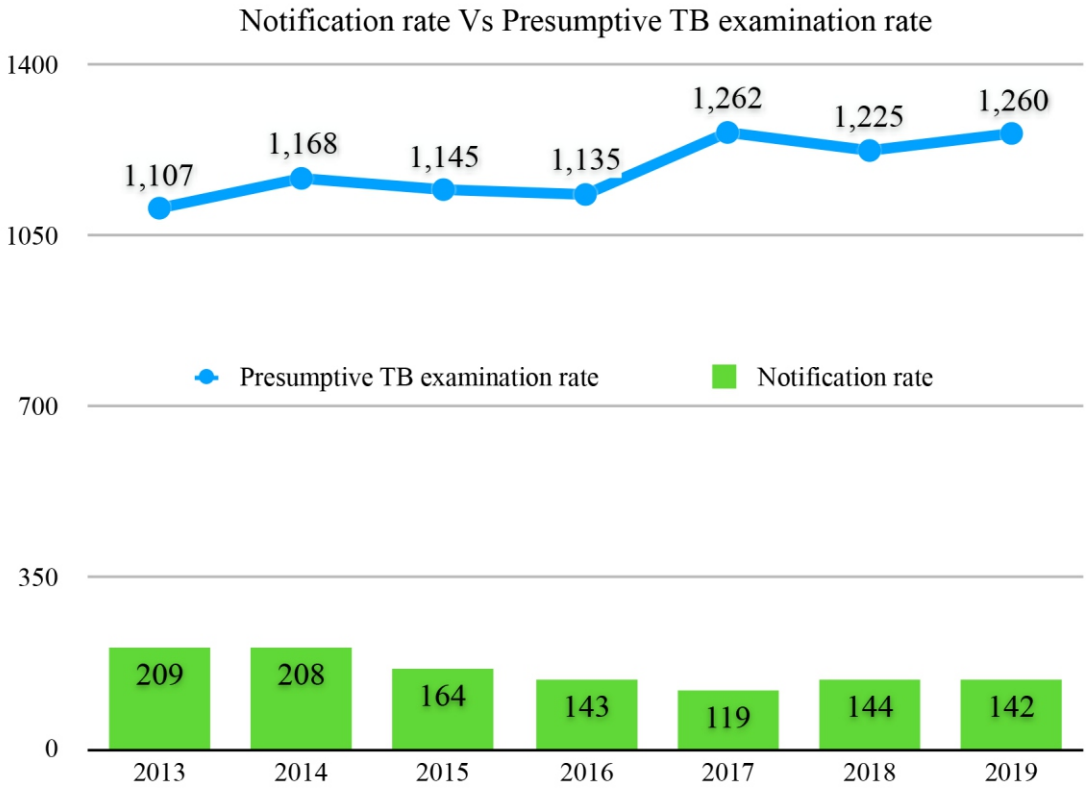
B. What are the challenges in moving towards TB elimination in Andaman and Nicobar Islands?

- High population growth rate
- Population is scattered across islands which are far from each other separated by the sea and forests with limited transportation and communication options available
- Rising trend of diabetes mellitus
- High burden of drug resistant TB
- Lack of robust biological specimen transportation mechanism
- Out migration to mainland in search of better employment opportunities
- Difficulty in retaining skilled human resources for health in remote locations
- Absence of UT specific TB burden

C. Is it possible to achieve TB elimination in Andaman and Nicobar Islands?

The World Health Organisation defines TB elimination as less than one case (<1 case) of TB disease per million population annually and defines a low incidence region as less than 100 cases (<100 cases) per million. However, UTAN aims to achieve reduction as per National Strategic Plan 2017-2025.

Presumptive TB examination in the island showing an increasing trend from 1,107/ lakh population in 2013 to 1,260/lakh population in 2019. However, there is a scope to accelerate the efforts. Despite the increasing efforts to find TB cases, the notification rate is showing a decreasing trend from 209/lakh population in 2013 to 142/lakh population in 2019, implying that the TB burden of UTAN is coming down. Similarly, number of cases need to be tested to find one smear positive cases has increased from 13 in 2013 to 21 in 2019 as a supporting evidence to the decreasing trend in notification.



Goal of AN TB Elimination Mission

Year	2020	2021	2022	2023	2024	2025
Notification rate targets	155 (15% increase)	160 (5% increase)	135 (15% decrease)	100 (25% decrease)	70 (30% decrease)	40 (40% decrease)
Total no of cases expected	610	630	530	400	280	160

Principles of TB Elimination in Andaman and Nicobar Islands

The principles of TB elimination in Andaman and Nicobar Islands are developed based on the four pillars of National Strategic Plan (NSP) 2017-2025 namely ***Prevent - Detect - Treat - Build***

A. Prevent

1. Stop new TB infections

1.1. Airborne Infection Control (AIC) in health facilities, house holds and community
1.2. Early detection and treatment of cases

2. Prevent active break down of TB disease among the infected

2.1. Detect and manage co-morbidities
2.2. Manage risk factors including smoking and substance abuse
2.3. Prevent and manage under nutrition
2.4. Detect and treat Latent TB Infection

B. Detect

3. Diagnose TB early and completely

3.1. Identify individuals vulnerable to TB in the community
3.2. Actively search for TB periodically among the vulnerable
3.3. Universal access to TB diagnosis and Drug Susceptibility Testing (DST)
3.4. Robust specimen collection and transportation mechanism

C. Treat

4. Treat TB correctly and completely

4.1. DST guided regimen for treatment
4.2. Detect and manage co-morbidities among TB patients

4.3. Treatment support groups for social support during treatment

5. Effective management of drug resistance

5.1. Indoor management of resistant cases till first negative smear or culture report
5.2. Ensure judicious use of anti-TB drugs by peer/ social audit

D. Build

6. Reforms in health system

6.1. Capacity building of the health system for TB elimination
6.2. Strengthen State and District TB Cell
6.3. Developing pathways for private sector participation

7. Multi sectoral engagement for TB elimination

7.1. Creation of TB elimination board at UT, district and panchayat/village levels
7.2. Engagement with various ministries to address TB elimination among tribals and mobile populations

Strategies for TB Elimination in Andaman and Nicobar Islands

The strategy has eleven components.

1. Generation of awareness and demand for TB services through Advocacy, Communication, and Social Mobilisation.
2. Airborne infection control in health facilities, households and community
3. Mapping of vulnerable population and active case finding and treatment of TB disease among the same
4. Establish robust TB surveillance system for early diagnosis, treatment and public health action
5. Complete treatment of all forms of TB including drug resistant TB
6. Universal access to drug susceptibility testing and DST guided treatment
7. Screening for co-morbidities including HIV and diabetes, and their management

8. Establishment of cross-border collaboration with private hospitals in Chennai, Visakhapatnam and Kolkata
9. Addressing TB and other health issues among tribals and mobile populations including tourists
10. Targeted testing and treatment of Latent TB infection
11. Addressing major TB vulnerabilities including undernutrition, tobacco and indoor air pollution

1. Generation of awareness and demand for TB services through Advocacy, Communication, and Social Mobilisation

Advocacy

Sensitisation of every village and district panchayat on the need and outcomes of TB elimination using local appropriate methodology so that TB elimination will be a part of any other development initiatives. This will

a. Bring in popularity and acceptance for the interventions and ensure civic compliance
b. Strengthen active surveillance and early notification
c. Improve social support to diagnosed TB patients
d. Pool resources by local self government (LSG) bodies beyond the provision by TB programme for locally appropriate additional interventions

Sensitisation will be done by the public health team at the concerned Primary Health Centre. Outcome of this sensitisation is a TB Elimination Task Force and a local plan of action for TB elimination in each village and district panchayats.

Communication

Repeated, sustained and simple messages on TB must be distributed to all the household in the panchayat or municipality. Peripheral health workers and Accredited Social Health Activists (ASHAs) to be trained and equipped with tools to impart TB education to all households. Communication efforts should go hand in hand with other general as well as programme surveillance activities which are narrated elsewhere. TB elimination hoardings to be erected at all the popular meeting places, island entry points and tourist spots.

Social Mobilisation

Under the leadership of representatives to Local Self Government (LSG) bodies and opinion activists, civil society movements should be organised in each village/island to increase demand for TB elimination.

2. Airborne Infection Control (AIC) in health facilities, households and community

Health Facilities

Establishment of hospital infection control committees to assess and certify all health facilities for AIC compliance. All the health staff and health facility administrators are to be trained in National AIC Guidelines. Sensitisation messages on AIC should be put up in all health facilities. Practice of triaging of respiratory symptomatic with availability of masks/hand kerchiefs/tissue should be ensured in all the hospitals.

Households

Designated peripheral health worker and ASHA responsible for home based public health support should supervise, monitor and document patient's compliance with AIC Kit (five cloth masks, spittoon and disinfectant solution) to cover cough and disinfect sputum.

Community

Messages on cough etiquette as a component of general health system Information Education and Communication (IEC) and tourism promotions to reach all the citizens. The practice of cough etiquette should be promoted and enforced by LSG bodies.

3. Mapping of vulnerable population and active case finding and treatment of TB disease among the same

It is important to identify populations vulnerable to TB to target for active case finding for early TB diagnosis and treatment initiation as burden of TB is higher among the vulnerable group of individuals as compared to the general population. This paves way for reduction in TB disease transmission and better treatment

outcomes. For this purpose, a cross-sectional survey for identification of individuals vulnerable to TB in the community to be conducted to assign a vulnerability score to each and every individual in the community and grade them based on the score. This exercise will be followed by active case finding with periodic follow-up of individuals vulnerable to TB. Those with symptoms suggestive of TB will be investigated for TB. Those with Grade I vulnerability will be followed-up once a year and those with Grade II vulnerability will be followed-up once in 3 months by Health Care Worker of health sub-centres in the concerned area. A database of vulnerable individuals by name and unique identification details is to be maintained for this purpose at health centre/ sub centre level.

4. Establish robust TB surveillance system for early diagnosis, treatment and public health action

Surveillance is one of the fundamental public health activities necessary for the control and elimination of TB. A robust surveillance system should be able to identify individuals with risk to develop TB and monitor them lifelong for developing TB disease.

a. Surveillance based on vulnerability score of the individuals

Vulnerability mapping exercise will be carried out in the entire island as mentioned elsewhere. Each peripheral healthcare worker and ASHAs will do regular surveillance of identified vulnerable individuals in their respective areas.

b. Case based surveillance of TB disease

Achievement of 100% notification of all TB cases diagnosed at or transferred in to Andaman and Nicobar Islands and provision of public health action to all such cases including correct and complete treatment, chemoprophylaxis for the eligible, airborne infection control at households and nutritional support through Nikshay Poshan Yojna should be ensured. Each case, after treatment, should be kept under active surveillance to detect recurrence or re-infection at the earliest.

c. Surveillance for prevalence of TB disease and Latent TB Infection (LTBI)

Prevalence of TB disease need to be estimated and periodically assessed every third year to monitor the trend of prevalence of TB. This should be done covering all the

adults above the age of 18 using X-yay and testing using molecular tests followed by liquid culture. Monitoring LTBI prevalence trend is needed once the policy to detect and treat LTBI is formulated at national level.

d. Surveillance of TB among mobile populations including tourists

There are many workers coming from mainland to Andaman and Nicobar Islands for work for short periods of time. A declaration of TB status may be made mandatory by administration for such workers. All the non resident travellers including tourists should be mandatorily screened for TB at the points of entry (airport and ports). Those who declare to have TB and those with symptoms suggestive of TB should be offered all diagnostic, medical and public health support by the health system.

5. Complete treatment of all forms of TB including drug resistant TB

Principle of complete treatment is not completing treatment anyway. It is prompt initiation of treatment with the right regime, regular intake of all doses, prevent or manage factors adversely affecting a good treatment outcome like adverse reactions to drugs (ADR) and co-morbidities, addressing social inclusion issues, substance abuse, smoking and unfavourable occupations so that the patient regains health in a comprehensive fashion. This is important in preventing long term morbidity due to various TB sequelae. It is also important in achieving a goal of zero TB death.

Strategy for complete treatment includes

a. Prompt initiation of treatment of TB including drug resistant TB
b. Patient support through treatment support groups
c. Monitoring and promotion of adherence
d. Early detection and management of ADR
e. Institutional management of seriously ill patients
f. Management of co-morbidities

a. Prompt initiation of treatment of TB including DRTB

All TB patient patients should be initiated on a first-line regime within seven days of diagnosis. While initiation of patient on a first-line regime is well within a week, initiation of DRTB patients on a second-line regime is mostly after a week.

Considering the burden of DRTB in Andaman and Nicobar islands, all districts should have at least one functional DRTB centre with a panel of specialists trained in management of drug resistant TB. The DRTB centre should have an indoor facility to admit 4 to 5 patients at a time. Similarly, seriously ill drug sensitive patients may also need hospitalisation.

b. Patient support through treatment support groups

A treatment support group (TSG) is a non-statutory body of socially responsible citizens and volunteers to provide social support to each needy TB patient safeguarding his dignity and confidentiality by ensuring access to information, free and quality services and social welfare programs, empowering the patient for making decision to complete the treatment successfully. The group is usually chaired by the president of Gram Panchayat or a local opinion leader. Members of the group are the Medical Officer (MO), MPHW, treatment supporters, experienced informal counsellors, community based or faith based organisation (FBO) members, police officers, local philanthropists and other community volunteers. TSG links the patient to social welfare schemes, District Panchayat's nutritional support projects if any, Alcohol de-addiction or tobacco cessation clinics. For example, a patient needs transportation support to go to DOT centre, a community volunteer or taxi driver may pick and drop him free of cost, or a local philanthropist may pay for the service. A patient who tends to interrupt treatment would be counselled by the counsellor member. Emotional and spiritual support would be provided by the FBO member.

c. Monitoring and promotion of adherence

While supervised treatment is an important intervention to ensure intake of every dose of anti TB medications, the daily transactions occur only between the patient and treatment supporter in which the health system does not take part. So, every treatment supporter should be trained to understand the factors adversely affecting adherence and report them to the health system when they are noticed.

d. Early detection and management of ADR

Adverse reactions to drugs (ADRs) play major role in interruptions in treatment, increase in morbidity and catastrophic expenditure. To prevent, detect and manage ADRs, the following may be considered.

i. Treatment initiation by a medical officer after interrogating thoroughly for conditions that may predispose to or complicate ADRs. In situations where such conditions exist, laboratory investigations need to be done to guide treatment.
ii. Monthly clinical review by Medical Officers of the PHI or the treating clinician. In the presence of any predisposing condition, this monitoring should be at least once in two weeks.
iii. Basic tests to rule out impaired liver and renal function should be done at two monthly intervals.
iv. All ADRs should be reported through Vigiflow, the WHO web system for pharmacovigilance. So, all the Medical Officers should be sensitised on Vigiflow.

e. Institutional management of seriously ill patients

It is important to manage seriously ill TB and DRTB patients in secondary or tertiary care institutions where there are facilities for such management. Considering the burden of DRTB in Andaman and Nicobar islands, all districts should have at least one functional DRTB centre with a panel of specialists trained in management of drug resistant TB. The DRTB centre should have an indoor facility to admit 4 to 5 patients at a time. In addition to this, all subdistrict level hospitals should have at least 1-2 beds designated to manage seriously ill TB patients.

f. Early detection and management of co-morbidities

Management of co-morbidities is discussed with more relevance elsewhere. Non communicable diseases (NCDs) like diabetes, chronic respiratory/kidney diseases, cardiovascular diseases and cancers do significantly lower the favourable outcomes of TB treatment. With prompt linkages to respective disease control programs, patients could be ensured cure and better quality of life.

6. Universal access to drug susceptibility testing and DST guided treatment

Universal access to DST

All diagnosed TB cases should know their resistance status to Rifampicin and Isoniazid before initiation of treatment. Currently Rifampicin resistance is being tested in the CBNAAT laboratories at Port Blair, Mayabunder, Nancowry and Campbell Bay. Due to poor connectivity, it is difficult for samples to reach the site of

these laboratories especially during the monsoon season. So, TrueNAT is proposed at each island where there is an existing Designated Microscopic Centre (DMC). All samples are being sent at baseline to IRL Chennai for further tests like FL LPA, SL LPA and CDST, the results of which will determine the further course of treatment. Lack of robust specimen transportation mechanism and issues of human resource shortage at IRL Chennai results in delay in initiating the appropriate regimen. When the Intermediate Reference Laboratory (IRL) Port Blair becomes functional, these tests can be done there at baseline and treatment initiation delays shall be avoided.

DST guided treatment

Standard first line regimen should be started for all cases that are not found to be Rifampicin resistant at the time of diagnosis. Standard FL regimen should be modified according to the extended DST report. Standard second line regimen should be started for all Rifampicin resistant cases and this is to be modified according to the extended DST report.

7. Screening for co-morbidities and their management

Screening and management Diabetes

Diabetes may increase the risk of TB infection, active TB disease and unfavourable outcomes including relapse. So, all TB patients need to be screened for diabetes. If the cases is found to be diabetic, they need to be additionally screened for drug interactions, adverse reactions to drugs etc. Insulin may be considered over oral hypoglycaemic agents during the entire duration of TB treatment. People with Diabetes who do not have TB may be screened for TB during their monthly visit to NCD clinic. A strong NCD control program is the prerequisite for this intervention.

Screening and management of Chronic Respiratory Diseases (CRDs)

Chronic respiratory diseases (CRDs) may increase the risk and pose threat to effective TB treatment. So patients with CRDs should be given a patient centred management approach at the primary care facility.

Intensified TB - HIV cases finding

There should be a strong bi-directional screening for HIV among TB cases and for TB among PLHIV. District HIV TB coordination committee is to be strengthened in a task oriented way in achieving this.

8. Establishment of cross-border collaboration with private hospitals in Chennai, Visakhapatnam and Kolkata

People of Andaman and Nicobar Island depends on private hospitals especially in Chennai, Visakhapatnam and Kolkata. A cross-border collaboration with Zero-TB Chennai Initiative and private hospitals in Kolkata are needed for ensuring early diagnosis, complete and unduplicated TB notification and free of cost TB services to people of the island. This would help to address issues on confidentiality, treatment adherence, initiating public health actions, LTBI detection and management, and long term follow up.

9. Addressing TB and other health issues among tribals and mobile populations including tourists

TB in mobile populations

There are many workers coming from mainland to Andaman and Nicobar Islands for work for short periods of time. A declaration of TB status may be made mandatory by administration for such workers. All the non resident travellers including tourists may be mandatorily screened for TB at all the points of entry (airport and ports). Those who declare to have TB and those with symptoms suggestive of TB should be offered all diagnostic, medical and public health support by the health system.

TB in tribals

TB among tribals require special attention. TB among tribals may be managed as a special project. An ethnically sensitive intervention is required for ending TB among tribal populations. It is characterised by

a. Limiting travel to access care
b. Providing enablers to travel when necessary
c. Mechanisms for sputum collection and transportation
d. Administration of drugs at home

e. Early identification of under nutrition and provision of preventive and therapeutic nutrition
f. Support for airborne infection control at households
g. Early detection and management of co-morbidities including support in tobacco cessation and alcohol de-addiction
h. Social support systems provided at focal points in the community
i. Ethnically sensitive hospitalisation facilities for severely ill TB patients at district hospitals

10. Targeted testing and treatment of Latent TB Infection (LTBI)

Diagnosis and treatment of latent TB infection may help to reduce the reservoir of infection that may drastically reduce the incidence of TB disease and accelerate TB elimination. For this purpose, screening for diagnosis and treatment of LTBI should be carried out among all the households contacts of DS TB cases in the first phase. Once the data on vulnerable individuals in the community is available, this activity should be extended to cover the same. Treatment will be 'offered' to those diagnosed with LTBI who will be encouraged to opt for treatment. All those who opt for treatment would be monitored for adherence and completion of the full course of treatment.

11. Addressing major TB vulnerabilities including undernutrition, tobacco and indoor air pollution

Prevention of vulnerabilities through poverty reduction, improvement in nutritional status, prevention of indoor air pollution and addressing the issue of smoking, substance abuse and harmful use of alcohol, is needed. Administration should integrate TB elimination with other development initiatives like poverty alleviation programmes, LPG schemes and other social welfare schemes.

Chapter 4 Activity Plan

TB elimination in Andaman and Nicobar Island is a six year long intensive fight against TB. It has five phases.

Phase	Major focus during the phase	Timeline
I	Active surveillance for TB facilitating early case finding	1st April 2020 - 31st December 2025
II	TB Vulnerability Mapping of the entire population	1st June 2020 - 31st August 2020
III	Vulnerability reduction at individual and community level	1st October 2020 - 31st December 2025
IV	Airborne infection control at households, community and institutional level	1st April 2020 - 31st December 2025
V	Detection and Management of latent TB Infection	1st November 2020 - 31st December 2025

BUILD

Undertake critical management reforms, restructuring of HR and financial norms, pathways for private sector participation, in order to improve efficiency, effectiveness, and accountability of the health system for an improved response to the TB epidemic.

Activity 1	Launching of AN TB Elimination Mission
Concept	An official launch of AN TB Elimination Mission by Hon LG (AN). Guideline document on AN TB Elimination Mission to be published and launched on the same day.
Timeline	Before 15th March 2020

Activity 2	Formation of UTAN TB Elimination Board
Concept	TB Elimination Board is the apex body to take policy decisions on strategy, operations, resources and timelines for TB Elimination. It is the direct demonstration of Administration's stewardship for TB elimination. It monitors implementation of TB elimination strategy at all levels and adopt appropriate corrective measures on recognition of shortfalls or gaps

Constitution	Chief Patron : Principal Secretary (Health) Patrons : Hon. Member of Parliament Chair : Secretary(Health) Members : Director of Medical Health Services Mission Director, National Health Mission State TB Officer(Convenor) WHO Consultant
Terms of Reference	The Board meets once in three months. It takes policy decisions on strategy, operations, resources and timelines of TB elimination. It takes decisions on appropriate local adaptation of national guidelines for National TB Elimination Programme (NTEP), and seeks resources beyond the budgeted resources in NTEP PIP
Timeline	TB Elimination Board need to be constituted before 1st April 2020
Monitoring Indicator	Number of meetings of the board conducted during current year? Were actions taken on all decisions of previous meetings?
Activity 3	**Formation of UTAN TB Elimination Task Force**
Constitution	Chief Executive Officer: Mission Director, National Health Mission Chief Operating Officer: State TB Officer Members : MS GB Pant Hospital HOD Community Medicine ANIIMS Nodal Officer (NCD) Deputy Director (Health) State IEC Officer, NTEP Project Director, ANACS DTO South Andaman
Terms of Reference	The TB Elimination Task Force plans, executes, supervises, monitors, reviews activities and reports to State TB Elimination Board. It prepares NTEP state PIP and TB elimination activity plan every year. It compiles reports from all island level task forces. The TB Elimination task force needs to meet every month and submit report to TB Elimination Board.
Timeline	Taskforce to be formed by 1st April 2020
Monitoring Indicator	Has the TB Elimination task force met and submitted reported monthly to TB Elimination board? Were all actions taken based on previous minutes?

Activity 4	Formation of District/ Sub District level TB Elimination Board
Concept	TB Elimination boards need to be formed in all districts. It plans, executes, supervises, monitors, reviews activities of each island and reports to State TB Elimination Board
Constitution	Chair : Deputy Commissioner/ Assistant Commissioner Members : PRI Member (Chair Person - Zilla Parishat) DTO/ Medical Officer-In-Charge Medical Officer(TB Elimination)-Convenor NGO Representative/Youth Club Leader
Terms of Reference	The Board meets once in three months. It takes policy decisions on strategy, operations, resources and timelines of TB elimination activities. It takes decisions on appropriate local adaptation of national guidelines for National TB Elimination Programme (NTEP) and seeks resources beyond the budgeted resources in NTEP PIP. District/ Sub District TB elimination board submits quarterly reports to UT TB Elimination Board. Convener prepares the reports on actions taken on the minutes of the previous meeting and submits to UT TEB with approval of the Chairperson.
Timeline	District/ Sub District level TB Elimination Board need to be constituted before 1st April 2020
Monitoring Indicator	Number of meetings of the board conducted during current year? Were actions taken on all decisions of previous meetings?

Activity 5	Designated MO-TE at all Panchayats/ villages
Concept	To strengthen supervision and monitoring activities and coordination of TBE activities at panchayat/village level, a medical officer needs to be designated as MO TE (Medical Officer TB Elimination) at all the panchayats/villages.
Terms of Reference	MO TE can be MO In-charge of the panchayat/village or another medical officer. MO TE will help MO-In-Charge to supervise, monitor and co-ordinate TB Elimination activities and report to MO I/c
Process	Department Order designating MO TE for all the panchayats/ villages
Timeline	All panchayats/villages should have designated MOTE by 31st March 2020
Monitoring Indicator	Number of panchayats/villages with MO TE

Activity 6	Sensitisation of state/district level key policy makers and administrators
Concept	PRI members at district level are to be sensitised on TB elimination and empowered to lead the battle against TB in their respective jurisdiction. The deputy commissioners are to be sensitised on the principles, strategies, activity plans and resources, and monitoring indicators.
Target Audience	Deputy Commissioners, Assistant Commissioners, Zilla Parishat Chairman and PRI members
Process	DO letter from LG Half day workshop or One to one sensitisation by MO /c/ MO TE
Timeline	DO letter to be sent before 30th April 2020
Expected Outcome	Key policy makers of UTAN are aware about TBE Mission
Monitoring Indicator	Are listed activity completed according to schedule?

Activity 7	Sensitisation of Program Officers at headquarters level under DHS, NHM and ANIIMS
Target Audience	Nodal Officers of all National Programmes, key programme officers of NCD, NHM, key programme officers of DHS and HODs of ANIIMS
Process	Half day sensitisation in NHM Conference hall using Power Point Presentation
Timeline	Sensitisation need to be completed before 30th April 2020
Monitoring Indicator	Number of officers/key program staff sensitised out of those listed

Activity 8	Sensitisation of all Medical Officers
Concept	All doctors need to be trained in strategies for TB Elimination Mission
Process	Half day sensitisation to Doctors at district/regional head quarters in 3 batches
Timeline	Training to be completed before 30th April 2020
Expected Outcome	All doctors understand strategies of TBE Mission.They should be able to conduct active case detection in hospital settings, reduce individual vulnerability to develop TB and screen co-morbidity and manage TB with co-morbidities
Monitoring Indicator	Proportion of doctors sensitised in AN TBE Mission

Activity 9	Sensitisation of doctors in other system of medicine
Concept	All doctors in other systems of medicine need to be trained in strategies of TB Elimination Mission
Target Audience	Doctors in other system of medicine
Process	Half day sensitisation to Doctors at district/regional head quarters
Timeline	Training to be completed before 31st May 2020
Expected Outcome	All doctors in other systems of medicine support TBE Mission
Monitoring Indicator	Proportion of doctors in other systems of medicine sensitised in AN TBE Mission

Activity 10	Training of all RNTCP key officials and panchayat/village MO-TE
Concept	All MO TE and NTEP Key staff to be master trainers of AN TBE Mission
Target Audience	All MO TE and NTEP Key staff
Process	6 days training for MO TEs and NTEP key staff on AN TB Elimination Mission
Timeline	Training need to be completed before 31st May 2020
Expected Outcome	All MOTE and NTEP key staff could lead the TBE Mission successfully
Monitoring Indicator	Number of NTEP key officials and MO TE trained out of those listed

Activity 11	Training of MPHWs and ANMs
Concept	All MPHWs and ANMs need to be trained in strategies for TB Elimination Mission
Target Audience	MPHWs, ANMs
Process	One day training to MPHWs and ANMs
Timeline	Training to be completed before 30th June 2020
Expected Outcome	All MPHWs and ANMs could implement the activities as intended
Monitoring Indicator	Proportion of MPHWs, ANMs trained in AN TBE Mission

Activity 12	Training of ASHAs
Concept	All ASHAs need to be trained in strategies for TB Elimination Mission
Process	One day training to ASHAs
Timeline	Training to be completed before 30th June 2020
Expected Outcome	All ASHAs could implement the activities as intended
Monitoring Indicator	Proportion of ASHAs trained in TBE Mission

Activity 13	Mapping of Dweep wise TB Case for past five years
Concept	To prioritise TB elimination activities, it is important to have panchayat/village/municipality wise mapping of TB cases
Process	From the TB registers/Nikshay, each case registered/ notified is assigned to the respective area according to the residential address. Cases which are not notified by NTEP-AN but notified and treated at private hospitals in main land are also to be mapped
Timeline	Mapping to be completed by 31st May 2020
Expected Outcome	The map will be used for epidemiological analysis and also as an advocacy tool to PRI members
Monitoring Indicator	Availability of TB spot map

Activity 14	TB Harega Desh Jeetega hoardings at all islands
Concept	Under AN TB Elimination Mission, 'TB Harega Desh Jeetega' hoardings to be placed at key locations of all islands as a sign of Administration’s commitment
Process	Hoardings with messages on TB Elimination mission and vision with theme 'TB Harega Desh Jeetega ' to be placed at key locations of all islands
Timeline	Before 30th April 2020
Expected Outcome	Helping everybody to reiterate their commitment for TB Elimination
Monitoring Indicator	Number of islands with hoardings installed

Activity 15	Formation of cross border collaboration with private hospital consortiums and TB Elimination task forces in Chennai, Visakhapatnam and Kolkata
Concept	The information about a resident of UTAN diagnosed and treated with TB at private or Government health facilities in Chennai, Visakhapatnam or Kolkata need to reach State TB Cell, AN at the earliest. This will enable the UTAN Health services to provide all public health actions and services to the patients in discussion with the treating hospitals.
Process	Communication to all Hospital Administrators of important hospitals in Chennai, Visakhapatnam and Kolkata by State TB Officer. Ensuring commitment from private hospital consortiums or associations at Kolkata, Visakhapatnam and Zero TB Chennai Initiative for smooth communication and information transfer
Timeline	Request letter with key contact information to be sent before 28th February 2020. Request to be sought from DTO and IMA office bearers for establishing smooth communications. Communication with nodal officers in private hospitals to be established by STS' of UTAN before 31st March 2020.
Expected Outcome	Free and rapid information transfer will happen and patient will receive all public health services
Monitoring Indicator	Are the listed activities happening according to schedule? Are all cases diagnosed at mainland informed to STS of UTAN by respective hospital within 48 hours? Do all patients belonging to UTAN diagnosed at mainland receive all public health actions?

Activity 16	Surveillance for prevalence for TB disease
Concept	An estimate of prevalence of TB to be known to monitor the impact of interventions

Process	Prevalence will be estimated in routine conditions by visiting every household and symptom screening. Subjects with any pulmonary TB symptom will be subjected to X ray and CBNAAT. The results will be carefully interpreted based on diagnostic accuracy of symptom complex screening and CBNAAT result.
Expected Outcome	An estimate of TB disease prevalence is available for UTAN from 2Q 2021
Timeline	1st June 2020 to 31st December 2020

PREVENT

Prevent the emergence of TB in susceptible populations.

Activity 17	Airborne infection control kit to all microbiologically confirmed pulmonary TB patients
Concept	Majority of the new TB cases reported in UTAN are among the household contacts of TB cases. Prevention of airborne infection to the patient's family members need specific interventions. These are education, assistance for improved ventilation, support for cough etiquette and safe disposal of sputum
Process	Every diagnosed TB patient is provided with a kit containing a disposable spittoon, one litre of disinfectant solution to be diluted and used in the spittoon, and 5 washable cotton face masks for reuse during the initial home visit by health worker. Health worker educates the patient on infection control processes. During every house visit, the health workers ensures that the patient uses the materials and observes cough etiquette.
Expected Outcome	All TB patients receive infection control kit and observe cough etiquette thereby reducing transmission within households
Monitoring Indicator	Proportion of patients received AIC kit
Timeline	Ongoing activity to be implemented from April 2020

Activity 18	Diagnosis and management of Latent TB Infection
Concept	To drastically reduce the pool of infection, all the vulnerable individuals who are mapped and targeted for active surveillance, may be tested for LTBI and offered treatment
Process	Every vulnerable individual in the vulnerability database especially contacts may be offered LTBI screening. Those who are found infected, may be offered treatment for LTBI. Finalising the strategy will be based on National policy. LTBI testing and management will be piloted in TB units with lowest transmission rates, starting from 1st November 2020 and will be scalped up to all islands based on the lessons learnt
Expected Outcome	Drastic reduction in incidence of TB disease

Activity 19	Facility Airborne Risk Assessment and Hospitals
Concept	Hospitals are potential source of cross infection. All hospitals are to be assessed for compliance with airborne infection control guidelines with a checklist
Process	MO TE along with a team of experts selected by the UT TBE Task Force to do AIC risk assessment of all hospitals using a checklist and assess risk of infection in the most vulnerable areas (ICU/CCU/Laboratory/IP wards/OPD) and submit recommendations to hospital administration. Hospital administration to take corrective actions accordingly.
Timeline	Facility risk assessment to be completed by June 30th 2020 All hospitals to be made compliant by October 31st 2020
Expected Outcome	All hospitals are AIC compliant and no cross infections occur from hospitals
Monitoring Indicator	Proportion of hospitals underwent facility risk assessment Proportion of hospitals compliant with AIC guidelines Proportion of non-compliant institutions/facilities made compliant to AIC guidelines

Activity 20	Air borne infection control in community
Concept	Behaviour Change Communication strategy to be in place for practicing cough hygiene by all residents of UTAN
Process	Cough etiquette to be taught for 30 minutes in all schools by the class teacher. Children should make their family members aware. Class wise poster competition to be conducted in all schools on AIC. Thrust on inter personal communication while doing house visit for ACF in 2020 will be AIC
Expected Outcome	All residents are aware of and practice cough etiquette
Timeline	Activity need to be completed before 31st December 2020

Activity 21	Community level interventions for TB Vulnerability reduction
Concept	Vulnerability to develop TB (Diabetes, Tobacco, Indoor air pollution) needs to be reduced at community level
Process	Banning public smoking through legislation, rising taxation of cigarettes, BCC at schools for good life styles including healthy diet and physical activity, creating and empowering women groups for behaviour change communication at community level for healthy diet and increasing physical activity and strengthening systems for proper management of NCDs in all hospitals. Promoting safe cooking fuel by the administration to be taken up. TB Co-morbidity committee to monitor the same quarterly.
Expected Outcome	Reduction in number of tobacco users, right shift in mean age of development of diabetes mellitus, reduction in proportion of uncontrolled diabetes among people with diabetes and reduction in number of incident TB cases.

Activity 22	TB Vulnerability reduction for individuals
Concept	Vulnerability to develop TB (Undernutrition, Diabetes, Tobacco and Alcohol) needs to be reduced at individual level

Process	Individuals identified with vulnerability to develop TB will be referred to Health centres/Hospitals by ASHA/ANM/ APHWs for reducing the vulnerability. Smoking cessation services, alcohol de-addiction and NCD management services need to be strengthened at all hospitals/health centres. TB co-morbidity committee to monitor the same quarterly
Expected Outcome	System will proactively try to reduce TB vulnerability of individuals through customised interventions
Monitoring Indicator	Proportion of individuals with vulnerability referred to health centre/hospital for reducing vulnerability Proportion of individuals using tobacco who received tobacco cessation services
Timeline	Ongoing activity to systematically start from April 1, 2020

DETECT

Early identification of presumptive TB cases, at the first point of care, be it private or public sectors, and prompt diagnosis using high sensitivity diagnostic tests to provide universal access to quality TB diagnosis including drug-resistant TB in the country.

Activity 23	House to house campaign for awareness generation, assessing vulnerability and active case finding
Concept	Objective is to personally meet all the individuals in UT in three months to (1) Generate TB awareness in every resident (2) Assess the TB vulnerability of every resident and to generate a vulnerability database for TB surveillance (3) Refer anyone with TB symptoms identified during house visit, for TB testing
Process	Trained ASHA workers will visit each household over June 1st to August 31st, 2020. They will collect data on each and every residents' vulnerability to develop TB using a pro forma and measure height and weight using appropriate instruments. Each household will be given a pamphlet with general information on TB. If anyone with TB symptoms identified during house visit, would be referred for TB testing at the nearest DMC.

Timeline	June 1st 2020 - August 31st 2020
Expected Outcome	1. Entire population to be aware of TB 2. Vulnerability data of entire population need to be captured 3. ACF among entire population at regular intervals
Monitoring Indicator	Proportion of individuals with TB vulnerability data Proportion of 1. Symptomatic identified during ACF 2. Reached health facility 3. Underwent testing 4. Found to be TB

Activity 24	Vulnerability data compilation
Concept	TB vulnerability data of the entire population will help to target high risk individuals for active case finding
Process	Island wise vulnerability data will be entered in Excel. MO TE will cross validate 2% of the entered data. Vulnerability factors will be given weighed scores as follows: Household Contact(5), Malnutrition(5), Immunosuppressive Therapy(4), Health Care Worker(3), Diabetes(3), Organ Dysfunction(3), Chronic Lung Disease(2), Smoking(2), Alcoholism(2), Migrant(2), Age above 60(2). Total score of each individual will be calculated
Timeline	Data entry to be completed by September 30th 2020
Expected Outcome	Vulnerability data will give clear idea about major vulnerabilities and help to plan targeted active case finding and vulnerability reduction strategies
Monitoring Indicator	Proportion of individuals with TB vulnerability data entered in Excel sheet Quality of data entry in terms of correctness and completeness

Activity 25	Quarterly active case finding among the vulnerable individuals
Concept	Quarterly active case finding among vulnerable individuals will facilitate early case finding and improve efficiency of the health system

Process	Individuals with vulnerability to develop TB (score above 5) will be visited every three months by ASHA worker and will be screened for TB symptoms. Anybody with TB symptoms will be seen by a medical officer and will be tested using a rapid molecular test and Chest X ray. If the total score is 1 to 5, the person is moderately vulnerable and to be screened for symptoms once in a year
Timeline	To take place quarterly from 4 Qtr. 2020 to 4 Qtr. 2025
Expected Outcome	All cases will be diagnosed from community at the earliest, facilitating reduction in transmission of the infection
Monitoring Indicator	Proportions of individuals with TB vulnerability screened for TB symptoms-Quarter wise Out of screened, proportion of 1. Symptomatic identified 2. Reached health facility 3. Underwent testing 4. Found to be TB
Activity 26	**Universal DST**
Concept	All patients should know their susceptibility status to at least Rifampicin and INH at baseline
Process	All TB patients who are with appropriate specimen available need to undergo upfront drug susceptibility testing with NAAT to detect any resistance to Rifampicin. All TB patients diagnosed as Rifampicin sensitive to undergo First Line Line Probe Assay (FL LPA) at IRL Chennai/Port Blair to detect resistance to INH. If the patient is resistant to Rifampicin, another sample is to be collected and sent for confirmation and second-line DST at IRL. UTAN health system needs capacity building in paediatric and EP TB sample collection techniques. Robust specimen collection and transportation system for sending samples to IRL needs to be established with the help of NGO/Speed Post/Transport Ministry in each island. IRL Port Blair to be made functional by 4Q 2020.
Timeline	Establishment of robust specimen collection and transportation mechanism by 31st May 2020 Upfront NAAT to all cases with appropriate specimen available from 1st June 2020 Training on paediatric sample collection to all staff nurses by 30th June 2020. Functional IRL at Port Blair by 31st October 2020

Expected Outcome	Any resistance to Rifampicin or INH will be picked up at the baseline itself and appropriate treatment regimen initiated
Monitoring Indicator	Proportion of microbiologically confirmed cases with Rifampicin status known Proportion of microbiologically confirmed case with INH status known

Activity 27	Workplace screening
Concept	As majority of the TB cases in UTAN are in the productive age group, screening for TB among health workers, fishermen, construction workers, municipality workers and those who are engaged in shipping, needs to be carried out once in six months to facilitate early case detection
Process	All the healthcare workers will be screened for TB once in every six months. ACF will be conducted among fishermen, construction workers, municipality workers and those who are engaged in shipping, once in every six months.
Timeline	Ongoing activity to begin from 2Q 2020
Expected Outcome	Early detection of TB among healthcare workers, fishermen and construction workers.

TREAT

Provide sustained, equitable access to high-quality TB treatment, care, and support services responsive to the community needs without financial loss thereby protecting the population especially the poor and vulnerable from TB related morbidity, mortality, and poverty.

Activity 28	In-patient management of high risk TB/ DR TB cases
Concept	It is important to manage seriously ill/high risk TB and DRTB patients in secondary or tertiary care institutions where there are facilities for such management. Considering the burden of DRTB in Andaman and Nicobar islands, all districts should have at least one functional DRTB centre with a panel of specialists trained in management of drug resistant TB.

Process	Establish functional DR TB centre at district hospitals with indoor facility to admit 4 to 6 patients at a time. In addition to this, all subdistrict level hospitals should have at least 1-2 beds designated to manage seriously ill TB patients. The tehsils with more than 100 cases per lakh population (Port Blair, Nancowry and Nicobar) should designate 10 beds (5 for male and 5 for female) for IP management of TB/DR TB cases until clinical improvement or first smear/ culture negative report. Special training in PMDT to be given to one MO and two staff nurses in the facility.
Expected Outcome	Functional IP facilities for TB/DR TB cases at district hospitals and all the tertiary & secondary care centres At least one MO trained in PMDT at each facility Minimum two staff nurses trained in PMDT services at each facility
Monitoring Indicator	Number of institutions having IP facilities for TB/DR TB management? No of MOs trained in PMDT at each facility? No of staff nurses trained in PMDT at each facility?
Timeline	System need to be established before 31st August 2020

Activity 29	Monthly clinical review of all TB patients
Concept	All TB patients (drug sensitive and drug resistant) on treatment should be clinically reviewed by the medical officer of the PHI at least once in a month to assess progress, detect adverse reactions to drugs, ensure adherence to treatment, manage substance abuse if any, offer 'follow up investigations' on time and to ensure treatment support.
Process	All TB patients to be reviewed clinically by a medical officer once in a month to assess progress, detect adverse reactions to drugs, ensure adherence to treatment, manage substance abuse if any, offer follow up investigations on time, ensure treatment support and timely updation of treatment card. If patient is unable to travel, medical officer should visit him/her at home
Expected Outcome	All TB patients to undergo monthly clinical review. This will improve treatment adherence, lead to early detection of adverse events, prompt management of co-morbidities and reduce mortality due to TB
Monitoring Indicator	Proportion of patients received monthly clinical review

Timeline	Ongoing activity to begin from April 2020
Activity 30	**Comorbidity screening for all TB patients**
Concept	Comorbidity like under nutrition, complications of diabetes, cardiovascular diseases, liver and kidney diseases and COPD are major causes of deaths among TB patients.
Process	All patients should be screening for Body Mass Index (BMI), Haemoglobin, HIV, diabetes, cardiovascular diseases, liver and kidney diseases and COPD. Once diagnosed, patients need to be managed according to NCD treatment protocol. All TB patients to be reviewed clinically by a medical officer once in a month to look for clinical improvement, detect adverse events if any and screen for and manage co-morbidities
Expected Outcome	All TB patients to undergo co-morbidities' screening and management. This will reduce mortality among TB patients
Monitoring Indicator	Proportion of patients underwent screening for co-morbidities
Timeline	Ongoing activity to begin from April 2020
Activity 31	**Special initiative to support guest workers/tourists with TB**
Concept	Though minimal, there are many workers from mainland coming to UTAN for work for short periods of time. The number of tourists visiting the island is more than the number of residents.
Process	All the non resident travellers including guest workers and tourists should be mandatorily screened for TB at all the points of entry (airport and ports)/ work place. Those who declare to have TB will be offered all medical and public health support by the health services machinery of UTAN.
Expected Outcome	Health system knows all guest workers/tourists with TB and all of them receive all the necessary public health actions
Monitoring Indicator	System for screening for TB to be in place while entering the UT for workers/tourists and at work place for guest workers.
Timeline	System need to be established before August 2020

Chapter 5 Additional Budget for TB Elimination Mission (INR)

SI No	Activity	Budgetary Provision	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	UTAN TBE Board	RNTCP ACSM head	10,000	10,000	10,000	10,000	10,000	10,000
2	UTAN TBE Task force	RNTCP ACSM head	10,000	10,000	10,000	10,000	10,000	10,000
3	District level TBE Board	RNTCP ACSM head	12,000	12,000	12,000	12,000	12,000	12,000
	Sub district level TBE Board	RNTCP ACSM head	75000	75000	75000	75000	75000	75000
4	MO TE at all islands	-	0	0	0	0	0	0
5	Training of key officials	RNTCP Training head	1,00,000	75,000	75,000	50,000	50,000	50,000
6	Sensitisation of program officers	RNTCP Training head	25,000	20,000	15,000	15,000	15,000	15,000
7	Sensitisation of policy makers	RNTCP Training head	40000	20000	20000	20000	20000	20000
8	Training of MSW	RNTCP Training head	2,50,000	1,00,000	75,000	75,000	50,000	50,000
9	Training of ASHA	RNTCP Training head	6,00,000	4,00,000	3,50,000	3,50,000	2,50,000	2,50,000

10	Sensitisation other system	RNTCP Training head	50,000	0	30,000	0	20,000	20,000
11	Sensitisation all MOs	RNTCP Training head	1,50,000	0	80,000	0	50,000	50,000
12	Mapping of cases	RNTCP Printing	50,000	0	0	0	0	0
13	Hoardings at all islands	RNTCP ACSM	2,00,000	1,50,000	0	0	0	0
14	Major ACSM activity	RNTCP ACSM	3,50,000	3,50,000	3,75,000	3,75,000	4,00,000	4,00,000
15	AIC Facility	RNTCP Program Management	1,50,000	1,30,000	1,20,000	1,20,000	1,00,000	1,00,000
16	AIC Household	RNTCP Patient Support	1,00,000	1,10,000	90,000	70,000	50,000	30,000
17	AIC Community	RNTCP ACSM	1,50,000	1,80,000	1,75,000	1,5000	1,25,000	1,00,000
18	House to house vulnerability mapping	RNTCP ACSM	25,00,000	0	0	0	0	0
19	Vulnerability data compilation and updation	RNTCP ACSM	10,00,000	1,00,000	1,00,000	80,000	80,000	80,000
20	Quarterly ACF	RNTCP Community Interventions	10,00,000	10,00,000	12,00,000	12,00,000	12,00,000	12,00,000
21	UDST Sputum collection and transportation	RNTCP NGO PP	3,00,000	3,50,000	2,50,000	2,00,000	1,50,000	1,00,000
22	Co-morbidity screening	RNTCP Patient Support	2,00,000	1,50,000	1,00,000	1,00,000	1,00,000	1,00,000

23	Clinical Review of TB patients	RNTCP Patient Support	40,000	30,000	20,000	20,000	20,000	20,000
24	Cross border collaboration	RNTCP NGO PP	2,50,000	1,50,000	1,00,000	1,00,000	1,00,000	1,00,000
25	Tourist/Guest worker surveillance	RNTCP NGO PP	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
26	Work place screening	RNTCP ACSM	6,00,000	6,00,000	6,00,000	6,00,000	6,00,000	6,00,000
27	Surveillance for prevalence of TB	RNTCP Procurement of equipment	2,00,00,000	0	0	0	0	0
28	Vulnerability reduction for individuals	NCD	10,00,000	10,00,000	8,00,000	8,00,000	6,00,000	5,00,000
29	Community intervention for vulnerability reduction	Poverty Alleviation	10,00,000	10,00,000	8,00,000	8,00,000	6,00,000	5,00,000
30	Diagnosis and Management of LTBI	RNTCP Community Interventions	2214000	4490000	4218500	3780000	3371000	3030500
31	IP management of seriously ill DS/DR TB cases	RNTCP Patient Support	15,00,000	7,00,000	5,00,000	3,00,000	3,00,000	3,00,000
Total			**34026000**	**11312000**	**10300500**	**9262000**	**8458000**	**7822500**

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NATIONAL HEALTH MISSION
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