

## **REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME (RNTCP)**

RNTCP has been operationalised in Goa from September, 2004. In the rest of the country, the programme was implemented in phases from 1997, thus covering the entire country by 2006. However, National TB Control programme has been existing in the country since 1962. The programme was thoroughly revised and thus RNTCP came into being in 1997.

Extent of Tuberculosis: Every year, in India 18 lakhs people develop TB disease and about 4 lakhs people die due to TB. India accounts for one fifth of global incidence of TB.

In India every day –

- More than 40,000 people become newly infected.
- More than 5000 develop disease.
- More than 1,000 people die of TB. (2 every 3 seconds)

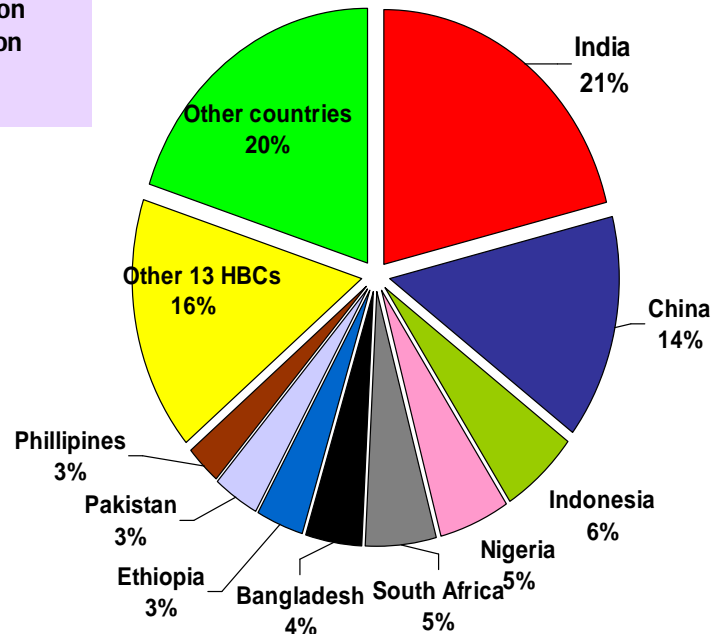
### **GLOBAL BURDEN OF TB**

- Nearly one third of the world's population is infected with TB bacilli, i.e. have latent TB, of these 10% have a life time risk of developing the active disease.
- Poor living conditions, debility and malnutrition predisposes population to disease.
- There are an estimated 9.2 million new cases and 1.3 million deaths reported due to TB, and over 90% of these occur in the low and middle income countries.

## INDIA IS THE HIGHEST TB BURDEN COUNTRY ACCOUNTING MORE THAN ONE FIFTH OF THE GLOBAL INCIDENCE

Global annual incidence = 9.2 million  
India annual incidence = 1.96 million

India is 17<sup>th</sup> among 22 High Burden Countries (in terms of TB incidence rate)



Source: WHO Geneva: WHO Report 2009: Global Tuberculosis Control: Surveillance, Planning and Financing

### TB BURDEN IN INDIA

- India is one of the highest TB burden country globally.
- Nearly 40% of the Indian population is infected with the TB bacillus.
- Each year, 1.9 million new cases of TB occur in the country, of which about 0.8 million are infectious new smear positive pulmonary TB cases.

### Goal of RNTCP

The goal of RNTCP is to decrease mortality and morbidity due to TB and cut transmission of infection until TB ceases to be a major public health problem.

It aims to control TB by detecting and curing sputum smear positive patients thereby interrupting the chain of transmission.

## Objectives of RNTCP

1. To achieve and maintain a cure rate of at least 85% among new sputum smear positive cases.
2. To achieve and maintain detection of at least 70% of such cases in the population.

RNTCP is based on the internationally recommended strategy to control TB known as **DOTS** (Directly Observed Treatment Short course)

## Diagnosis by quality sputum microscopy

In RNTCP there is emphasis on quality sputum examination and it is done in the 20 designated sputum microscopy centres (DMC) as shown below:-

### **North Goa.**

1. CHC Pernem
2. PHC Candolim
3. Asilo Hospital
4. GMC Bambolim
5. TB & Chest Hospital St Inez
6. DTC Panaji
7. PHC Sankhali
8. CHC Valpoi
9. PHC Bicholim
10. CHC Ponda
11. PHC Betki

### **South Goa.**

1. Cottage Hospital, Chicalim
2. DTC Margao
3. MPT Hospital
4. ESI, Hospital Margao
5. CHC Canacona
6. PHC Sanguem
7. CHC Curchorem
8. PHC Balli
9. PHC Quepem

## Provision of treatment

Once the patient is diagnosed as TB by sputum examination, X-Ray or histopathology, patient is put on Directly Observation Treatment (DOT) at a place called the DOT Centre.

DOTS- is made available in more than 1224 places all over state which include Health units, Sub-centres, Anganwadis, NGO's and independent DOT providers. Drugs are made available even through Masjids, Churches and temples.

<b>Year wise</b>	<b>No. of TB Patients Registered for treatment</b>
2005	1731
2006	2037
2007	2105
2008	2007
2009	1966
Up to 3 Q 2010	1644

The sputum positive patient put on treatment normally becomes sputum negative by 2 or 3 months (Conversion). This is an important indicator of the treatment success. It is to be more than 90%. Patients registered in particular quarters are evaluated in the next quarter. Quarter wise conversion has been as follows.

<b>Quarters</b>	<b>Sputum conversion Rate</b>
4Q04	83%
1Q05	81%
2Q05	84%
3Q05	78%
4Q05	87%
1Q06	84%
2Q06	81%
3Q06	85%
4Q06	83%
1Q07	81%
2Q07	91%
3Q07	89%
4Q07	91%
1Q08	89%
2Q08	90%
3Q08	93%
4Q08	90%
1Q09	89%
2Q09	92%
3Q09	92%
4Q09	93%
1Q10	96%
2Q10	87%
3Q10	91%

Cure rate is a critical indicator and is the percentage of new sputum positive patients remaining sputum negative at the end of treatment. This should be more than 85%. This is evaluated after one year of treatment. Quarter wise cure rate for Goa State has been as follows:

<b>Quarters</b>	<b>Cure rate (%)</b>
1Q04	-
2Q04	-
3Q04	88
4Q04	73
1Q05	73
2Q05	68
3Q05	62
4Q05	73
1Q06	70
2Q06	69
3Q06	74
4Q06	74
1Q07	74
2Q07	80
3Q07	80
4Q07	81
1Q08	77
2Q08	82
3Q08	87
4Q08	81
1Q09	77
2Q09	82
3Q09	91%

Note: The Cure of patients registered 12 to 15 months back.

## Performance Indicators of RNTCP for 2010

	<b>Expect-ed Norms</b>	<b>1Q09</b>	<b>2Q09</b>	<b>3Q09</b>	<b>4Q09</b>	<b>1Q10</b>	<b>2Q10</b>	<b>3Q10</b>
Sputum Conversion rate of NSP Patients	<b>(&gt;90%)</b>	90% (139/155)	89% (128/144)	91% (153/168)	93% (145/156)	96% (171/179)	87% (164/188)	91% (171/188)
Cure rate of new smear positive cases	<b>(&gt;85%)</b>	77% (132/171)	82% (137/168)	86% (121/140)	86% (133/155)	83% (119/144)	86% (143/167)	91% (142/156)
NSP Case Detection rate	<b>(70%)</b>	43%	50%	46%	43%	56%	56%	64%
Total Case detection Rate	<b>(150/lakh)</b>	116	121	116	115	132	119	136