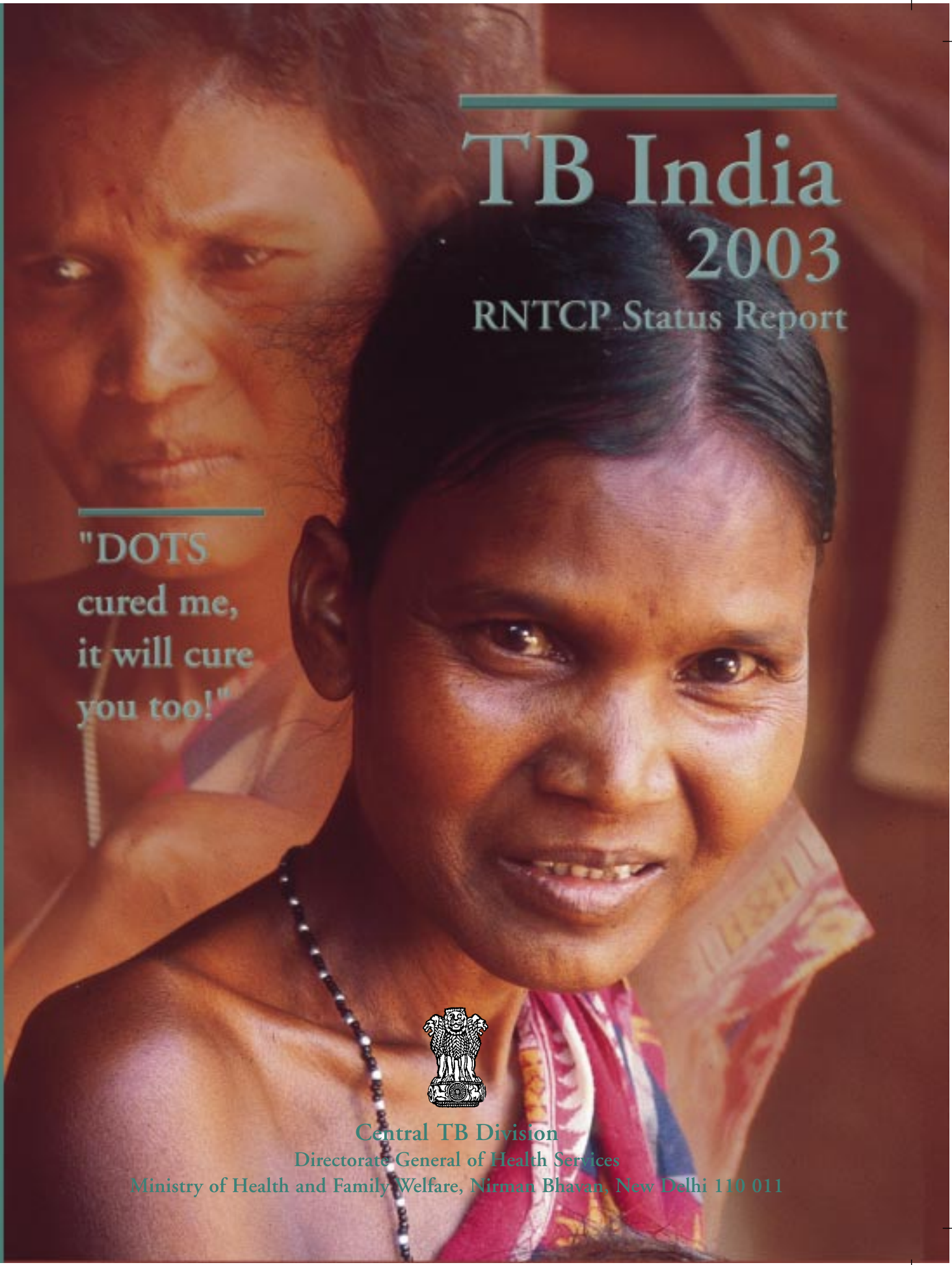

Central TB Division
Directorate General of Health Services
Ministry of Health and Family Welfare, Nirman Bhavan, New Delhi 110 011

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"The successive reports from India on the progress of the national DOTS programmes for TB have astonished and delighted me. All concerned deserve the greatest credit for facing up to this enormous challenge with such speed and such success. India is an example to the world."

— Sir John Crofton

Foreword

India today accounts for nearly one third of the global TB burden. Though the disease is nearly hundred percent curable, yet many people die of TB every year. It is perhaps the only disease that kills more adults than any other infectious disease. Over the years it has become one of the most serious impediments to sustained human development in the country. Combating the disease has been a challenge faced by the health practitioners and the policy makers in the country. The problem gets aggravated due to the close link between TB and poverty.

Over the years, the medical fraternity in the country has successfully devised strategies to combat TB through the Directly Observed Treatment, Short-course (DOTS) strategy to TB patients implemented as the Revised National Tuberculosis Control Programme (RNTCP) in India. The strategy has borne fruit. The DOTS programme now covers more than half of the country and it is the second largest Programme in the world. The Government of India is firmly committed to provide DOTS services to nearly 850 million of the country's population by 2004 and to the entire country by 2005.

Providing quality diagnosis and treatment of TB in India is a remarkable international public health success story. Each month more than 50,000 patients are being initiated on treatment under the RNTCP. In 2001, the Programme treated more than 470,000 cases—more than any country in the world in a single year. During 2002, over 620,000 TB cases were initiated for treatment. Till date, the Programme has initiated over 1.6 million patients for free treatment, thus saving additional 290,000 lives. I am happy that despite a rapid expansion of the Programme, the quality of both diagnosis and treatment has not deteriorated.

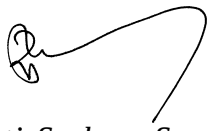
This year's theme for the World TB Day "People with TB" and the slogan

Foreword

"DOTS cured me—it will cure you too" is particularly relevant. It emphasizes the importance of including cured TB patients as advocates in efforts to control TB and to banish the stigma attached to the disease. The theme stresses the need to involve people with TB as equal partners in our efforts to achieve global TB control. The theme supports case detection and DOTS expansion, urging stakeholders to accelerate action which is crucial if we are to reach to global targets, 70% detection of infectious TB cases and an 85% cure rate.

While congratulating all those associated with the Programme I would like to emphasize that there is room for everyone to contribute to the Programme. Through education, awareness building and social mobilization, each one of us can play a proactive role of increasing awareness about the disease and measures needed to combat it. It is only working together as a community that we can create people-friendly delivery systems for tackling the disease effectively.

I am glad that an annual report of the TB Programme is being published for the third consecutive year. I hope the publication of this report will facilitate in sharing of experiences and achievements of the Programme amongst those who are confronting TB in India and the world.

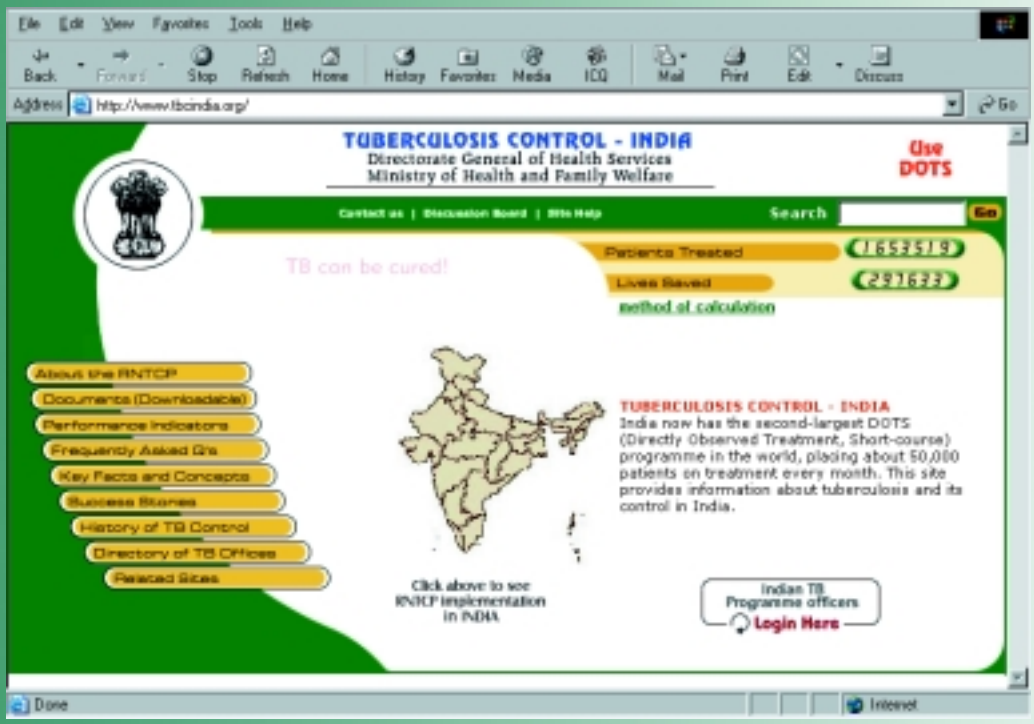


Shrimati Sushma Swaraj
Union Minister of Health and Family Welfare

TB Facts

- Each year, nearly 2 million people in India develop TB and over 450,000 die from it.
- TB is a major barrier to economic development, costing India Rs 12,000 crore (US$ 3 billion) a year.
- Directly Observed Treatment, Short-course (DOTS) is the most cost-effective health intervention available for TB control.
- The Revised National TB Control Programme (RNTCP), based on the principles of DOTS, now covers 60% of the country's population. It has initiated more than 1.6 million patients on treatment, saving 290,000 additional lives.

For more information, visit our website: *www.tbcindia.org*



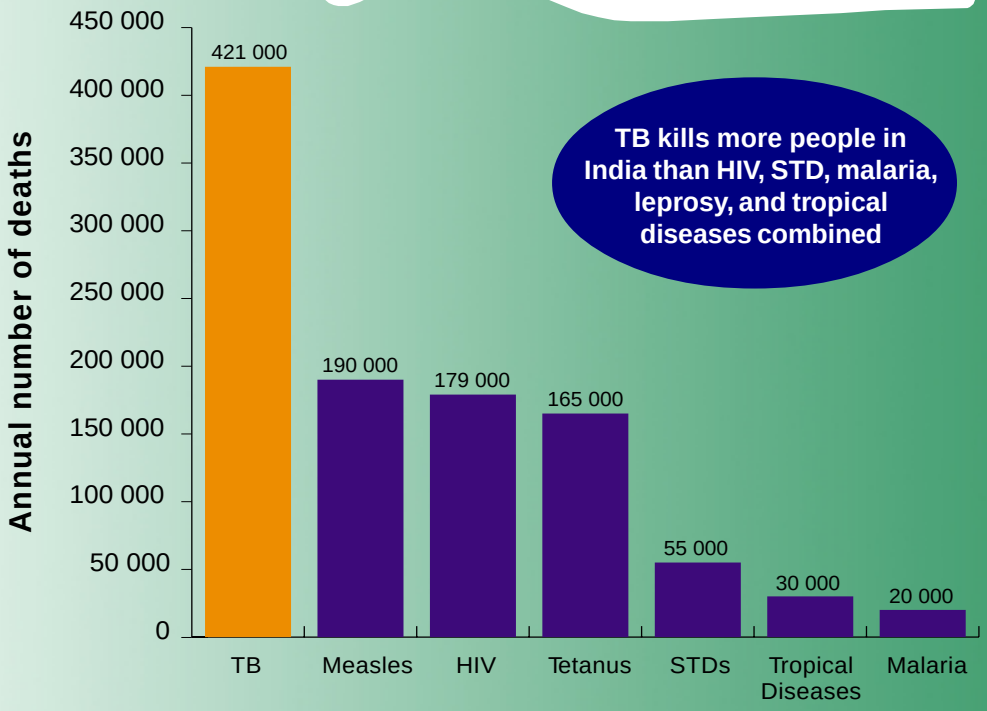
Burden of TB in India

Social Burden

- TB kills more women than all causes of maternal mortality combined
- More than 100,000 women are rejected by their their families on account of TB
- More than 300,000 children leave school to work as a result of parental TB

Economic Burden

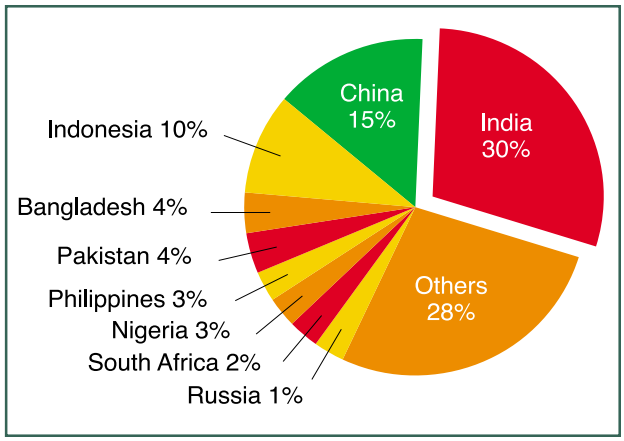
- Direct and indirect costs of TB amount to Rs 12,000 crore (US$ 3 billion)/year
- Direct costs amount to Rs 30 crore (US$ 300 million)
- 100 million productive work days lost due to TB



Burden of TB

Tuberculosis (TB) is one of the commonest causes of death among adults despite being nearly 100% curable.

- Each year, over 450,000 people die of TB in India.
- TB affects the most productive age group of 15–54 years, thus affecting the economic development of the country.
- On average, 3–4 months of work time are lost if an adult has TB, resulting in the loss of 20–30% of annual household income. An average of 15 years of income is lost if any individual dies from the disease.



India alone accounts for almost one third of the global burden of TB.

"Indirect" costs include:

- loss of employment
- travel to health facilities
- sale of assets to pay for treatment-related costs
- funeral expenses and lost productivity from illness and premature death

Social Burden

- Social stigma is of major concern to women with TB in India as they often lose their status as a wife or mother.
- TB in the family also has serious implications for children.

Poverty and TB

- Although the poor and malnourished are more vulnerable to TB, it spreads across all socio-economic strata.
- Poverty and TB form a vicious circle; TB decreases a person's capacity to work and adds the burden of treatment expenses.
- The poor seek and receive inadequate health care that often inhibits the detection of TB and adds to the impact of the disease.
- Of people infected with TB disease, more than 80% are in

the economically productive age group. Thus, the economic and social costs to TB patients and to their families are enormous.

HIV and TB

In India, there are an estimated 3.97 million people living with HIV. Amongst AIDS cases, it is estimated that approximately 60% have TB disease. The potential social and economic burden of the TB and HIV co-epidemic could overwhelm the resources of a developing country such as India.

Link between HIV and TB

TB is the most common opportunistic disease in people living with HIV. The virus breaks the immune system down making people living with HIV highly susceptible to TB. HIV is the most powerful risk factor for progression from TB infection to TB disease with the HIV epidemic leading to a doubling or tripling of TB cases in some countries. TB in turn accelerates the progression of HIV to AIDS and shortens the survival of patients with HIV infection. TB and HIV are, therefore, closely interlinked.

Treatment

Directly Observed Treatment, Short-course (DOTS) is equally effective in treating TB in people living with HIV as well as those who do not have HIV. DOTS cures patients and results in longer and relatively healthier lives. Recognizing the serious threat posed by HIV/AIDS and TB, the Government of India (GOI) is strengthening the collaboration between the TB and AIDS control programmes to ensure better management of people living with HIV and TB.

Coordination between CTD and NACO

An action plan on HIV/TB programme coordination has been formulated at the centre between the Central TB Division (CTD) and the National AIDS Control Organization (NACO). The purpose of the coordination is to ensure optimal synergy between the two programmes for the prevention and control of both diseases through:

1. Sensitization of key policy makers regarding the need for collaboration.

An estimated 50–60% of people living with HIV in India will develop TB in their lifetime as compared to 10% in persons who do not have HIV

A patient being counselled at a voluntary counselling and testing centre, New Delhi

Photograph courtesy NACO, New Delhi

2. Service delivery coordination and cross-referral through training, provision of additional services, and establishment of voluntary counselling and testing centre VCTC-RNTCP linkages.
3. Expansion of community outreach of both programmes by sensitization and involvement of NGOs and private practitioners.
4. Infection control to prevent the spread of TB in facilities caring for persons living with HIV, and to prevent the spread of HIV through safe injection practices in the RNTCP.
5. Joint information, education, communication (IEC) efforts, particularly with regard to de-stigmatization and ensuring confidentiality of HIV- and TB-related information.

Why DOTS

Government commitment

Sputum microscopy

DOTS

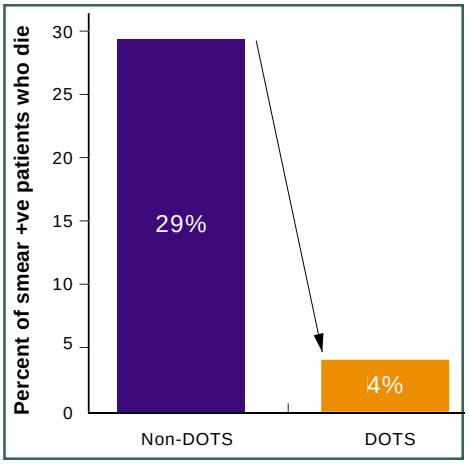
Recording and supervision

Short-course chemotherapy under directly observed treatment

Uninterrupted supply of anti-TB drugs

Why DOTS?

Directly Observed Treatment, Short-course (DOTS) was formally launched as a strategy of the Revised National Tuberculosis Control Programme (RNTCP) in 1993 as a pilot project. A full fledged Programme started in 1997 and is being expanded in a phased manner. Since then DOTS has been widely advocated and successfully applied. It has increased coverage 30-fold and increased cure rates to almost 85%.



In India, DOTS cuts TB-deaths 7-fold

DOTS is the most effective strategy available for controlling TB. The emphasis of the strategy is that the patient is the VIP of the Programme and the responsibility of ensuring regular and complete treatment of the patient falls on the health system. It is important for the patient and the health provider to forge a relationship. This will help build patient confidence in the public health system.

The five key components of DOTS are:

1 Political commitment to sustained TB control activities.

2 Case detection by sputum smear microscopy among symptomatic patients.

3 Standardized short-course chemotherapy regimens for all TB cases, to be given under direct observation.

4 Regular, uninterrupted supply of anti-TB drugs.

5 Systematic recording and reporting system that allows assessment of treatment results for each and every patient and of the whole TB control programme.

TB is curable and DOTS is the strategy for cure

Chief Minister of Andhra Pradesh, Chandrababu Naidu, giving anti-TB drugs to a patient

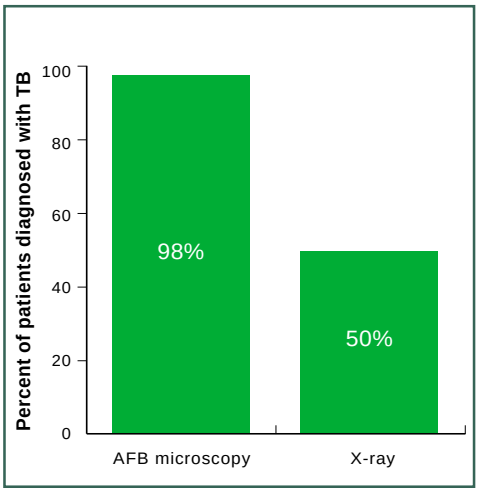
Why political commitment is essential?

Political commitment is essential to implement the other four components of DOTS. Commitment is measured in terms of funds granted, human resources and administrative support. The RNTCP bears testimony to the commitment of the government.

Why detection by sputum microscopy?

Sputum microscopy is the best tool for detection as it provides information on the infectiousness of the patient, aids in categorization of the patient for treatment and is an objective method to monitor the patient's progress.

Other advantages of sputum microscopy are that it is relatively easy to perform and less expensive when compared to X-ray. The result is available within 2 days and correct treatment can be started without delay.



Sputum microscopy is more specific than X-ray for diagnosis

Why short-course chemotherapy under direct obervation?

Short-course chemotherapy (SCC) regimens reduce the duration of treatment and facilitate directly observed treatment (DOT) for both the patient and health worker. SCC given under DOT achieves high success rates and reduces relapse rates.

Under optimal conditions, results of treatment without observation can give 60% success rate, whereas direct observation results in 85–95% success rate.

DOT ensures that the patient adheres to treatment. The responsibility of treating the patient and ensuring that the patient does not miss even a single dose falls on the health provider. DOT does not just mean supervised swallowing but the building of a human bond with the patient. It means that the *right drugs* in the *right doses* are taken at the *right interval* for the *right duration*.

Why is it necessary to have an uninterrupted supply of anti-TB drugs?

An uninterrupted supply of anti-TB drugs ensures patient adherence, patient develops faith in the reliability of the system, and prevents the development of multi-drug resistant tuberculosis (MDR-TB).

- Controlled clinical trials show intermittent treatment to be as effective as daily treatment
- Intermittent treatment causes slightly less toxicity than daily treatment
- Intermittent treatment must *only* be given in a programme of DOT

Why is monitoring and supervision a must?

The patient is the VIP of the Programme. Monitoring, support and supervision of each patient is important to achieve the targets and objectives of the Programme. It also ensures the health care provider's accountability.

This results-oriented system enables quality assurance of

"India has shown the world how quality DOTS programmes are key to controlling the tuberculosis epidemic. The Indian Government has shown great commitment and foresight in establishing a national DOTS programme. India's DOTS strategy will undoubtedly be one of this century's most significant public health achievements."

—Dr JW Lee, Director General Designate, WHO, Geneva

programme implementation, and the effective treatment and cure of TB patients. Data collected as part of TB programme management is also a useful indicator of access to and quality of the general health system.

Treatment

The World Health Organization (WHO)-recommended treatment regimen for DOTS is SCC. It is divided into two phases—the intensive and continuation phases.

In India:

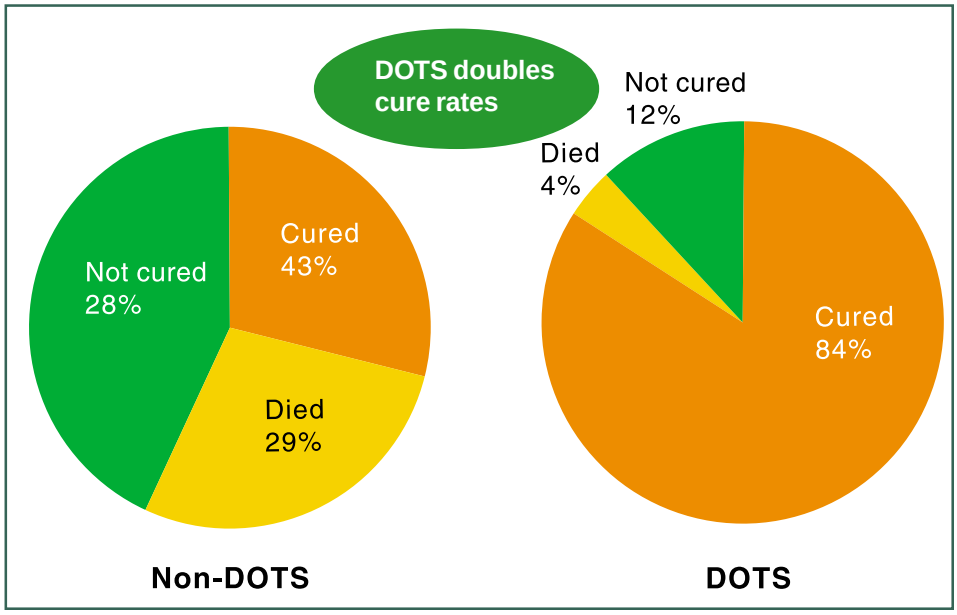
- In the intensive phase (2–3 months)—each dose is administered under direct observation.
- In the continuation phase (4–5 months)—at least one dose given thrice weekly is administered under direct observation.

The actual treatment regimen and duration administered depends on the category of treatment of the patient.

Category of treatment	Type of patient	Regimen
Category I	New sputum smear-positive Seriously ill sputum smear-negative Seriously ill extra-pulmonary	$2H_3R_3Z_3E_3/4H_3R_3$
Category II	Previously treated Sputum smear-positive relapse Sputum smear-positive failure Sputum smear-positive treatment after default	$2S_3H_3R_3Z_3E_3$ $/1H_3R_3Z_3E_3$ $/5H_3R_3E_3$
Category III	New sputum smear-negative, not seriously ill Extra-pulmonary, not seriously ill	$2H_3R_3Z_3/4H_3R_3$

H: isoniazid; R: rifampicin; Z: pyrazinamide; S: streptomycin; E: ethambutol

Note: The number before the letters refers to the number of months of treatment. The subscript after the letter refers to the number of doses per week



Source:Joint TB Programme Review India, February 2000. Delhi: WHO, 2000

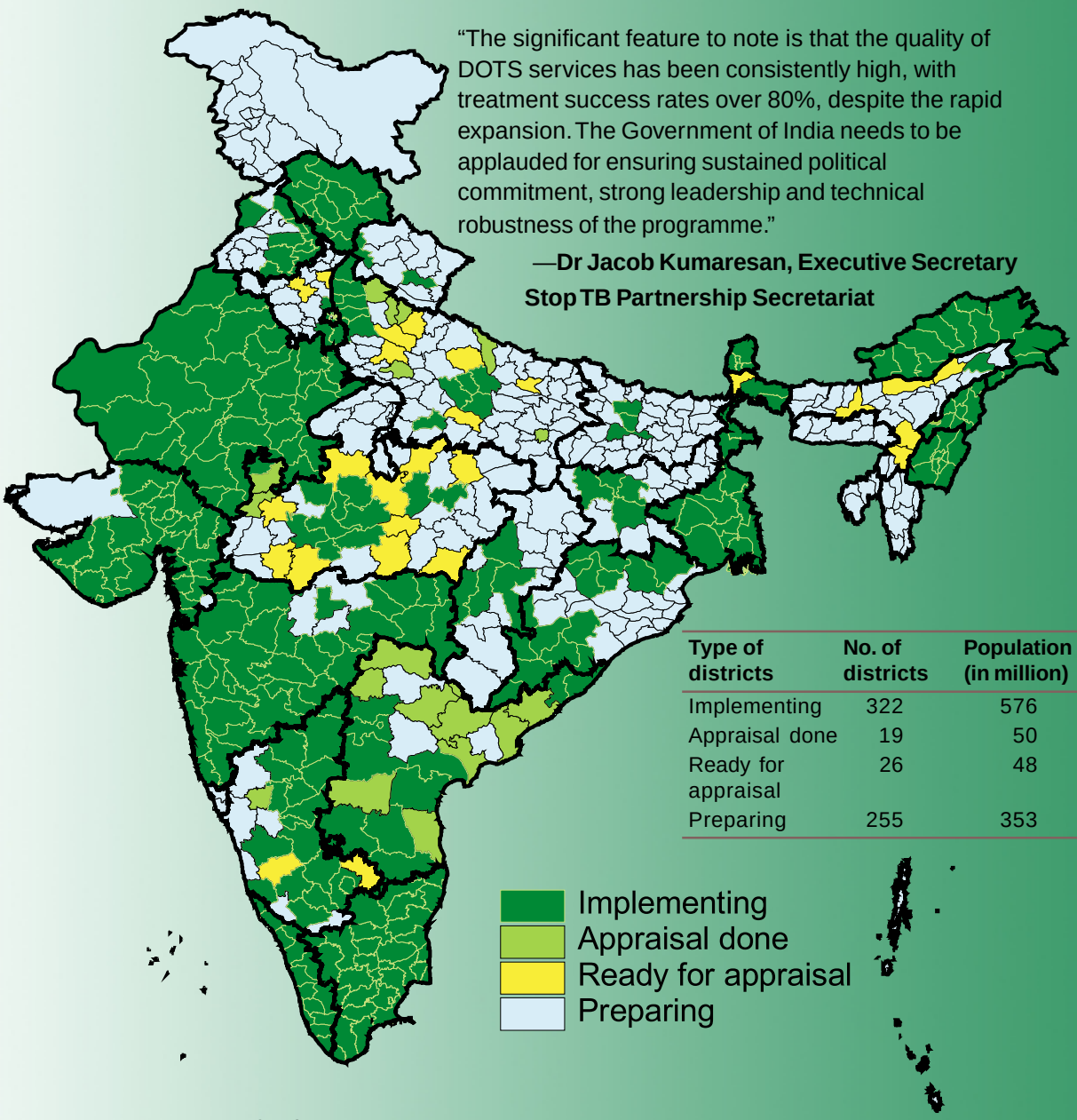
Benefits of DOTS

- DOTS more than doubles the accuracy of TB diagnosis
- DOTS results in success rates of up to 95%
- DOTS prevents the spread of tuberculous bacilli, thus reducing the incidence and prevalence of TB
- DOTS helps in alleviating poverty by saving lives, reducing the duration of illness and preventing new infectious cases; thus, losing fewer years of employment
- DOTS improves the quality of care and overcomes stigma
- DOTS prevents treatment failure and the emergence of MDR-TB by ensuring patient adherence and an uninterrupted supply of anti-TB drugs
- DOTS lends credence to TB control efforts
- DOTS provides a model for strengthening health services

Status and Expansion of RNTCP in India

"The significant feature to note is that the quality of DOTS services has been consistently high, with treatment success rates over 80%, despite the rapid expansion. The Government of India needs to be applauded for ensuring sustained political commitment, strong leadership and technical robustness of the programme."

—Dr Jacob Kumaresan, Executive Secretary Stop TB Partnership Secretariat



Type of districts	No. of districts	Population (in million)
Implementing	322	576
Appraisal done	19	50
Ready for appraisal	26	48
Preparing	255	353

RNTCP status as of Feburary 15, 2003

RNTCP: Status and Expansion

The Revised National Tuberculosis Control Programme (RNTCP) is an application of the DOTS principles to the Indian context. Following a comprehensive review of national TB control activities in 1992, the GOI adopted the RNTCP using the WHO-recommended DOTS strategy. RNTCP was implemented in pilot areas at the beginning of 1993. Large-scale expansion of DOTS began in late 1998.

From a coverage of 18 million in mid-1998, the RNTCP has now expanded to cover a population of more than 600 million. The GOI plans RNTCP expansion to cover 85% of the country by 2004 and to bring the entire country under RNTCP by the year 2005 in order to meet the global targets for TB control.

Present Coverage

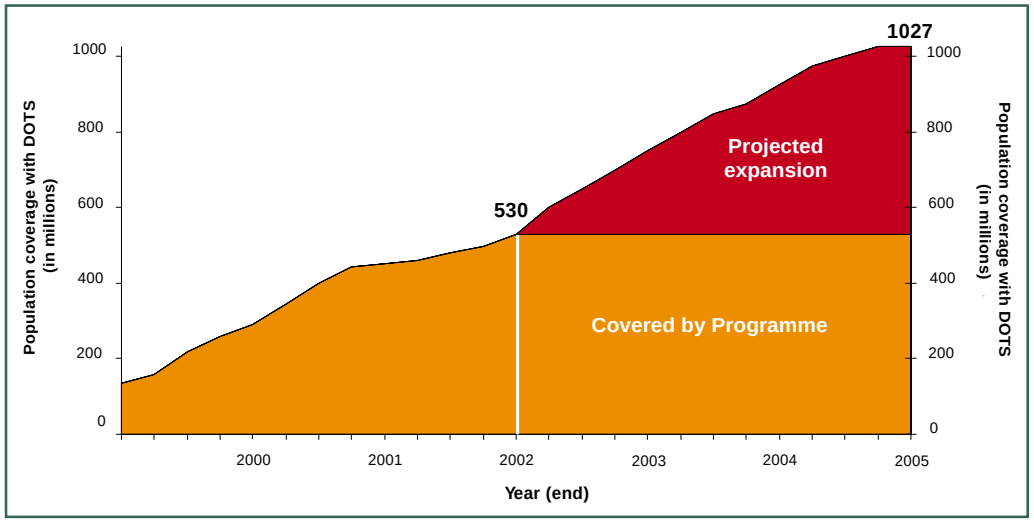
By March 2003, more than 600 million population in over 300 districts in 25 states/Union Territories will have access to DOTS. Nine states/Union Territories are fully covered under the RNTCP.

RNTCP Accomplishments

- More than 30-fold expansion of DOTS in the past 4 years.
- Second largest Programme in the world in terms of population coverage and the largest in terms of patients initiated on treatment.
- One of the fastest DOTS expansion in the world to have taken place.
- In 1999 alone, India accounted for more than one third of the global increase in DOTS coverage.

RNTCP Implementation Time-line

- 1992: National review of the TB programme. DOTS strategy adopted and RNTCP developed.
- 1993: RNTCP pilot tested in a population of 18 million.
- 1997: soft loan of Rs 604 crores (US$ 142 million) obtained from the World Bank to implement RNTCP in one third of the country and to prepare the rest of the country for adopting RNTCP at a later date.
- 1999: RNTCP expanded 7-fold to become the second largest programme in the world.
- 2001: 450 million population covered under RNTCP.
- 2002: More than half of the country (530 million) covered under RNTCP.
- 2004: Population of 850 million planned to be covered under RNTCP.
- 2005: Entire country planned to be covered under RNTCP.



Multiyear DOTS expansion plan 2002–2005

- In 2000, 2001 and 2002, India accounted for more than half of the global increase in DOTS coverage.
- In 2002, more than 620,000 patients were initiated on treatment, more patients under DOTS than any other country in the world.
- To date, the RNTCP has placed more than 1.6 million patients on treatment and prevented more than 290,000 additional deaths.

Progress Made in 2002

Population/services

- Population coverage increased from 450 million (end 2001) to 530 million (end 2002).
- In 2002, India initiated more than 620,000 patients on treatment under RNTCP.
- Each month, more than 50,000 patients are being initiated on DOTS.
- New smear-positive detection in DOTS area increased from 55% in 2001 to 59% in 2002.
- More than 8 out of 10 patients are successfully treated.
- More than 254,000 health workers cumulatively have been trained.

Funds

- Funds for full state-wide RNTCP coverage in Orissa and Andhra Pradesh committed by DANIDA and DFID, respectively.
- Global TB Drug Facility assistance for drugs for a population of 200 million granted.

- The Global Fund for AIDS, TB and Malaria (GFATM) will provide financial assistance in:
  - Chattisgarh, Jharkhand and Uttaranchal—Round 1 of GFATM/additional 56 million population
  - Bihar and Uttar Pradesh—Round 2 of GFATM/additional 110 million population
- USAID, through WHO, will assist state-wide implementation of RNTCP in Haryana.

Others

- Through meetings of professional bodies and medical college workshops, consensus has evolved that DOTS is the most effective strategy to control TB in India.
- At a national level workshop of medical colleges identified as RNTCP nodal centres, a plan of action for the establishment of RNTCP/medical colleges task forces in the states/zones was developed.
- An internal evaluation of RNTCP was conducted.

Future Directions

- Maintain quality of RNTCP implementation
  - Establish better patient-friendly services
  - Ensure uninterrupted drug supply
  - Train and re-orient staff of RNTCP
- Continue RNTCP expansion
  - Mobilize resources for expansion
- Strengthen supervision, monitoring and evaluation
  - Conduct in-depth reviews and periodic internal evaluations of selected districts
  - Achieve complete electronic connectivity of all RNTCP-implementing districts and states
- Proactively involve other sectors in planning, policy-making, and

"The programme demonstrates that even limited resources, when wisely allocated, can make a huge difference in the health of many. The leaders and backers of this programme and the more than 200,000 personnel on the front lines of care deserve congratulations for their work. But even without external recognition, the sense of fulfillment that comes from seeing a patient whose life one has made better is one of the unique rewards of our profession; reading the story of this success in India makes us all proud."

—Jeffrey M Drazen. Editorial.
***New England Journal of Medicine* 2002; 347 (18):1444**

Review of RNTCP in Madhya Pradesh by Secretary (H), GOI; along with Principal Secretary, Goverment of MP; Joint Secretary, GOI; December 2002

implementation of RNTCP

- Public sectors (ESI, CGHS, Railways, Sanatoria)
- Medical colleges
- Private practitioners/NGOs

- Start service delivery in the already approved areas
- Accelerate the preparatory activities
- Strengthen the State TB Cells and State TB training and Demonstration Centres
- Operationalize the RNTCP/ medical colleges Nodal Task Forces for effective involvement of medical colleges in RNTCP.

Involvement of Railways, West Bengal

States that have Achieved Full Coverage

Delhi

Delhi was the first state to be fully covered under the RNTCP.

Total population 13.8 million; 20 districts

- 1996—pilot DOTS project started in 2 chest clinics
- October 2001—achieved full coverage

Special features

- Service delivery based on a network of chest clinics, not district TB centres.
- Large migratory population, leading to difficulty in case holding and achievement of success rate target.

Tamil Nadu

Total population 62 million; 30 districts

- 1999—RNTCP implemented in 2 districts
- December 2001—full coverage achieved

Special features

- IEC activities such as street plays, *villupattu* conducted.
- One block in each district studying the health-seeking behaviour of smear-positive cases.

Arunachal Pradesh

Total population 1 million; 13 districts

- December 2002—began implementing in all districts
- December 2002—achieved full coverage

Sikkim

Total population 540,000; 4 districts

- March 2002—began implementation
- March 2002—achieved full coverage

Special features

The strength of the state is a good health infrastructure, trained and dedicated staff, and effective management of drugs and equipments.

Union Territory of Chandigarh

Total population 901,000; 1 district

- January 2002—began implementation
- January 2002—achieved full coverage

Special features

- Compact population
- Good infrastructure
- Public and administrative support
- Large migrant population

Manipur

Total population 2.4 million; 9 districts

- 1998—started RNTCP service delivery in 2 districts in 3rd quarter
- December 2002—achieved full coverage

Special feature

The state has trained manpower and good infrastructure.

Rajasthan

Total population 56 million; 32 districts

- 1998—pilot project began in 2 districts
- 2000—achieved full coverage

Special features

- Operational research being carried out which will help in improving and providing quality service. Various research issues have been identified. "A Study on Prevalence of Chest Symptoms among Patients Attending Health Facilities" has been completed.
- The first issue of the quarterly

Appraisal team in Katni, Madhya Pradesh

RNTCP News Bulletin was released on 20 July 2002.

Himachal Pradesh

Total population 6 million; 12 districts

- 2000—began implementation in 3 districts
- December 2001—achieved full coverage

Special feature

DOT is provided in all health institutions in the state including Ayurvedic Health Centres, ESI Hospitals and Dispensaries.

Kerala

Total population 31 million; 14 districts

- June 2000—began implementation in 1 district
- December 2000—achieved full coverage

Special feature

COMBI Plan is being pilot tested with technical assistance from CTD and Stop TB Partnership, Geneva.

Success Stories

You can contribute to the success of the DOTS strategy:

- As a citizen—by being a DOT provider
- As NGOs and private practitioners—by referring patients suspected with TB, treating TB patients, and by being a part of RNTCP
- As a cured TB patient—by telling people how you benefited from DOTS and about the free services available under RNTCP

Global Theme and Slogan for World TB Day

The theme for World TB Day 2003 is People with TB, and the slogan is DOTS cured me—it will cure you too! The theme and slogan emphasize the urgency of educating the public about DOTS, getting people with TB diagnosed and treated in a DOTS programme.

This year's campaign focuses on transforming cured patients into advocates for TB control. They are the living proof that TB can be cured and that DOTS works!

These cured patients have the potential to be powerful educators and spokespersons for RNTCP. They also have the potential to encourage others to visit DOTS clinics for diagnosis and treatment. In addition, involving cured patients will help in reducing the social stigma attached to TB.

A cured TB patient addressing a gathering on World TB Day 2002 in Solan, Himachal Pradesh

These are only some of the many stories of how the Programme has saved lives and provided hope. These are stories of how we can all make a difference if we try.

West Bengal

A politician as a DOT provider

Councillor of Bhirbhum district giving DOT to a patient

Mr Gurupada, a politician by profession, is a DOT provider. He provides DOT to 4 patients from a local club which has now become a DOT centre. Local patients are very happy as they no longer have to travel long distances to receive treatment. He also helped retrieve a patient who missed the doses. This goes to show how anyone in the community can contribute to TB control.

Orissa

A cured TB patient

Lata Naik before and after treatment

Lata Naik had symptoms of cough and fever after her delivery. Despite being treated by a private practitioner for TB, she was no better. Her husband then took her to the peripheral health institute where she was successfully treated with DOTS. Today, her baby and she are both well and healthy, thanks to the Programme.

Photographs courtesy DANTB, New Delhi

Maharashtra

A religious leader as a DOT provider

Renuka Das Mantekar is a lifesaver in the Trambakeshwar temple of Nashik district. He is also a cured TB patient. Apart from saving people from drowning during their holy dip, he creates awareness about TB among the devotees. He often uses a loudspeaker to give messages on DOTS and RNTCP to thousands who throng the temple. He is a shining example of a cured patient being an advocate for the Programme.

Chandigarh

A cured patient as a DOT provider

Sarwan Kumar (left) giving DOT to a patient

Sarwan Kumar, a labourer, lost both his parents to TB. His brother and he both contracted TB from their parents. As he had lost both his parents to TB, he was determined to fight the disease. He religiously followed his treatment schedule and was cured. He then persuaded his brother to do the same.

Presently, both the brothers refer patients for diagnosis and work as DOT providers. Sarwan Kumar not only ensures that his patients take their medicines but also motivates them to live a disease-free life by taking regular medicines and follow-up sputum examination. He is a strong advocate of DOTS.

Kerala — STS as a DOT provider

Krishnan, a tribal, was diagnosed as a case of sputum-positive pulmonary TB and put on treatment. After stopping treatment twice, the Senior Treatment Supervisor (STS) again contacted Krishnan only to be told that he did not need any medicines as God would cure him. Krishnan had recently joined a religious group.

The STS made several attempts to bring him back on treatment. As a last resort, the STS told him that he had seen God in his dream and had given him medicines for Krishnan as a gift. He also told him that not only had God specifically mentioned Krishnan's name but also asked him to take the medicines regularly else God would be angry with him. From that day onwards Krishnan took the treatment regularly. It was the ingenuity of the provider that helped retrieve a patient and save his life.

Gujarat — RNTCP staff team of DOT providers

This is a story of dedicated health staff members. Dahod has a difficult and hilly terrain, making it difficult for patients to reach their health centre for treatment. So the staff of Dahod came up with the solution that all of its staff would provide DOTS to patients living close to their homes. This helped patients reduce the time and money spent on collecting the drugs from the District TB Centre. As a result there has been a decrease in the default rate of patients in Dahod district.

Staff of Dahod

The entire staff is *voluntarily* providing DOT to the patients from their homes which is more convenient to the patients both in terms of time and location. This was possible because of the constant motivation and support of the District TB Officer, Dr Mrs Rathod. Their mission "To cure our patients and improve our programme further".

Uttar Pradesh — A cured patient

Anil with his family and DOT provider

Anil is a cured TB patient but there was a time when he nearly died of TB. The cost of treatment was too much for Anil to bear with a family of seven to feed. Then, his employer told him about DOTS and RNTCP. Today, he is cured and believes that TB patients should not lose heart and discontinue treatment. He says that the programme took care of even the smallest of details such as disposable needles or a glass of water. He did not have to spend any money on treatment. His DOT provider would come to the house to look for him if he missed a single dose. DOTS was the best thing that could have happenend to him.

Delhi — DOTS saved him

Baidnath receiving medicines from his DOT provider

Baidnath was diagnosed with TB but kept missing his appointments or medicines were not available when he was being privately treated. He did not inform his employers due to fear of discrimination. Eventually he discontinued treatment.

When he had a relapse of TB, he was put on DOTS under RNTCP. Today, he is cured. He believes he was saved only because of directly observed treatment and monitoring.

DOTS cured me, it will cure you too!

RNTCP Activities in 2002

"Currently, about 500 NGOs and nearly two thirds of medical colleges in RNTCP implementing areas are providing RNTCP services. This is not enough and there is room for more participation and involvement. . . .

Reliable means for detection and cure of tuberculosis is within our reach. We have the technical skills, manpower and resources to conquer this disease. I take this opportunity to request each and every one of you to join hands together and spare no efforts to win the battle against tuberculosis."

—Dr SP Agarwal, Director General of Health Services, Ministry of Health and Family Welfare, Government of India, (TAI Conference) Goa 2002

HIV/TB Coordination Activities

- Coordination between the RNTCP and National AIDS Control Programme (NACP) has started in the 6 highly HIV/AIDS prevalent states of Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu. At a later stage, this will be expanded to cover the entire country.
- Sensitization workshops for key policy makers have been held in these 6 States.
- Supplementary training material on HIV/TB has been prepared at the central level and reciprocal training of service providers of both programmes has been conducted.
- Referral linkages between VCTCs and RNTCP sites are being established and reporting of HIV/TB cases at the level of VCTCs has already started.
- NGOs participating in the NACP are being encouraged to open DOTS centres under RNTCP.

The future challenges are to strengthen the existing coordination at the district level to ensure full RNTCP coverage in these states without compromising on its quality and to scale up the HIV/TB programme collaboration to other states with medium- and low-prevalence of TB.

Internal Evaluation of the RNTCP

In 2002, a systematic internal evaluation of the status of RNTCP implementation was conducted in 35 randomly selected districts. The evaluation was conducted by16 teams, consisting of Programme staff, who interviewed randomly selected 411 patients and key RNTCP staff, in addition to reviewing records and reports.

Key findings of the evaluation were that almost 99% of patients received free drugs and free microscopy services, while nearly three-quarters (73%) of patients received treatment under direct observation during the intensive phase as per RNTCP guidelines. Smear conversion rates and cure rates reported to the CTD were consistent with those in the Tuberculosis Unit (TU) reports and the TB registers.

Inconvenient services and low awareness about TB on the part of the patients were strongly associated with non-observation of treatment—stressing the need for further strengthening of supervision and monitoring, and ensuring the full participation of all Medical Officers in the programme.

CTD and state authorities will conduct similar reviews of randomly selected districts using a standardized format developed for this purpose.

Involvement of the Private Sector

Private practitioners

India has the largest private sector in the world which is used by rural and urban patients. Private practitioners (PPs) are often the first point of contact for people with TB and have an important role in the RNTCP. They can support the RNTCP by:

- Ensuring prompt referral of patients with cough for 3 weeks or more for sputum examination.
- Providing reassurance that TB is curable.
- Treating TB patients with RNTCP-recommended drug regimens.
- Administering rifampicin-containing regimens only if treatment can be directly observed and completion ensured.
- Involvement in RNTCP through one of the approved GOI schemes.

Hoshangabad: RNTCP Preparations

Hoshangabad district has demonstrated how a dedicated programme officer, good administrative support, and excellent teamwork can work wonders in completing RNTCP preparatory activities in just 4 months.

DOT in Hoshangabad

Activities undertaken

- Preparatory activities given top priority, time-bound and reviewed every month.
- Civil works completed in just one month by the Public Works Department.
- A micro plan prepared for training of Medical Officers (MOs), laboratory technicians and field workers.
- MOs trained at the state level within 3 months.
- Training of each batch at the TU was supervised by district headquarter officials to ensure training standards were being met.
- Well-qualified and motivated contractual workers selected.

More than 1500 private practitioners are involved in RNTCP

Maharashtra

Patients receiving DOT from PPs

- Navi Mumbai (25–30% of district total); Thane Municipal Corporation (20%); Pimpri Chinchwad (18%)

Andhra Pradesh

- Out of 460 PPs involved, 330 PPs are in the Mahavir Project, Hyderabad

Kerala

- In Kannur district, 38 private facilities are providing RNTCP services

Assam

- 62 tea estate hospitals under Dibrugarh DTC functioning as DOT centres
- Assam Branch of the Indian Tea Association is ready to start 3 RNTCP DMCs
- Maligaon Railway Hospital, Kamrup district, is functioning as a DMC

Other states

- 268 PPs involved in the RNTCP in Gujarat
- Nearly 1000 patients treated by Faleh-e-alam Hospital in Meerut (UP) in the past 1.5 years
- Delhi Medical Association recently completed a pilot project on PP involvement

Sensitization workshop for private practitioners in Rajgarh, Madhya Pradesh

Schemes for PPs Under the RNTCP

Scheme 1: *Referral.* Persons suspected with TB are referred by the PP to a designated microscopy centre (DMC) for smear microscopy examination. If smear negative and further care is required, patients are to be referred to the PP for non-TB care.

Scheme 2: *Provision of treatment observation.* PP or staff to provide DOT to patients, ensure sputum collection and default retrieval. Maintain records, and permit on-site monitoring by supervisory staff as per RNTCP guidelines.

Scheme 3A: *Designated paid microscopy centre—microscopy only.* A private health facility with its own laboratory can function as an RNTCP DMC and charge service fees. DTC to provide training and supervision of the laboratory technician and other staff. Annual review of approval.

Scheme 3B: *Designated paid microscopy centre—microscopy and treatment.* As in Scheme 3A, but in addition the private health facility can serve as a treatment centre. Service fees may be charged but not for the anti-TB drugs administered. Diagnosis, categorization, treatment, record keeping and supervision must follow RNTCP guidelines. In addition, PPs must complete an RNTCP modular training. Address verification must be ensured by PPs before start of treatment. DTCs to train the PPs, supervise quality of care and assist in default retrieval.

Scheme 4A: *Designated microscopy centre—microscopy only.* A private health facility with its own laboratory may function as an approved RNTCP DMC that provides free services. The required laboratory materials for microscopy services are provided to DMC by RNTCP. PPs to ensure RNTCP policy is followed, a TB Lab Register maintained, and patients informed of availability of free drugs under RNTCP and/or refer for treatment to a RNTCP DOT centre. DTC to provide training, technical guidance and ensure quality of laboratory services.

Scheme 4B: *Designated microscopy centre—microscopy and treatment.* A private health facility can serve as both an approved RNTCP DMC and a treatment centre. Diagnostic services and treatment are provided free of charge, and the required laboratory material are provided to the DMC by RNTCP. All services provided are to follow RNTCP guidelines and as in Scheme 3B.

For details, please refer to the book *Involvement of Private Practitioners in the Revised National Tuberculosis Control Programme*.

Medical colleges

The involvement of medical colleges in RNTCP is important because of the large number of TB patients treated at medical colleges, and the respect and trust of the community. They also play an important role in introducing the principles of DOTS as part of the medical curriculum and as advocates for the Programme.

After a series of sensitization seminars and national level workshops, there is a growing consensus that DOTS is the most effective strategy to control TB in India. Increasing number of medical colleges have opened DMC cum DOT centres in their hospitals. RNTCP provides logistic support and additional contractual staff to run the DMC wherever required.

A national level workshop was convened at the All India Institute of Medical Sciences, New Delhi in October 2002 to take the involvement of medical colleges forward. A National Task Force consisting of representatives from the nodal centres, central institutes and CTD has been formed. Task forces will also be established at the zonal and state level. Zonal workshops are being organized by the nodal centres and their respective State TB Offices to establish the zonal level task force/ nodal centre in their respective zones. Members of the zonal level task force will then facilitate the establishment of the state level task force.

Medical colleges identified as zonal nodal centres

- SMS Medical College, Jaipur
- RG Kar Medical College, Kolkata
- LTMM College, Sion, Mumbai
- AIIMS, New Delhi
- Christian Medical College, Vellore
- Guwahati Medical College, Guwahati
- PGI, Chandigarh