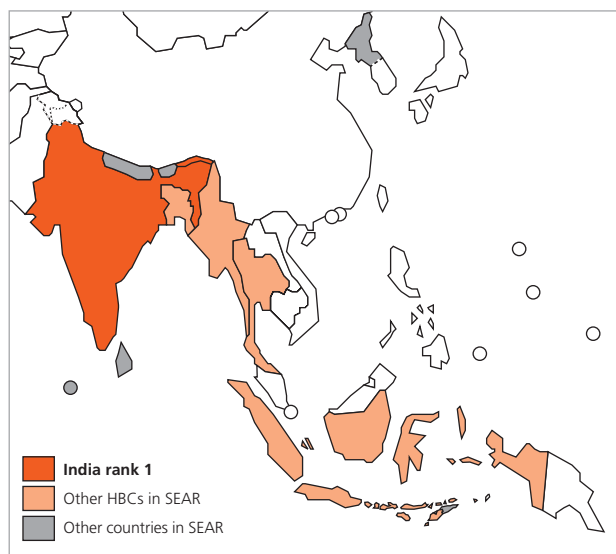


India

India has more new TB cases annually than any other country. Following the sharp growth in spending on TB control and the rapid implementation of DOTS, India reached 57% case detection countrywide in 2004, and 70% within DOTS areas. However, there is not yet sufficient evidence from surveillance and survey data to demonstrate that the TB epidemic is nationally in decline. India's challenge is to sustain and improve the quality of DOTS, to expand services to manage MDR-TB and TB linked to HIV, to involve all care providers, and to demonstrate that DOTS is having an impact.

KEY INDICATORS

Population (thousands) ^a	1 087 124
TB burden (2004 estimates)^b	
Incidence (all cases/100 000 pop/yr)	168
Trend in incidence rate (%/yr) ^c	0.0
Incidence (ss+/100 000 pop/yr)	75
Prevalence (all cases/100 000 pop) ^c	312
Mortality (deaths/100 000 pop/yr) ^c	30
Prevalence of HIV in adult TB patients (15–49yrs, %)	5.2
New TB cases multidrug-resistant (%) ^d	2.4
Previously treated TB cases multidrug-resistant (%) ^d	25
Surveillance and DOTS implementation (2004)	
Notification rate (new and relapse/100 000 pop/yr)	105
Notification rate (new ss+/100 000 pop/yr)	45
Case detection rate (all cases, %)	62
Case detection rate (new ss+, %)	60
DOTS notification rate (new and relapse/100 000 pop/yr)	97
DOTS notification rate (new ss+/100 000 pop/yr)	43
DOTS case detection rate (new and relapse, %)	58
DOTS case detection rate (new ss+, %)	57
DOTS treatment success (2003 cohort, %)	86
Budget and finance (2006)	
Government contribution to NTP budget (including loans, %)	62
Government contribution to total cost TB control (including loans, %)	78
Government health spending used for TB control (%)	1.5
NTP budget funded (%)	100

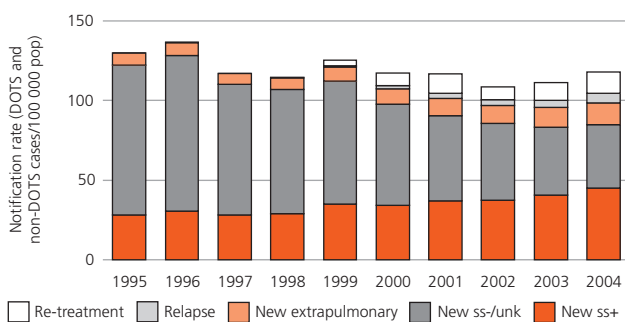


WHO South-East Asia Region (SEAR)
Rank based on estimated number of incident cases (all forms) in 2004.

SURVEILLANCE AND EPIDEMIOLOGY

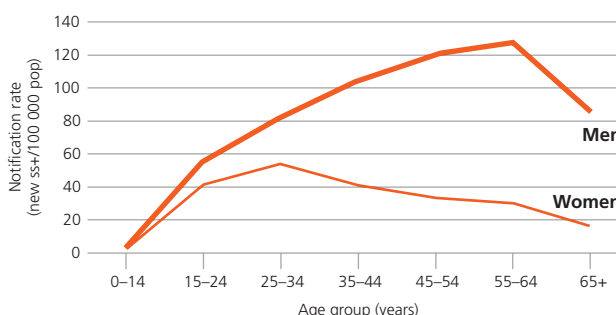
Case notifications

Total notification rate falling as a result either of improved diagnosis (fewer false-positives) or of declining incidence rate, smear-positive cases increasing as DOTS expands, DOTS case detection rate 57% nationally, over 70% within DOTS areas



Case notifications by age and sex, 2004

Age-sex distribution of cases typical of SEAR



^a World population prospects – the 2004 revision. New York, United Nations Population Division, 2005.
^b Incidence, prevalence and mortality estimates include patients with HIV. Estimate of smear-positive incidence based on three-year national tuberculin survey completed during 2003 (Annual risk of tuberculous infection in different zones of India. Government of India, 2004). Incidence rate assumed to be constant since 1990. Estimates of smear-positive prevalence from Gopi PG et al. Estimation of burden of tuberculosis in India for the year 2000. *Indian Journal of Medical Research*, 2005, 122:243–248. WHO estimate of total prevalence of TB (458/100 000 pop in year 2000) is lower than that derived directly from survey (846/100 000 pop). Estimated prevalence and death rates falling despite constant incidence rate estimate; increasing proportion of incident cases presumed treated.
^c MDG and STB Partnership indicators shown in bold. Targets are 70% case detection of smear-positive cases under DOTS, 85% treatment success, to ensure that the incidence rate is falling by 2015, and to reduce incidence rates and halve 1990 prevalence and mortality rates by 2015. Estimates for 1990 are prevalence 570/100 000 pop and mortality 42/100 000 pop/yr.
^d MDR-TB figures shown in regular type are survey data from the database of the WHO/IUATLD Global Project on Anti-Tuberculosis Drug Resistance Surveillance. Figures in italics are estimates from the following source: Zignol M et al. Global incidence of multidrug-resistant tuberculosis [submitted for publication].
^e Age and sex breakdown provided for a subset of new smear-positive cases notified in 2004.
 See Methods for further details.
 pop indicates population; ss+, smear-positive; ss-, smear-negative pulmonary; unk, pulmonary – smear not done or result unknown; yr, year.

IMPLEMENTING THE STOP TB STRATEGY¹

Pursuing high-quality DOTS expansion and enhancement

Achievements

- Developed 5-year implementation plan (2005–2010) for the Revised National TB Control Programme (RNTCP, hereafter NTP)
- Increased DOTS coverage to 616 districts out of 632 by end of 2005, covering 1080 million people
- Established NTP laboratory committee to support policy-making, monitoring and supervision, and implemented EQA protocol in 6 major states
- Established implementation schedule and budget for HR development plan (2005–2010)
- Developed a comprehensive anti-TB drug quality assurance system

Challenges

- Sustaining and improving high-quality DOTS services in a population of over one billion people
- Improving access to DOTS services in remote areas
- Ensuring adequate numbers of trained microbiologists and laboratory technicians in all states, and increasing capacity of NRLs and intermediate reference laboratories for monitoring, evaluation, DRS and research
- Furnishing intermediate reference laboratories for culture and DST

Planned activities

- Strengthen the capacity of intermediate reference laboratories to perform culture and DST

Addressing TB/HIV, MDR-TB and other challenges

Achievements

- Appointed TB/HIV coordinators in 4 major states
- Produced joint NAP/NTP training material on collaborative TB/HIV activities
- Established national MDR-TB committee and developed 5-year plan for nationwide network of treatment centres for MDR-TB
- Initiated DRS in 4 major states
- Commissioned studies on access to and use of NTP services by scheduled castes and tribes, women and people with HIV

Challenges

- Improving coordination between NAP and NTP for reporting and treatment delivery
- Decentralizing VCT services of the NAP so that they are close to DOTS facilities
- Increasing availability of quality-assured culture and DST for diagnosis and follow-up of MDR-TB patients
- Improving awareness of TB and access (physical, social and economic) to TB services in poor communities

Planned activities

- Continue to train NAP and NTP staff on HIV and TB in 14 states with high or intermediate HIV prevalence
- NAP to expand network of VCT and ART centres to reduce the distances between NAP and NTP services
- Establish MDR-TB treatment centres and enrol 100 MDR-TB patients in Gujarat and Maharashtra
- Increase use of community volunteers to provide DOT to marginalized populations such as the homeless and the very poor, and use enablers to improve diagnosis and follow-up

Contributing to health system strengthening

Achievements

- Established collaboration with ministries other than MoH to ensure TB control implementation according to NTP guidelines by key health-care providers

Challenges

- Improving access and maintaining quality of services during changes caused by the introduction of the National Rural Health Mission and integration of state/district TB societies into single state/district health societies
- Ensuring adequate HR capacity and availability at all levels of the health system
- Ensuring high-quality TB management in context of weak regulation of private health-care provision and drug sales in the private sector

Planned activities

- Continue to train all levels of health-care workers, both in the public and private sectors, and community workers and volunteers

Engaging all care providers

Achievements

- Increased involvement of NGOs (total >1500), private practitioners (>9000), medical colleges (>200), corporate sector services (>100) and involvement of other ministries, prisons and armed forces health facilities
- Implemented and monitored intensified PPM-DOTS project in 14 large cities
- Developed guidelines and finalized manual for training private practitioners; piloted treatment referral mechanism in medical colleges in 10 districts

Challenges

- Involving individual formal and informal care providers in DOTS implementation and ensuring adequate training and supervision
- Building and sustaining NTP capacity to coordinate and manage the involvement of wide range of public and private providers

Planned activities

- Scale up mechanisms for referral for treatment and transfer from large health-care institutions
- Increase involvement of professional organizations such as Indian Medical Association

Empowering people with TB, and communities

Achievements

- Involved traditional healers, community members and cured patients as DOT providers nationwide
- Implemented activities according to NTP ACSM plan to raise community awareness, sensitize all care providers and mobilize political leaders

Challenges

- Overcoming stigma of TB and discrimination against TB patients
- Promoting awareness of TB and of DOTS in traditional healers, particularly in remote areas

Planned activities

- Mobilize community-based self-help groups and NGOs to assess needs, promote early diagnosis and provide patient support
- Use community youth groups for transportation of sputum samples in inaccessible areas
- Continue use of media and develop needs-based local strategies to reach all communities

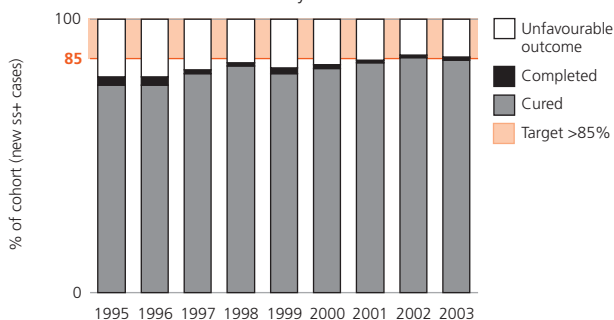
¹ Unless otherwise specified, achievements are for the period 1 July 2004 to 30 June 2005.

MONITORING DOTS

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
DOTS coverage (%)	1.5	2.0	2.3	9.0	14	30	45	52	67	84
DOTS notification rate (new & relapse / 100 000 pop)	0.5	1.6	1.9	3.0	12	21	39	52	75	97
DOTS notification rate (new ss+ / 100 000 pop)	0.2	0.7	0.8	1.3	5.3	9.3	18	23	34	43
DOTS case detection rate (new & relapse, %)	0.3	0.9	1.1	1.8	7.1	12	23	31	45	58
DOTS case detection rate (new ss+, %)	0.3	0.9	1.1	1.7	7.0	12	24	31	45	57
Case detection rate within DOTS areas ^a	19	44	46	19	52	41	53	60	69	72
DOTS treatment success (new ss+, %)	79	79	82	84	82	84	85	87	86	—
DOTS retreatment success (ss+, %)	70	67	65	72	69	71	69	72	70	—

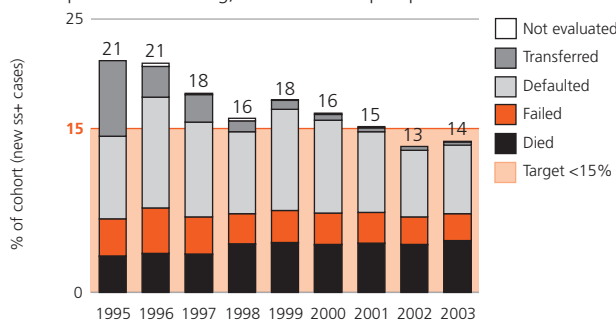
Treatment success, DOTS

Above 85% for third consecutive year



Unfavourable treatment outcomes, DOTS

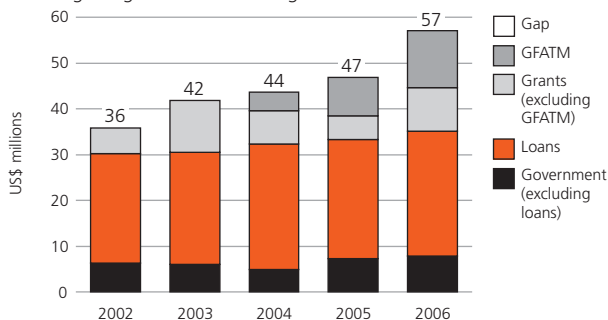
Fewer patients defaulting, better follow-up of patients who transfer



BUDGET AND FINANCE

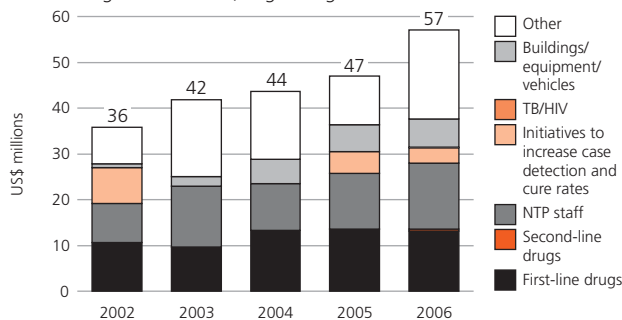
NTP budget by source of funding

Growing budget with full funding



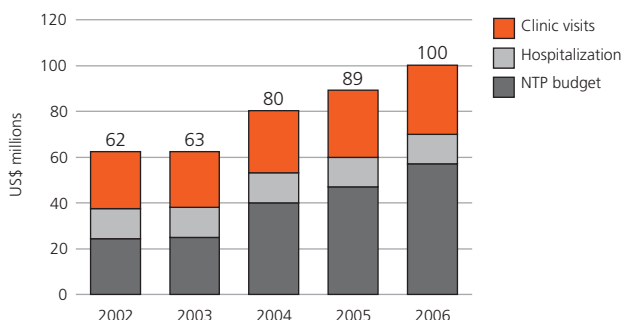
NTP budget by line item

Stable budget breakdown; large budget for staff



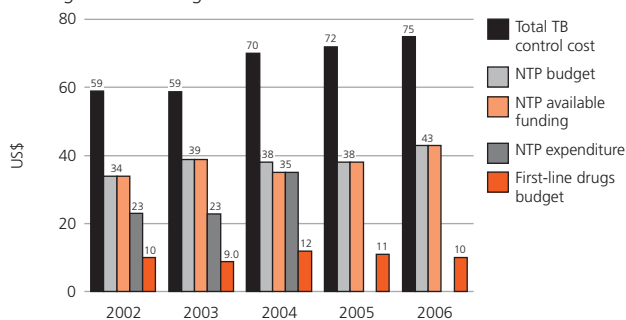
Total TB control costs by line item^b

Use of general health system staff and infrastructure makes up large share of costs



Per patient costs, budgets and expenditure^c

Low cost per patient treated compared with other HBCs; expenditures moving closer to budgets



^a The Indian NTP has estimated subnational incidence rates, and can therefore calculate a more precise estimate of the case detection rate within DOTS areas than the ratio of DOTS case detection rate to DOTS coverage (the measure used in this report for all other countries).

^b Total TB control costs for 2002–2004 are based on expenditure, whereas those for 2005–2006 are based on budgets. Estimates of the costs of clinic visits and hospitalization are WHO estimates based on data provided by the NTP and from other sources. See Methods for further details.

^c NTP available funding for 2004 is based on the amount of funding actually received, using retrospective data; available funding for 2002–2003 and 2005–2006 is based on prospectively reported budget data, and estimated as the total budget minus any reported funding gap.

pop indicates population; ss+, smear-positive; yr, year; — not available.