

COUNTRY PROFILE

China

Having reached the global targets for case detection and treatment success for the second consecutive year, the Chinese NTP is now working to improve access to high-quality TB care for all people with TB, including those with TB/HIV, those with MDR-TB and unofficial internal migrants (the "floating populations"). Activities funded by the Global Fund round 5 grant will begin to address these challenges in selected counties. While the NTP has a comprehensive human resource development plan based on a needs assessment, information about human resources at sub-national levels is not available centrally. Nonetheless, the NTP identifies a shortage of trained staff as one of the challenges to implementing the Stop TB Strategy. The relationship between TB dispensaries run by the NTP and general hospitals continues to be problematic, and pilot projects are under way to improve collaboration.

SURVEILLANCE AND EPIDEMIOLOGY, 2006

Population (thousands)^a 1 320 864

Estimates of epidemiological burden¹

Incidence (all cases/100 000 pop/yr)	99
Trend in incidence rate (%/yr, 2005–2006) ²	-1.0
Incidence (ss+/100 000 pop/yr)	45
Prevalence (all cases/100 000 pop) ²	201
Mortality (deaths/100 000 pop/yr) ²	15
Of new TB cases, % HIV+ ^b	0.3
Of new TB cases, % MDR-TB ^c	4.0
Of previously treated TB cases, % MDR-TB ^c	26

Surveillance and DOTS implementation

Notification rate (new and relapse/100 000 pop/yr)	71
Notification rate (new ss+/100 000 pop/yr)	35
DOTS case detection rate (new ss+, %)	79
DOTS treatment success (new ss+ cases, 2005 cohort, %)	94
Of new pulmonary cases notified under DOTS, % ss+	55
Of new cases notified under DOTS, % extrapulmonary	4.3
Of new ss+ cases notified under DOTS, % in women	30
Of sub-national reports expected, % received at next reporting level ^d	100

Laboratory services³

Number of laboratories performing smear microscopy	3 010
Number of laboratories performing culture	360
Number of laboratories performing DST	90
Of laboratories performing smear microscopy, % covered by EQA	92

Management of MDR-TB

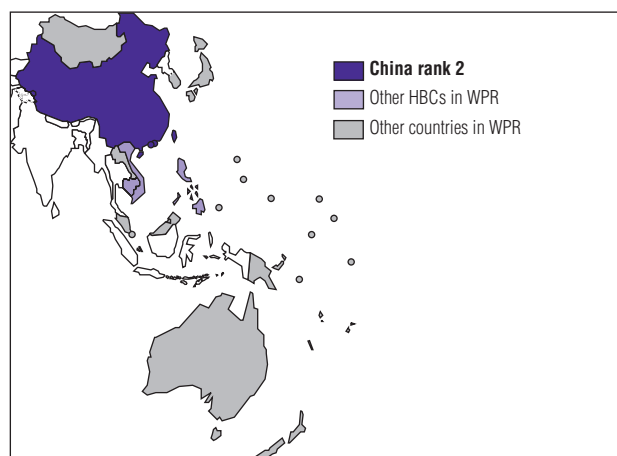
Of new cases notified, % receiving DST at start of treatment	0.0
Of new cases receiving DST at start of treatment, % MDR-TB	–
Of re-treatment cases notified, % receiving DST	0.0
Of re-treatment cases receiving DST, % MDR-TB	20

Collaborative TB/HIV activities

National policy of counselling and testing TB patients for HIV?	Yes
	(for specific groups)
National surveillance system for HIV-infection in TB patients?	No
Of TB patients (new and re-treatment) notified, % tested for HIV	0.1
Of TB patients tested for HIV, % HIV+	1.3
Of HIV+ TB patients detected, % receiving CPT	144
Of HIV+ TB patients detected, % receiving ART	333

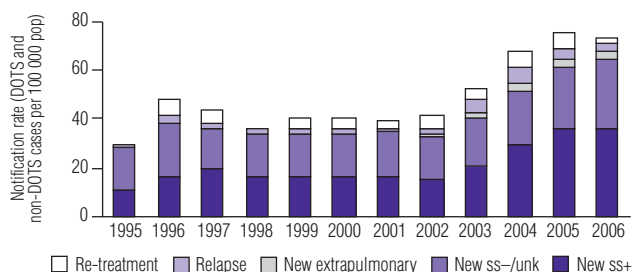
WHO Western Pacific Region (WPR)

Rank based on estimated number of incident cases (all forms) in 2006



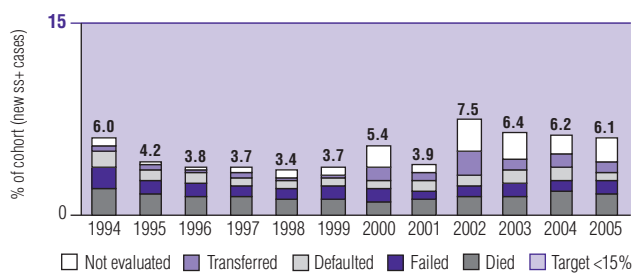
Case notifications

With the second year of full DOTS coverage, the overall notification rate is fairly steady, although the ss– notification rate has increased and re-treatment notification rate decreased



Unfavourable treatment outcomes, DOTS

Reported treatment success rate remains very high



DOTS expansion and enhancement	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
DOTS coverage (%)	49	60	64	64	64	68	68	78	91	96	100	100
DOTS notification rate (new and relapse/100 000 pop)	13	21	24	27	27	27	28	30	43	58	68	71
DOTS notification rate (new ss+/100 000 pop)	7.5	14	16	16	14	15	14	14	20	29	36	35
DOTS case detection rate (all new cases, %)	11	18	21	24	24	24	25	27	37	52	64	68
DOTS case detection rate (new ss+, %)	15	29	32	32	30	31	31	30	43	64	80	79
Case detection rate within DOTS areas (new ss+, %) ^a	31	47	50	50	46	45	45	39	47	66	80	79
DOTS treatment success (new ss+, %)	96	96	96	97	96	95	96	93	94	94	94	–
DOTS re-treatment success (ss+, %)	92	94	–	95	95	89	93	88	89	89	90	–

IMPLEMENTING THE STOP TB STRATEGY¹**DOTS EXPANSION AND ENHANCEMENT****Political commitment, standardized treatment, and monitoring and evaluation system****Achievements**

- MoH issued National TB Prevention and Control Implementation Plan 2006–2010, and conducted mid-term evaluation of National TB Control Plan in 2006
- State Council convened nationwide video conference on TB control in June, 2006, presented by local government
- Secured increased funding from central government
- Launched Global Fund round 5 project on 12 October 2006 focusing on MDR-TB, TB/HIV and TB control among “floating populations”
- Produced 25th annual report of NTP activities

Planned activities

- Further strengthen political commitment and increase funding from each level of government, especially central level
- Optimize web-based reporting system of TB, and improve routine recording and reporting at peripheral level

Quality-assured bacteriology**Achievements**

- Revised the EQA manual for microscopy
- Conducted training of trainers in provincial laboratories

Planned activities

- Print and distribute posters for SOP for microscopy, quality of staining and microscopy manuals
- Draft biosafety manual for TB laboratories
- Introduce central supply of laboratory reagents

Drug supply and management system**Achievements**

- Pilot tested SOP for anti-TB drug management of 9 TB facilities in Henan Province

Planned activities

- Evaluate pilot implementation of SOP anti-TB drug management of 9 TB facilities in Henan Province
- Scale up introduction of SOP in 18 prefectures of 6 additional provinces
- Finalize SOP manual and develop associated training material

TB/HIV, MDR-TB AND OTHER CHALLENGES**Collaborative TB/HIV activities****Achievements**

- Developed national guidelines on collaborative TB/HIV activities
- Pilot tested the TB/HIV guidelines in 6 counties in 4 provinces
- Launched Global Fund round 5 project addressing TB/HIV in 67 counties in 14 provinces

Planned activities

- Scale up Global Fund round 5 project addressing TB/HIV to cover 134 counties in 14 provinces
- Introduce HIV surveillance among TB patients in 134 counties of 14 provinces covered by Global Fund round 5 project

Diagnosis and treatment of multidrug-resistant TB**Achievements**

- Developed implementation plan for pilot project on programmatic management of MDR-TB

Planned activities

- Develop national framework for prevention and control of MDR-TB in China
- Implement programmatic management of MDR-TB in Guangdong and Hubei province, with support from Global Fund round 5 project

High-risk groups and special situations**Achievements**

- Successfully applied to Global Fund for support for projects to improve TB control among floating populations

Planned activities

- Implement planned activities outlined in Global Fund round 5 project among floating populations: provide TB diagnosis and treatment free of charge; introduce enablers such as free transport and living subsidy; develop national TB database for floating populations

HEALTH SYSTEM STRENGTHENING, INCLUDING HUMAN RESOURCE DEVELOPMENT**Achievements**

- Planning for TB control involved sector-wide and inter-sectoral collaboration
- Developed policy for national collaboration between general hospitals and TB dispensaries
- Implemented pilot project with focus on creating links between general hospitals and TB dispensaries
- Trained staff in communicable disease control at national and provincial levels

Planned activities

- Continue training staff (including 12–15 key provincial-level staff members) to train trainers, to produce training material and to evaluate training of health staff
- Pilot test human resource development planning in selected provinces

¹ Unless otherwise specified, achievements are for financial year 2006; planned activities are for financial year 2007.

ENGAGING ALL CARE PROVIDERS**Achievements**

- Introduced formal PPM activities nationwide
- MoH developed and distributed series of documents on regulation of reporting and referral systems for hospitals
- Developed standard training material on referral and tracing at central level
- Developed and implemented as pilot projects 3 new modules on PPM, including referring and defaulting tracing, designation of collaborating hospitals, and collaboration between TB hospitals and TB dispensaries

Planned activities

- Further develop current policy of collaboration, including strengthening of monitoring and supervision systems and optimizing recording and reporting systems
- Develop and promote use of standard training material for reporting, referral and tracing of TB patients
- Promote use of ISTC among general hospitals
- Expand PPM pilot initiatives in general hospitals
- Engage hospitals in public health programmes and promote cooperation among health service delivery institutions

EMPOWERING PEOPLE WITH TB, AND COMMUNITIES**Advocacy, communication and social mobilization****Achievements**

- Implemented ACSM activities in all 2681 districts and counties
- Used mass media campaigns and conducted other special activities on World TB Day
- Developed toolkit for junior- and primary-school children
- Conducted health education activities in villages in collaboration with Women's Federation

Planned activities

- Develop ACSM action plan based on WHO framework to address community involvement
- Update toolkit developed for schoolchildren
- Strengthen cooperation between various sectors, such as media and NGOs

Community participation in TB care**Achievements**

- Involved communities in TB control in all 2681 districts and counties
- Mobilized and trained village doctors and members of Women's Federation at village level
- Health education activities (one-to-one basis) focusing on TB conducted by village doctors and members of Women's Federation at village level
- Established referral system between village doctors, doctors at community health service centres and NTP

Planned activities

- Improve community awareness of TB issues by strengthening mass media communication
- Engage TB patients and their families in TB control by expanding health education activities to them
- Improve efficacy of health promotion activities conducted by village doctors and members of Women's Federation

Patients' Charter**Achievements**

The Patients' Charter was published in 2006 and was therefore not available for use in countries until then.

Planned activities

- Adopt the main content of the Patients' Charter into the ongoing revision of TB control regulations

RESEARCH, INCLUDING SPECIAL SURVEYS AND IMPACT MEASUREMENT**Achievements**

- Completed preparations for national baseline DRS survey; developed a DRS plan for all provinces
- Carried out 20 operational research projects

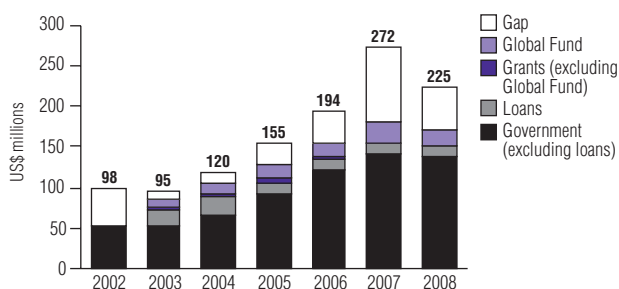
Planned activities

- Conduct DRS in 7 provinces
- Analyse trends in prevalent strains (molecular epidemiological study)
- Conduct training on operational research
- Carry out monitoring visits of approved operational research projects
- Hold workshop to share results of operational research projects

FINANCING THE STOP TB STRATEGY

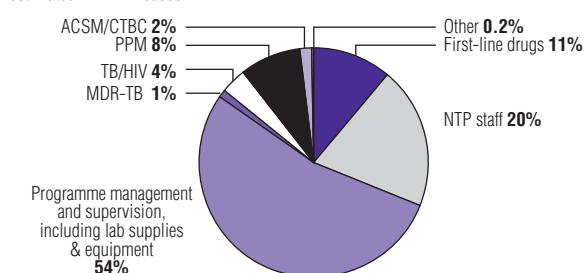
NTP budget by source of funding

Continued increase in NTP budget and funding up to 2007, but reduction in both in 2008; most financing is from domestic sources



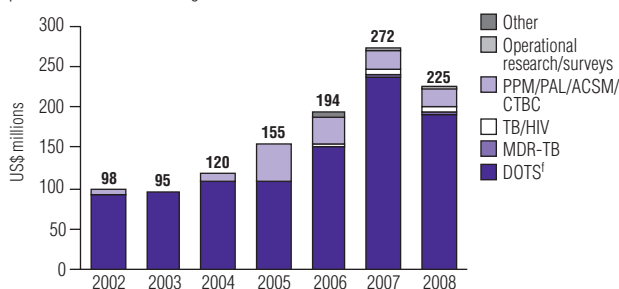
NTP budget by line item, 2008

85% of budget is for component 1 of the Stop TB Strategy (DOTS expansion and enhancement); budget for MDR-TB is small – plans for treatment cover less than 1% of estimated MDR-TB cases



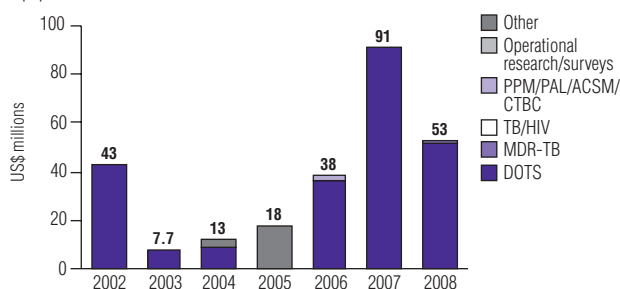
NTP budget by line item

Large increase in budget in 2007 to allow for purchase of essential equipment and vehicles; budget in all years mostly for DOTS; budget for MDR-TB includes US\$ 1153 per patient for second-line drugs



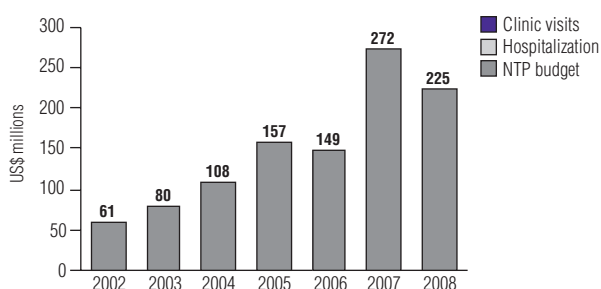
NTP funding gap by line item

Funding gaps are for DOTS component of Stop TB Strategy, and within this mainly for routine programme management and supervision activities, and laboratory supplies and equipment



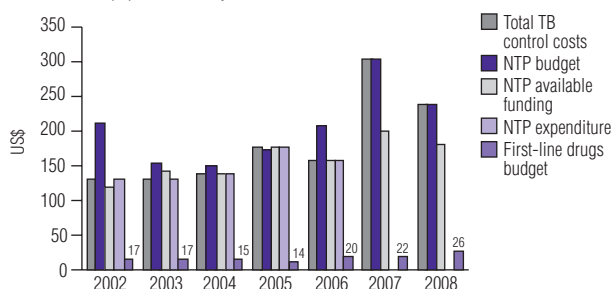
Total TB control costs by line item⁴

All costs for TB control are included in the NTP budget



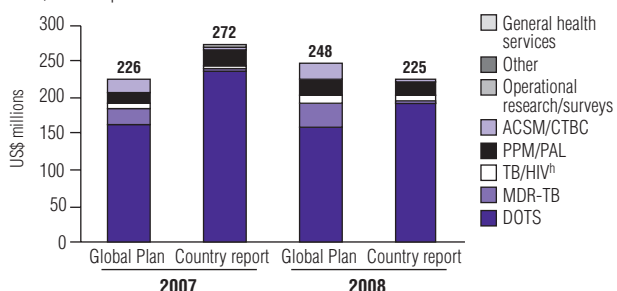
Per patient costs, budgets and expenditures^{5,6}

Increasing budget per patient with peak in 2007 due to purchase of capital items such as vehicles and equipment in that year



Comparison of country report and Global Plan:⁹ total TB control costs, 2007–2008

Country report is ahead of Global Plan expectations for DOTS, but far behind for MDR-TB and ACSM; Global Plan targets for patients to be treated for MDR-TB are from the Global MDR/XDR Response Plan



NTP budget and funding gap by Stop TB Strategy component

(US\$ millions)	2007		2008	
	BUDGET	GAP	BUDGET	GAP
DOTS expansion and enhancement	238	91	191	52
TB/HIV, MDR-TB and other challenges	7.4	0	11	0.5
Health system strengthening	0	0	0	0
Engage all care providers	19	0	19	0
People with TB, and communities	5.8	0	4.2	0
Research	1.0	0	0	0
Other	0.5	0	0.5	0

Financial indicators for TB

Government contribution to NTP budget (including loans)	56%	67%
Government contribution to total cost TB control (including loans)	56%	67%
NTP budget funded	66%	77%
<i>Per capita health financial indicators (US\$)</i>		
NTP budget per capita	0.2	0.2
Total costs for TB control per capita	0.2	0.2
Funding gap per capita	0.07	0.04
Government health expenditure per capita (2004)	27	
Total health expenditure per capita (2004)	70	

SOURCES, METHODS AND ABBREVIATIONS

^{a-h} Please see footnotes page 169.

¹ Incidence, prevalence and mortality estimates include patients infected with HIV. Incidence rate of ss+ cases estimated on basis of annual risk of TB infection (ARTI) measured in 2000, and assumed to be declining at same rate as ARTI (1% per year).

² 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 322/100 000 pop and mortality 24/100 000 pop/yr.

³ For routine diagnosis, there should be at least one laboratory providing smear microscopy per 100 000 population. To provide culture for diagnosis of paediatric, extrapulmonary and ss-/HIV+ TB, as well as DST for re-treatment and failure cases, there should be at least one culture facility and one DST facility in each of the 31 provinces.

⁴ Total TB control costs for 2002–2006 are based on expenditure, whereas those for 2007–2008 are based on budgets.

⁵ Estimates of expenditure are based on received funding.

⁶ NTP available funding for 2004–2006 is based on the amount of funding actually received, using retrospective data; available funding for 2002–2003 and 2007–2008 is based on prospectively reported budget data, and estimated as the total budget minus any reported funding gap.

– indicates not available; pop, population; ss+, sputum smear-positive; ss-, sputum smear-negative pulmonary; unk, pulmonary – sputum smear not done or result unknown; yr, year.