

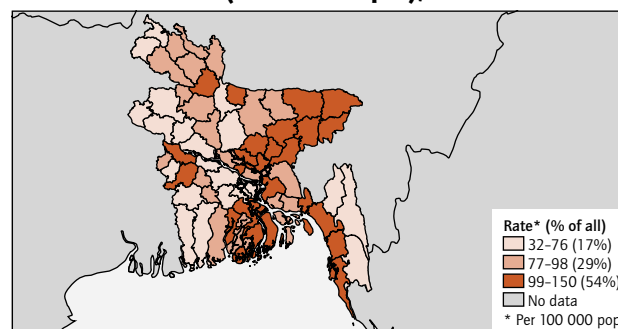
Bangladesh

Bangladesh increased the case detection rate of new smear-positive cases to 66% in 2007 and has maintained a treatment success rate exceeding 90% since 2004. The provision of EQA has expanded to almost all peripheral-level laboratories. Support from the GDF has secured an uninterrupted supply of drugs. Community-based DOTS through village doctors (Damien Foundation) and community health volunteers (BRAC) ensures supervised drug intake. Programmatic guidelines for MDR-TB and TB/HIV were developed in 2008. The Damien Foundation expanded its MDR-TB treatment project and supported the development of a regional reference laboratory, and the NTP will soon begin enrolling patients in an MDR-TB treatment programme. Major challenges include limited capacity for diagnosis of smear-negative and extrapulmonary TB, and MDR-TB. Weak coordination among health-care providers is a major challenge for TB control in large urban areas.

SURVEILLANCE AND EPIDEMIOLOGY

Population (thousands) ^a	158 665	
Estimates of epidemiological burden, 2007^b	ALL	IN HIV+ PEOPLE
Incidence		
All forms of TB (thousands of new cases per year)	353	1.0
All forms of TB (new cases per 100 000 pop/year)	223	0.6
Rate of change in incidence rate (%), 2006-2007	-1.0	0.1
New ss+ cases (thousands of new cases per year)	159	0.3
New ss+ cases (per 100 000 pop/year)	100	0.2
HIV+ incident TB cases (% of all TB cases)	0.3	—
Prevalence		
All forms of TB (thousands of cases)	614	0.5
All forms of TB (cases per 100 000 pop)	387	0.3
2015 target for prevalence (cases per 100 000 pop)	319	—
Mortality		
All forms of TB (thousands of deaths per year)	71	0.4
All forms of TB (deaths per 100 000 pop/year)	45	0.3
2015 target for mortality (deaths per 100 000 pop/year)	39	—
Multidrug-resistant TB (MDR-TB)		
MDR-TB among all new TB cases (%)	3.5	—
MDR-TB among previously treated TB cases (%)	20	—

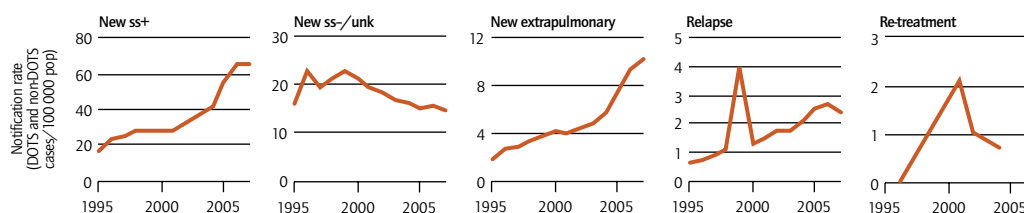
TB notification rate (new and relapse), 2007



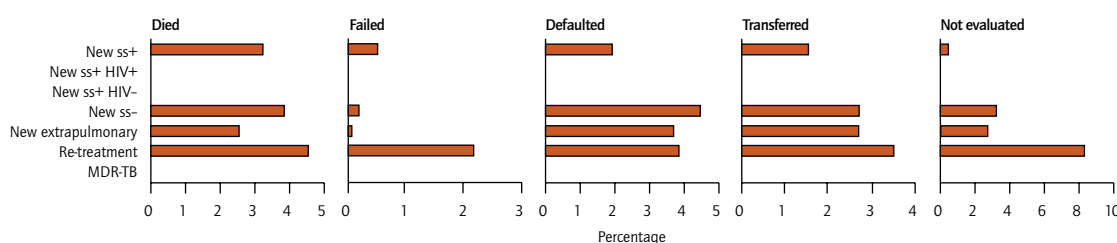
Total notifications, 2007

Notified new and relapse cases (thousands)	147
Notified new and relapse cases (per 100 000 pop/year)	93
Notified new ss+ cases (thousands)	104
Notified new ss+ cases (per 100 000 pop/year)	66
as % of new pulmonary cases	82
sex ratio (male/female)	2.0
DOTS case detection rate (% of estimated new ss+)	66
Notified new extrapulmonary cases (thousands)	16
as % of notified new cases	11
Notified new ss+ cases in children (<15 years) (thousands)	1.4
as % of notified new ss+ cases	1.3

Case notifications



Unfavourable treatment outcomes, 2006 cohorts



	2000	2001	2002	2003	2004	2005	2006	2007
DOTS coverage (%)	92	95	95	99	99	99	100	100
Notification rate (new & relapse cases/100 000 pop)	54	54	57	60	65	80	93	93
% notified new & relapse cases reported under DOTS	79	84	88	100	100	100	100	100
Notification rate (new ss+ cases/100 000 pop)	28	29	32	36	42	55	65	66
% notified new ss+ cases reported under DOTS	93	95	98	100	100	100	100	100
Case detection rate (all new cases, %)	22	22	23	25	28	34	40	41
Case detection rate (new ss+ cases, %)	26	27	31	35	40	54	65	66
Treatment success (new ss+ patients, %)	81	83	84	85	90	91	92	—
Re-treatment success (ss+ patients, %)	72	—	69	127	81	80	77	—

Note: notification, case detection and treatment success rates are for the whole country (i.e. DOTS and non-DOTS cases combined).

DOTS EXPANSION AND ENHANCEMENT

Overview of services for diagnosis of TB and treatment of patients

Description of basic management unit	Chest disease clinic, district Hospital
Number of units (DOTS/total), 2007	753/753
Location of NTP services	
Rural	Upazilla Health Complex
Urban	Chest disease clinic, district hospital
NTP services part of general primary health-care network?	Yes
Location where TB diagnosed	
Rural	Upazilla Health Complex
Urban	Chest disease clinic, district hospital
Diagnosis free of charge?	Yes (all suspects)
Treatment supervised?	All patients in all units
Intensive phase	Health-care worker, community member
Continuation phase	Health-care worker, community member
Category I regimen	2(HRZE)/4(HR)3
Treatment free of charge	All patients in all units
External review missions	last: 2007 next: 2010

Political commitment

National strategic plan?	Yes (2006–2010)
Mechanism for national interagency coordination?	Yes (established –)
National Stop TB Partnership?	No (planned –)

Financial indicators, 2009

(see final page for detailed presentation)	%
Government contribution to NTP budget (incl loans)	39
Government contribution to total cost TB control (incl loans)	56
Government health spending used for TB control	4.2
NTP budget funded	99

Per capita health financial indicators, 2009

	US\$
NTP budget per capita	0.1
Total costs for TB control per capita	0.1
Funding gap per capita	0.0006
Government health expenditure per capita (2005)	3.4
Total health expenditure per capita (2005)	12

Quality-assured bacteriology

National reference laboratory?	Yes
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All TB laboratories performing EQA of smear microscopy or DST under the supervision of the National Reference Laboratory

	Smear				Culture		DST			
	Number	per 100 000	EQA	% adeq perf	Number	per 5 000 000	Number	per 10 000 000	EQA	% adeq perf
2007	753	0.5	753	88%	4	0.1	2	0.1	0	–
2008	753	0.5	753	–	4	0.1	2	0.1	0	–

Note: for routine diagnosis, there should be at least one laboratory providing smear microscopy per 100 000 population. To provide culture for diagnosis of paediatric, extra-pulmonary and ss-/HIV+ TB, as well as DST of re-treatment and failure cases, most countries will need one culture facility per 5 million population and one DST facility per 10 million population. EQA column shows number of laboratories for which EQA was done. Adeq perf; adequate performance for microscopy based on results of EQA.

System for managing drug supplies and laboratory equipment

	Central level			Peripheral level		
	2005	2006	2007	2005	2006	2007
Stock-outs of laboratory supplies?	–	No	–	–	No	–
Stock-outs of first-line anti-TB drugs?	No	No	No	No	No	No

Monitoring and evaluation system, and impact measurement

NTP publishes annual report?	Yes (since –)	Burden and impact assessment		last	next
% of BMUs reporting to next level in 2007		In-depth analysis of routine surveillance data	No	–	–
Case-finding	100%	Prevalence of disease survey	Yes, national	2007	–
Treatment outcomes	100%	Prevalence of infection survey	No	–	–
		Drug resistance survey	–	–	2009
		Mortality survey	No	–	–
		Analysis of vital registration data	No	–	–

MDR-TB, TB/HIV AND OTHER CHALLENGES

	2005	2006	2007
	Number (% of estimated ss+ MDR-TB)		
Estimated incidence of ss+ MDR cases	7 583	7 640	7 694
Diagnosed and notified	– (–%)	– (–%)	– (–%)
Registered for treatment	– (–%)	– (–%)	– (–%)
GLC	0	0	0
non-GLC	–	–	–

MDR-TB, TB/HIV AND OTHER CHALLENGES (continued)

Detection and treatment of HIV in TB patients, 2007

TB patients for whom the HIV test result was known	—
as % of all notified TB patients	—
TB patients with positive HIV test	—
as % of all estimated HIV+ TB cases	—
HIV+ TB patients started or continued on CPT	—
as % of HIV+ TB patients notified	—
HIV+ TB patients started or continued on ART	—
as % of HIV+ TB patients notified	—

Screening for TB in HIV-positive patients, 2007

HIV+ patients in HIV care or ART register	—
Screened for TB	—
as % of HIV+ patients in HIV care or ART register	—
Started on TB treatment	—
as % of HIV+ patients in HIV care or ART register	—
Started on IPT	—
as % of HIV+ patients without TB in HIV care or ART register	—

High-risk groups, 2007

Number of close contacts of ss+ TB patients screened	—
Number of TB cases identified among contacts	—
% of contacts with TB	—
Contacts started on IPT	—
% of contacts without TB on IPT	—

HIV testing for TB patients

Data not reported

CPT and ART for HIV-positive TB patients

Data not reported

CONTRIBUTING TO HEALTH SYSTEM STRENGTHENING

The health-care system in the public sector is constrained by a lack of human resources, which affects access to TB services in rural areas. NGOs work in close collaboration with the government to provide essential primary health-care services, including integrated services to control TB, in many areas. TB control is well aligned with the national health plan, the SWAP and the Medium-term Expenditure Framework for health. The NTP is a leader in engaging informal health-care providers to provide public health services, including the use of "village doctors" to find TB cases and support anti-TB treatment.

Practical Approach to Lung Health (PAL), 2007

Number of health-care facilities providing PAL services	—	As % of total number of health-care facilities	—
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ENGAGING ALL CARE PROVIDERS

Public-public and public-private approaches (PPM), 2007

Number of providers collaborating with the NTP ^a	Number collaborating (total number of providers)	% total notified TB	
		Diagnosed	Treated
Public sector	101 (—)	—	—
Private sector	2 455 (—)	—	—

International Standards for Tuberculosis Care (ISTC)

ISTC endorsed by professional organizations?	No
ISTC included in medical curriculum?	No

EMPOWERING PEOPLE WITH TB, AND COMMUNITIES

Advocacy, communication and social mobilization (ACSM)

An ACSM consultant participated in the 2007 National Programme Review to assess progress and helped to draft recommendations for future ACSM activities. A KAP survey is planned for 2009, and the national ACSM strategy is being finalized.

Community participation in TB care and Patients' Charter

Community-based services are widely available in the country, primarily through two important NGOs that provide services in accordance with NTP policy. DOT in rural areas is provided through female community health volunteers (as part of a primary health-care package), village doctors, cured patients and community opinion-leaders. Activities to raise awareness among communities, identify suspected TB cases and trace defaulters are widely implemented. In urban areas, DOT is usually available at a health facility. No data on use of the Patients' Charter were reported.

ENABLING AND PROMOTING RESEARCH

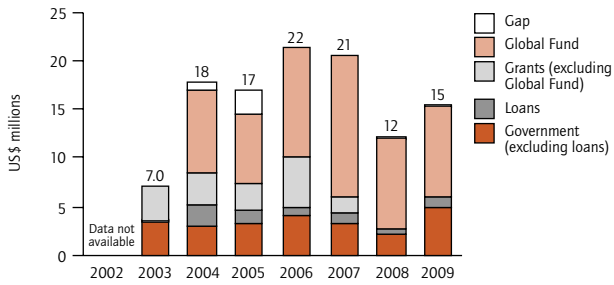
Programme-based operational research, 2007

Operational research budget (% of NTP budget)	0.7%
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FINANCING

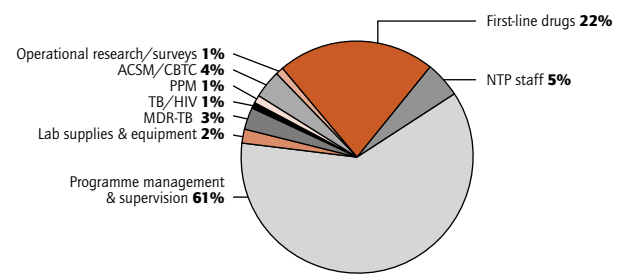
a. NTP budget by source of funding

Decreased budget in 2008 and 2009



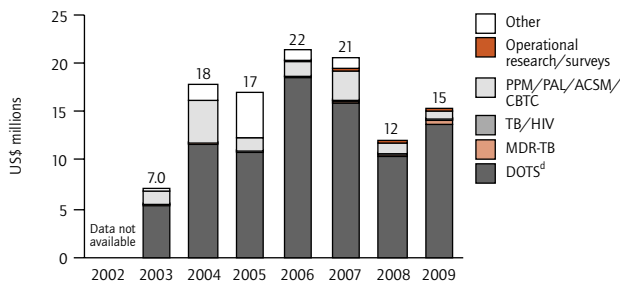
b. NTP budget line items in 2009

90% of budget is for DOTS, with a substantial share for programme management and supervision



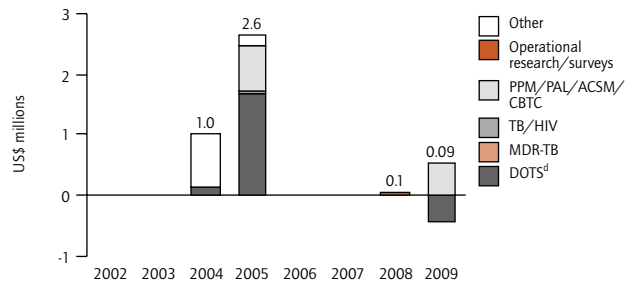
c. NTP budget by line item

Within DOTS, large decrease in budget for NTP staff in 2008



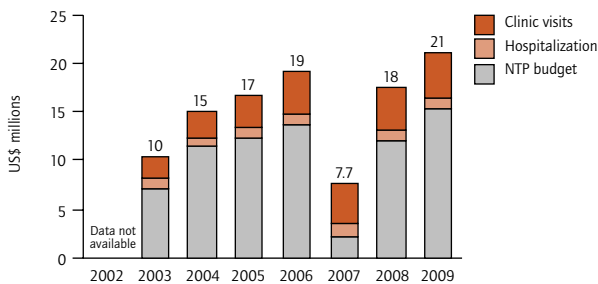
d. NTP funding gap by line item

Surplus within DOTS in 2009 mainly for laboratory supplies and equipment; funding gap within MDR-TB is for second-line drugs



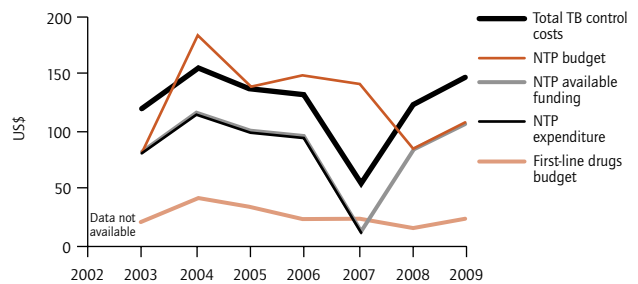
e. Total TB control costs by line item¹

Hospitalization costs are for 696 dedicated TB beds; costs for clinic visits based on 27 visits per patient during treatment; NTP budget accounts for the largest share of TB control costs



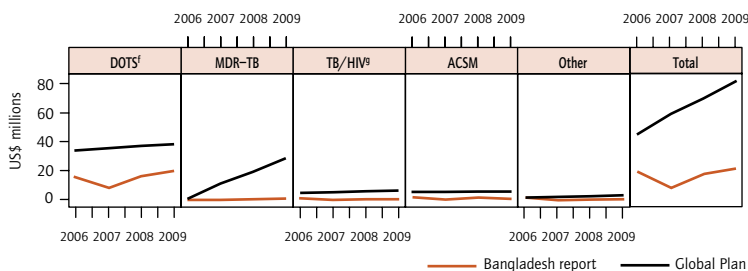
f. Per patient costs, budgets and expenditures²

Decreased total costs in 2007; expenditure data appear incomplete in 2007



g. Global Plan compared with country reports³

Country report not in line with Global Plan; targets for MDR-TB patients to be treated in Global MDR/XDR-TB Response Plan much higher than scaling-up planned by NTP



h. NTP budget and funding gap by Stop TB Strategy component (US\$ millions)

Component	2009 BUDGET	GAP
DOTS expansion and enhancement	14	-0.4
TB/HIV, MDR-TB and other challenges	0.5	0
Health system strengthening	0	0
Engage all care providers	0.2	0
People with TB, and communities	0.5	0.5
Research and surveys	0.2	0
Other	0	0

SOURCES, METHODS AND ABBREVIATIONS

a-g Please see footnotes page 169.

¹ Total TB control costs for 2003–2007 are based on expenditure, whereas those for 2008–2009 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.

² NTP available funding for 2004–2007 is based on the amount of funding actually received, using retrospective data; available funding for 2003 and 2008–2009 is based on prospectively reported budget data, and estimated as the total budget minus any reported funding gap.

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