

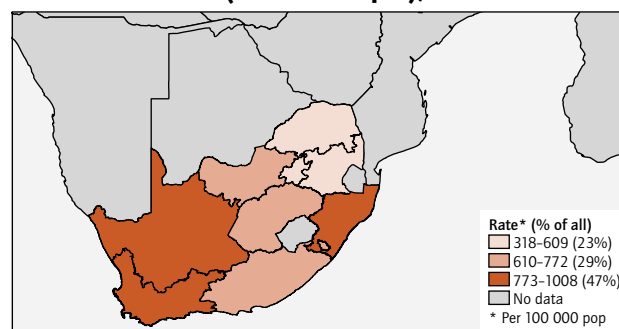
# South Africa

The case detection rate has remained above target since 2003; however, treatment success rates have remained low, with high default and death rates. South Africa reports the highest number of confirmed MDR-TB and XDR-TB cases in the region. Collaborative TB/HIV activities are being scaled up across the country. In 2007, almost 40% of notified TB patients were tested for HIV, and 35% and 67% of HIV-positive TB patients were provided with ART and CPT respectively. New approaches to trace treatment defaulters are being tested in selected areas. Considerable efforts have been made to estimate the funding requirements for TB control, although decentralization of planning and budgeting to provinces makes this challenging. A comprehensive costing study aimed at improving the accuracy of current estimates of funding needs and funding gaps is planned for 2009.

## SURVEILLANCE AND EPIDEMIOLOGY

<b>Population</b> (thousands) <sup>a</sup>	48 577	
<b>Estimates of epidemiological burden, 2007<sup>b</sup></b>	ALL	IN HIV+ PEOPLE
<b>Incidence</b>		
All forms of TB (thousands of new cases per year)	461	336
All forms of TB (new cases per 100 000 pop/year)	948	691
Rate of change in incidence rate (%), 2006–2007	<b>0.9</b>	<b>0.9</b>
New ss+ cases (thousands of new cases per year)	174	117
New ss+ cases (per 100 000 pop/year)	358	242
HIV+ incident TB cases (% of all TB cases)	73	–
<b>Prevalence</b>		
All forms of TB (thousands of cases)	336	168
All forms of TB (cases per 100 000 pop)	692	345
2015 target for prevalence (cases per 100 000 pop)	<b>384</b>	–
<b>Mortality</b>		
All forms of TB (thousands of deaths per year)	112	94
All forms of TB (deaths per 100 000 pop/year)	<b>230</b>	193
2015 target for mortality (deaths per 100 000 pop/year)	<b>39</b>	–
<b>Multidrug-resistant TB (MDR-TB)</b>		
MDR-TB among all new TB cases (%)	1.8	–
MDR-TB among previously treated TB cases (%)	6.7	–

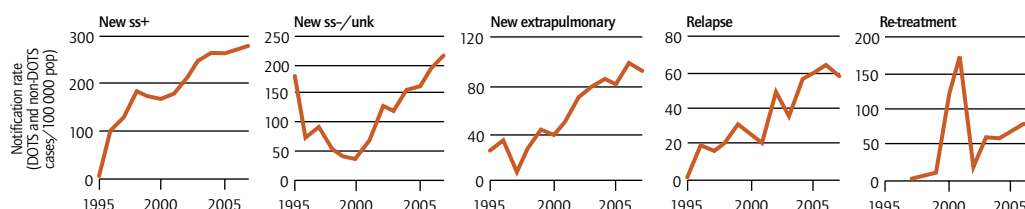
## TB notification rate (new and relapse), 2007



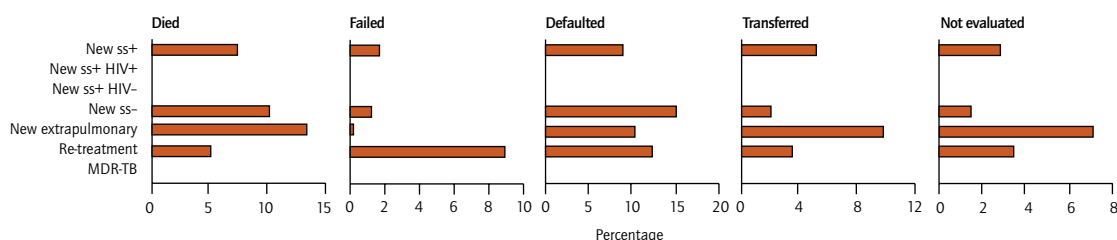
## Total notifications, 2007

Notified new and relapse cases (thousands)	315
Notified new and relapse cases (per 100 000 pop/year)	649
Notified new ss+ cases (thousands)	136
Notified new ss+ cases (per 100 000 pop/year)	279
as % of new pulmonary cases	56
sex ratio (male/female)	1.2
DOTS case detection rate (% of estimated new ss+)	<b>78</b>
Notified new extrapulmonary cases (thousands)	46
as % of notified new cases	16
Notified new ss+ cases in children (<15 years) (thousands)	4.4
as % of notified new ss+ cases	3.3

## Case notifications



## Unfavourable treatment outcomes, 2006 cohorts



	2000	2001	2002	2003	2004	2005	2006	2007
DOTS coverage (%)	77	77	98	100	93	94	100	100
Notification rate (new & relapse cases/100 000 pop)	333	322	462	483	562	564	628	649
% notified new & relapse cases reported under DOTS	82	78	99	100	97	96	100	100
Notification rate (new ss+ cases/100 000 pop)	167	182	212	247	266	262	272	279
% notified new ss+ cases reported under DOTS	82	85	99	100	96	96	100	100
Case detection rate (all new cases, %)	43	44	53	53	56	55	60	62
Case detection rate (new ss+ cases, %)	76	70	72	77	78	75	77	78
Treatment success (new ss+ patients, %)	63	61	68	67	69	71	74	–
Re-treatment success (ss+ patients, %)	50	50	53	52	56	58	67	–

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	Districts
Number of units (DOTS/total), 2007	53/53
<b>Location of NTP services</b>	
Rural	Primary health care clinic, district hospital
Urban	Primary health care clinic, district hospital
NTP services part of general primary health-care network?	Yes
<b>Location where TB diagnosed</b>	
Rural	Primary health care facility, district hospital
Urban	Primary health care facility, district hospital
Diagnosis free of charge?	Yes (all suspects)
Treatment supervised?	Some patients in all units
Intensive phase	Health-care worker, community member, family member
Continuation phase	Health-care worker, community member, family member
Category I regimen	2HRZE/4(HR)
Treatment free of charge	All patients in all units
External review missions	last: 2003 next: 2009

## Political commitment

National strategic plan?	Yes (2007-2011)
Mechanism for national interagency coordination?	Yes (established 2004)
National Stop TB Partnership?	No (planned 2009)

## Financial indicators, 2008

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

## Per capita health financial indicators, 2008

	US\$
NTP budget per capita	7.2
Total costs for TB control per capita	12
Funding gap per capita	–
Government health expenditure per capita (2005)	182
Total health expenditure per capita (2005)	437

## 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	249	0.5	241	93%	15	1.5	10	2.1	10	100%
2008	249	0.5	249	–	18	1.8	10	2.0	10	–

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	–	No	No
Stock-outs of first-line anti-TB drugs?	No	No	Yes	No	All units	No

## Monitoring and evaluation system, and impact measurement

NTP publishes annual report?	No	<b>Burden and impact assessment</b>		last	next
% of BMUs reporting to next level in 2007		In-depth analysis of routine surveillance data	Yes	–	2009
Case-finding	100%	Prevalence of disease survey	Yes, sub-national	–	2010
Treatment outcomes	100%	Prevalence of infection survey	No	–	–
		Drug resistance survey	Yes, national	2001-2002	2009
		Mortality survey	No	–	–
		Analysis of vital registration data	Yes	2007	2010

## MDR-TB, TB/HIV AND OTHER CHALLENGES

Multidrug-resistant TB (MDR-TB)	2005	2006	2007
	Number (% of estimated ss+ MDR-TB)		
Estimated incidence of ss+ MDR cases	10 312	10 553	10 708
Diagnosed and notified	2000 (19%)	6716 (64%)	7350 (69%)
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	136 247
as % of all notified TB patients	39
TB patients with positive HIV test	87 764
as % of all estimated HIV+ TB cases	26
HIV+ TB patients started or continued on CPT	58 801
as % of HIV+ TB patients notified	67
HIV+ TB patients started or continued on ART	31 040
as % of HIV+ TB patients notified	35

**Screening for TB in HIV-positive patients, 2007**

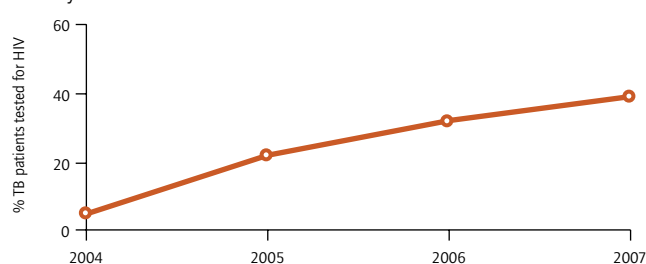
HIV+ patients in HIV care or ART register	379 672
Screened for TB	150 092
as % of HIV+ patients in HIV care or ART register	40
Started on TB treatment	15 521
as % of HIV+ patients in HIV care or ART register	4.1
Started on IPT	5 642
as % of HIV+ patients without TB in HIV care or ART register	1.5

**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**

The proportion of TB patients tested for HIV continues to increase steadily

**CPT and ART for HIV-positive TB patients**

The proportion of HIV-positive TB patients receiving CPT fell considerably in 2007

**CONTRIBUTING TO HEALTH SYSTEM STRENGTHENING****Practical Approach to Lung Health (PAL), 2007**

Number of health-care facilities providing PAL services	759	As % of total number of health-care facilities	22
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**ENGAGING ALL CARE PROVIDERS****Public-public and public-private approaches (PPM), 2007**

	Number collaborating (total number of providers)	% total notified TB	
		Diagnosed	Treated
Public sector	– (–)	–	–
Private sector	– (–)	–	–

**International Standards for Tuberculosis Care (ISTC)**

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

**EMPOWERING PEOPLE WITH TB, AND COMMUNITIES****Advocacy, communication and social mobilization (ACSM)****Community participation in TB care and Patients' Charter**

By 2007, community-based care for MDR-TB patients had been introduced in selected districts in the provinces of KwaZulu-Natal and the Western Cape. Community-based care is included within national policy and guidelines, although implementation is variable. No data on use of the Patients' Charter were reported in 2008.

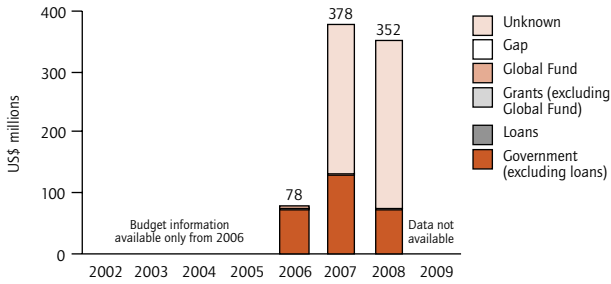
**ENABLING AND PROMOTING RESEARCH****Programme-based operational research, 2007**

Operational research budget (% of NTP budget)	0.1%
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FINANCING

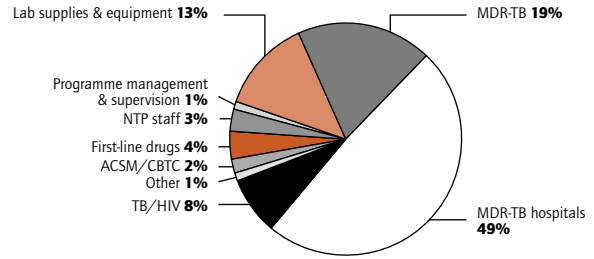
a. NTP budget by source of funding

Substantial increase in funding needs for 2007-2008; without complete information from provinces, sources of funding for a large part of the budget (mostly for MDR-TB) are unknown



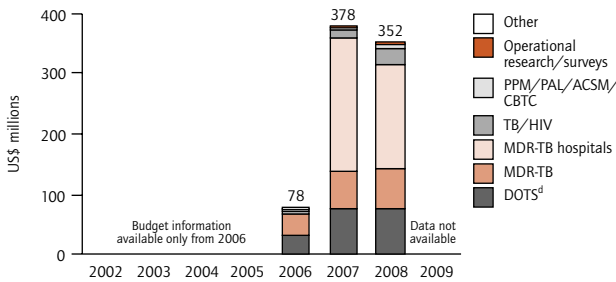
b. NTP budget line items in 2008

Share of budget for MDR-TB highest among HBCs



c. NTP budget by line item

Increased budget is mainly for MDR-TB, a large part of which is for the new hospital bed capacity required for MDR/XDR-TB patients

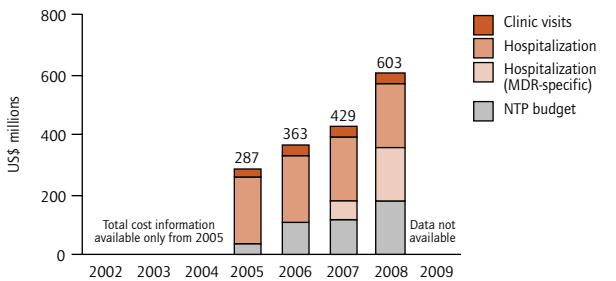


d. NTP funding gap by line item

Data on the funding available for TB control in South Africa are currently incomplete due to difficulties in compiling information about funding allocations at provincial level. From discussions among WHO, the NTP and staff in the national treasury, it seems likely that funding gaps do exist, especially for MDR/XDR-TB. The NTP is planning to conduct a comprehensive assessment of funding needs and funding gaps in 2009.

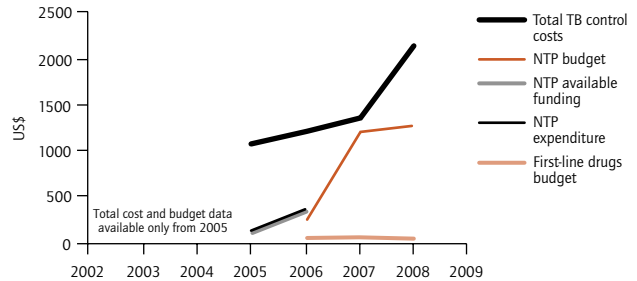
e. Total TB control costs by line item<sup>1</sup>

Estimated cost of hospitalization is based on 8112 dedicated TB beds for new TB patients; cost for hospitalization (MDR-specific) covers new bed capacity required to hospitalize patients for 6 months, and is mostly unfunded



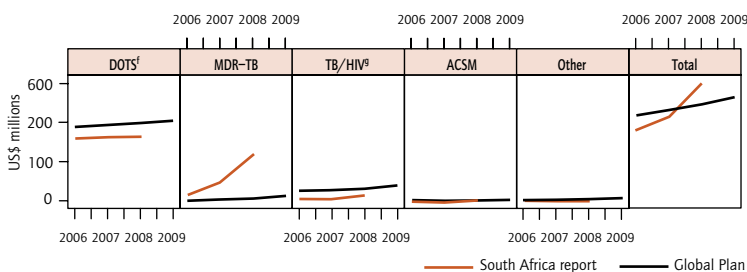
f. Per patient costs, budgets and expenditures<sup>2</sup>

Total cost, budget and expenditures per patient are increasing



g. Global Plan compared to country reports<sup>e</sup>

Country assessment of funding required for DOTS and MDR-TB is higher than the estimates in the Global Plan; for MDR-TB, this reflects current national policy that MDR/XDR-TB patients should be hospitalized for at least 6 months, and higher projections of patients to be treated



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

Component	2009 BUDGET	GAP
DOTS expansion and enhancement		
TB/HIV, MDR-TB and other challenges		
Health system strengthening		DATA NOT AVAILABLE
Engage all care providers		DATA NOT AVAILABLE
People with TB, and communities		DATA NOT AVAILABLE
Research and surveys		DATA NOT AVAILABLE
Other		DATA NOT AVAILABLE

SOURCES, METHODS AND ABBREVIATIONS

a-g Please see footnotes page 169.

<sup>1</sup> Total TB control costs for 2005-2007 are based on expenditure, whereas those for 2008 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.

<sup>2</sup> NTP available funding for 2005-2006 is based on the amount of funding actually received, using retrospective data.

- 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.