COUNTRY PROFILE

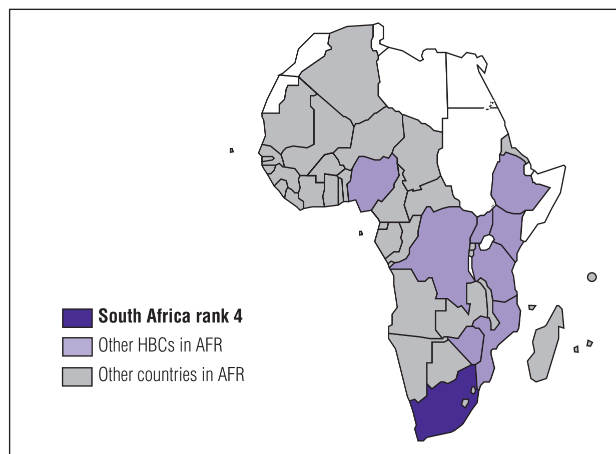
South Africa

Treatment success rates in South Africa remain low, with death and default the most frequent negative outcomes. Case notification rates continue to increase; a reassessment of the incidence estimate, based on registered deaths, suggests that the 70% case detection rate target was reached for the first time in 2006. Activities related to HIV/TB and MDR-TB are being scaled up, but in 2006 only one third of TB patients were tested for HIV, and information about the number tested for MDR is not available to the NTP. A dramatic increase in funding is expected for 2007 and 2008, principally for investment in infrastructure associated with MDR-TB and XDR-TB.

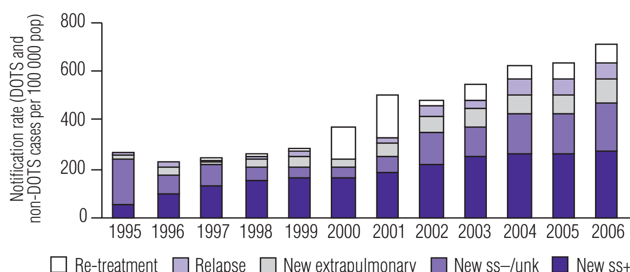
SURVEILLANCE AND EPIDEMIOLOGY, 2006

Population (thousands)[a]	48 282
Estimates of epidemiological burden[1]	
Incidence (all cases/100 000 pop/yr)	940
Trend in incidence rate (%/yr, 2005–2006)[2]	**1.6**
Incidence (ss+/100 000 pop/yr)	382
Prevalence (all cases/100 000 pop)[2]	**998**
Mortality (deaths/100 000 pop/yr)[2]	**218**
Of new TB cases, % HIV+[b]	*44*
Of new TB cases, % MDR-TB (2002)[c]	1.8
Of previously treated TB cases, % MDR-TB (2002)[c]	6.7
Surveillance and DOTS implementation	
Notification rate (new and relapse/100 000 pop/yr)	628
Notification rate (new ss+/100 000 pop/yr)	272
DOTS case detection rate (new ss+, %)	**71**
DOTS treatment success (new ss+, 2005 cohort, %)	**71**
Of new pulmonary cases notified under DOTS, % ss+	58
Of new cases notified under DOTS, % extrapulmonary	18
Of new ss+ cases notified under DOTS, % in women	45
Of sub-national reports expected, % received at next reporting level[d]	100
Laboratory services[3]	
Number of laboratories performing smear microscopy	143
Number of laboratories performing culture	13
Number of laboratories performing DST	8
Of laboratories performing smear microscopy, % covered by EQA	100
Management of MDR-TB	
Of new cases notified, % receiving DST at start of treatment	–
Of new cases receiving DST at start of treatment, % MDR-TB	–
Of re-treatment cases notified, % receiving DST	–
Of re-treatment cases receiving DST, % MDR-TB	–
Collaborative TB/HIV activities	
National policy of counselling and testing TB patients for HIV?	Yes (to all patients)
National surveillance system for HIV-infection in TB patients?	No
Of TB patients (new and re-treatment) notified, % tested for HIV	32
Of TB patients tested for HIV, % HIV+	53
Of HIV+ TB patients detected, % receiving CPT	98
Of HIV+ TB patients detected, % receiving ART	40

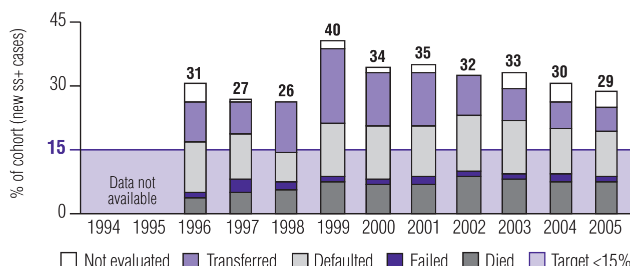
WHO Africa Region (AFR)
Rank based on estimated number of incident cases (all forms) in 2006



Case notifications
Notifications continue to rise; relapse and re-treatment cases comprise about 20% of total notifications



Unfavourable treatment outcomes, DOTS
Treatment outcomes gradually improving; default still main barrier to reaching the target for treatment success



DOTS expansion and enhancement	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
DOTS coverage (%)	–	0.0	13	22	66	77	77	98	100	93	94	100
DOTS notification rate (new and relapse/100 000 pop)	–	–	15	50	202	193	263	456	483	543	543	628
DOTS notification rate (new ss+/100 000 pop)	–	–	9.6	37	122	137	156	210	247	254	250	272
DOTS case detection rate (all new cases, %)	–	0.0	3.7	11	38	34	36	52	52	54	52	60
DOTS case detection rate (new ss+, %)	–	–	6.3	22	61	58	56	66	71	70	67	71
Case detection rate within DOTS areas (new ss+, %)[e]	–	–	49	99	93	75	72	67	72	75	71	71
DOTS treatment success (new ss+, %)	–	69	73	74	60	66	65	68	67	70	71	–
DOTS re-treatment success (ss+, %)	–	67	68	71	47	52	53	53	52	56	58	–

IMPLEMENTING THE STOP TB STRATEGY[1]

DOTS EXPANSION AND ENHANCEMENT

Political commitment, standardized treatment, and monitoring and evaluation system

Achievements

- Revised TB data reporting and recording registers to include information on collaborative TB/HIV activities, and piloted use of revised registers
- Trained health-care workers on infection control

Planned activities

- Implement the TB strategic plan for 2007–2011
- Continue to train health-care workers on TB infection control
- Implement revised TB data reporting and recording registers in all 9 provinces
- Revise national TB control guidelines to include, among other things, recent recommendations on diagnosis of smear-negative and extrapulmonary TB
- Develop guidelines for paediatric TB in collaboration with the subgroup of the Stop TB Partnership

Quality-assured bacteriology

Achievements

- Increased capacity for second-line DST
- Expanded the number of sputum smear examinations performed
- Included Kwazulu-Natal TB laboratory in the national health laboratory system (NHLS)
- Established NRL

Planned activities

- Strengthen the EQA programme for first- and second-line DST
- Establish re-checking for microscopy across the country
- Provide DST for first-line drugs in a total of 9 laboratories, and for second-line drugs in a total 5 laboratories
- Move from a sample-based to a patient-based MDR-TB recording and reporting system to improve reporting of numbers of cases of MDR-TB and XDR-TB and cross-checking between laboratory and health-facility registers

Drug supply and management system

Achievements

None reported

Planned activities

- Train workers in health facilities in management of drug stocks

TB/HIV, MDR-TB AND OTHER CHALLENGES

Collaborative TB/HIV activities

Achievements

- Strengthened integration of HIV/AIDS, STI and TB services at sub-district and facility levels through training
- Improved reporting and recording of TB/HIV activities through the implementation of the revised TB registers

Planned activities

- Ensure that routine screening for TB among HIV patients is included as policy for NAP
- Initiate reporting on collaborative TB/HIV activities

Diagnosis and treatment of multidrug-resistant TB

Achievements

- 9 doctors trained in Latvia on clinical management of drug-resistant TB

Planned activities

- Develop training material on MDR-TB and infection control
- Continue collaboration with WHO on training doctors and nurses in MDR-TB and XDR-TB
- Strengthen collaboration between MDR-TB units and laboratories for better follow-up of MDR-TB patients once discharged
- Revise guidelines for management of MDR-TB and XDR-TB
- Develop national guidelines on infection control for implementation in all health-care facilities
- Conduct a rapid assessment for infection control in 11 MDR-TB units
- Establish drug-resistance surveillance system

High-risk groups and special situations

Achievements

- Focused work on TB control in prison populations, among migratory workers

Planned activities

- Provide special incentives to TB patients, such as food and transport to health facilities

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

HEALTH SYSTEM STRENGTHENING, INCLUDING HUMAN RESOURCE DEVELOPMENT

Achievements
- Planning for TB control involved sector-wide and inter-sectoral collaboration
- Expanded PAL (PALSA) activities in Western Cape and Free State provinces
- Updated PALSA guidelines

Planned activities
- Monitor implementation of infection control in all health-care facilities
- Expand PALSA activities to additional provinces

ENGAGING ALL CARE PROVIDERS

Achievements
- Conducted training specifically for non-NTP health-care providers with particular emphasis on the mining sector

Planned activities
- Improve reporting of all TB cases from the mining sector to the NTP and harmonize referral between mining health facilities and NTP facilities

EMPOWERING PEOPLE WITH TB, AND COMMUNITIES

Advocacy, communication and social mobilization

Achievements
- Implemented ACSM activities in all 53 districts
- Engaged political and traditional structures
- Advocated for additional human and financial resources for TB

Planned activities
- Develop a national ACSM strategic plan
- Improve human resource capacity and ACSM at national level (1 ACSM unit) and at provincial level (1 dedicated ACSM staff member per province)

Community participation in TB care

Achievements
- Involved communities in all 53 districts in TB control; provided care for TB patients, and counselling and patient education
- Included poverty alleviation as part of the long-term planning of Stop TB activities

Planned activities
- Target advocacy campaign for patient education and counselling
- Increase community awareness about TB through targeted communication campaigns in particular around World TB Day

Patients' Charter

Achievements
The Patients' Charter was published in 2006 and was therefore not available for use in countries until then.
- Disseminated a general patients' charter (not TB-specific) in health facilities

Planned activities
- NTP to support dissemination of general patients' charter

RESEARCH, INCLUDING SPECIAL SURVEYS AND IMPACT MEASUREMENT

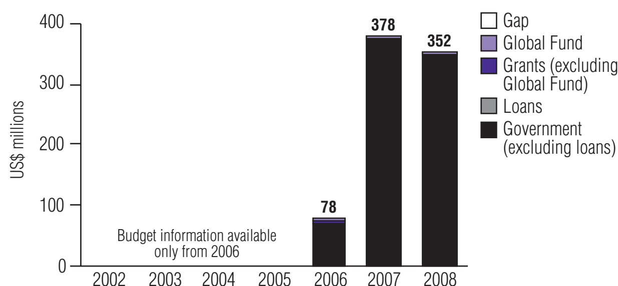
Achievements
- None reported

Planned activities
- Pilot PPM initiative with the private medical sector
- Conduct a demonstration project on rapid MDR-TB tests – FIND project (results available in 2008)
- Conduct a rapid assessment of XDR-TB in all MDR-TB units and TB hospitals (results available mid-2008)
- Assess current strategies to support TB patients
- Conduct a feasibility study on use of incentives for TB patients
- Study the cost of community TB care and best practice models for MDR -TB
- Carry out a national prevalence of disease survey
- Conduct a drug-resistance survey

FINANCING THE STOP TB STRATEGY

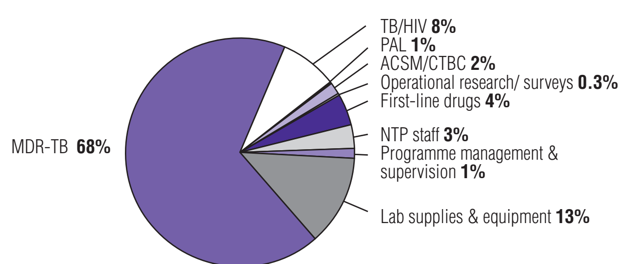
NTP budget by source of funding

Substantial increase in funding needs for 2007–2008 with full funding expected from the government



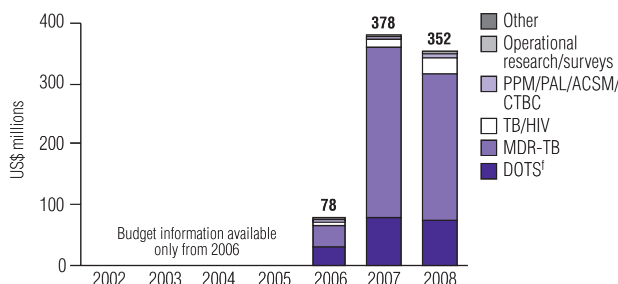
NTP budget by line item, 2008

By far the largest share of the budget is for diagnosis and treatment of MDR-TB



NTP budget by line item

Enormous increase in budget for 2007–2008, mainly for investments in hospital infrastructure for MDR-TB and XDR-TB patients

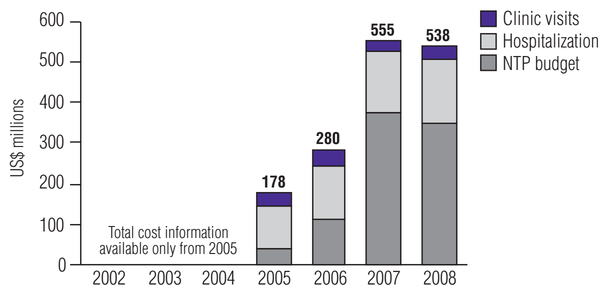


NTP funding gap by line item

No funding gaps have been reported since 2006

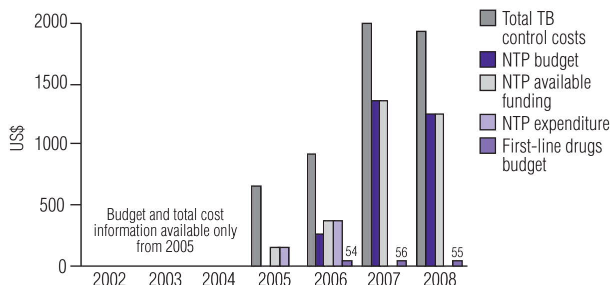
Total TB control costs by line item[4]

NTP budget will account for largest share of TB control costs in 2007–2008 if MDR-TB activities and capital investments are implemented as planned



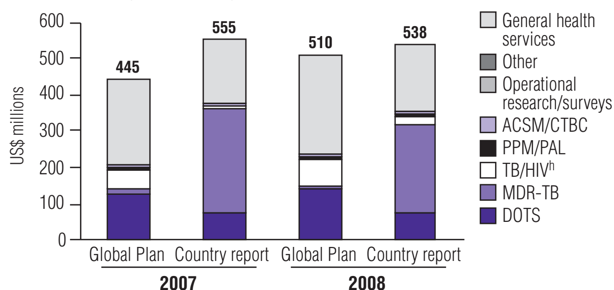
Per patient costs, budgets and expenditures[5]

Highest cost for TB control per patient in Africa



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

Projected number of new patients to be treated 2007–2008 higher in Global Plan, therefore higher budget for DOTS; much larger investment in MDR-TB in country plan mainly due to national policy to hospitalize patients for at least 6 months and associated need for renovation and expansion of hospital infrastructure



NTP budget and funding gap by Stop TB Strategy component

(US$ millions)	2007 BUDGET	2007 GAP	2008 BUDGET	2008 GAP
DOTS expansion and enhancement	78	0	77	0
TB/HIV, MDR-TB and other challenges	294	0	267	0
Health system strengthening	0.9	0	1.8	0
Engage all care providers	0	0	0	0
People with TB, and communities	2.9	0	5.5	0
Research	2.3	0	1.1	0
Other	0	0	0	0

Financial indicators for TB

	2007	2008
Government contribution to NTP budget (including loans)	100%	99%
Government contribution to total cost of TB control (including loans)	100%	100%
NTP budget funded	100%	100%
Per capita health financial indicators (US$)		
NTP budget per capita	7.9	7.4
Total costs for TB control per capita	12	11
Funding gap per capita	0	0
Government health expenditure per capita (2004)	158	
Total health expenditure per capita (2004)	390	

SOURCES, METHODS AND ABBREVIATIONS

a–h Please see footnotes page 169.

1 Incidence, prevalence and mortality estimates include patients infected with HIV. Estimates revised in 2006 following analysis of TB mortality data from vital registration system for years 1997–2005. Incidence pre-1997 and post-2005 estimated extrapolated using logistic curve fitted to 1997–2005 estimates.

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 774/100 000 pop and mortality 78/100 000 pop/yr.

3 To ensure adequate laboratory services coverage there should be at least one laboratory providing smear microscopy per 100 000 population, one culture facility per 5 million population and one DST facility per 10 million population.

4 Total TB control costs for 2005–2006 are based on expenditure, whereas those for 2007–2008 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.

5 NTP available funding for 2005–2006 is based on the amount of funding actually received, using retrospective data; available funding for 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.