

Uganda

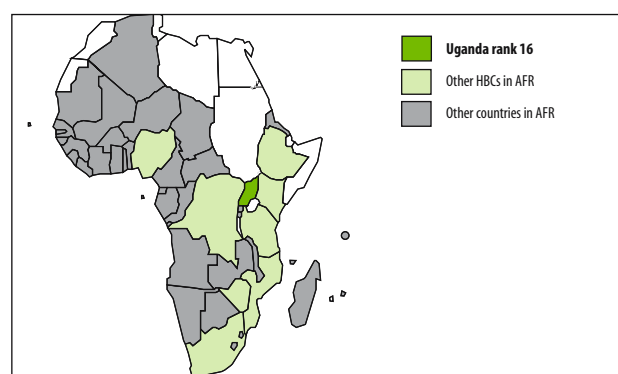
If the TB case-load has stabilized or begun to decline in Uganda, this is more likely to be due to falling HIV prevalence than to NTP performance. The estimated case detection rate is still well below the 70% target. Treatment success has been improving, but the overall result remains poor because few patients have documented smear conversions (31%) and because far too many die during treatment, default, or transfer without follow-up. Neither diagnosis by sputum smear microscopy nor direct observation of treatment are routine in all health units, and collaborative TB/HIV activities were under way in only 12 out of 56 districts in 2005. Without timely disbursement of GFATM funding, activities such as laboratory diagnosis, training and supervision will suffer, and the quality of the programme is unlikely to improve.

SURVEILLANCE AND EPIDEMIOLOGY

Population (thousands) ^a	28 816
TB burden, 2005 estimates (with 2.5 and 97.5 centiles) ^b	
Incidence (all cases/100 000 pop/yr)	369 295–452
Trend in incidence rate (%/yr, 2004–2005) ^c	-3.2
Incidence (ss+/100 000 pop/yr)	158 124–198
Prevalence (all cases/100 000 pop) ^c	559 408–742
Mortality (deaths/100 000 pop/yr) ^c	91 70–113
Of new adult TB cases (15–49yrs), % HIV+ ^d	30 23–36
New TB cases multidrug-resistant, 1997 (%) ^e	0.5 0.1–1.9
Previously treated TB cases multidrug-resistant, 1997 (%) ^e	4.4 0.5–15
Surveillance and DOTS implementation, 2005	
Notification rate (new and relapse/100 000 pop/yr)	142
Notification rate (new ss+/100 000 pop/yr)	71
DOTS case detection rate (new ss+, %)	45 36–58
DOTS treatment success (new ss+ cases, 2004 cohort, %)	70
Of new pulmonary cases notified under DOTS, % smear-positive	58
Of new cases notified under DOTS, % extrapulmonary	10
Of new smear-positive cases notified under DOTS, % in women	42
Of sub-national reports expected, % received at next reporting level ^f	100
Laboratory services, 2005^g	
Number of laboratories performing smear microscopy	465
Number of laboratories performing culture	2
Number of laboratories performing DST	2
Of laboratories performing smear microscopy, % covered by EQA	44
Management of MDR-TB, 2005	
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, 2005	
National policy of counselling and testing TB patients for HIV?	Yes
National surveillance system for HIV-infection in TB patients?	Yes
Of TB patients (new and re-treatment) notified, % tested for HIV	7.9
Of TB patients tested for HIV, % HIV+	51
Of HIV+ TB patients detected, % receiving CPT	–
Of HIV+ TB patients detected, % receiving ART	–
Budget and finance, 2007	
Government contribution to NTP budget (including loans, %)	18
Government contribution to total cost of TB control (including loans, %)	23
Government health spending used for TB control (%)	6.8
NTP budget funded (%)	92

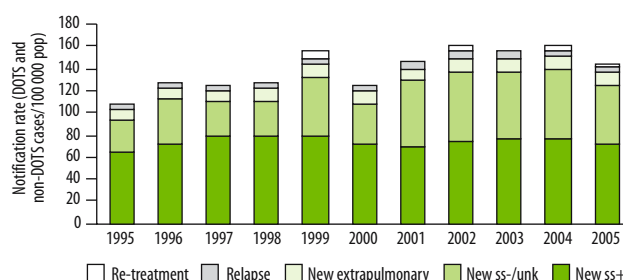
WHO African Region (AFR)

Rank based on estimated number of incident cases (all forms) in 2005



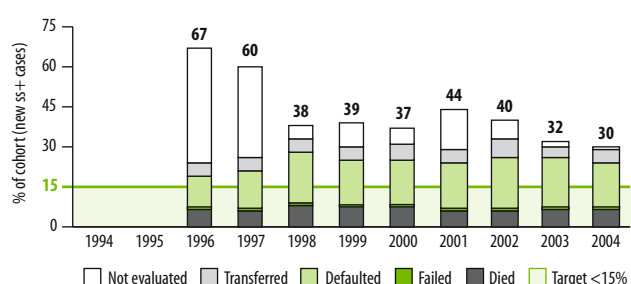
Case notifications

Notifications generally increasing in late 1990s, steady or declining since 2002; proportion of cases smear-positive declining slightly



Unfavourable treatment outcomes, DOTS

Evaluation of treatment outcomes improving, but default still major barrier to treatment success



DOTS expansion and enhancement	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
DOTS coverage (%)	–	0.0	100	100	100	100	100	100	100	100	100
DOTS notification rate (new & relapse/100 000 pop)	–	–	128	128	134	125	147	157	156	157	142
DOTS notification rate (new ss+/100 000 pop)	–	–	78	80	78	71	69	74	76	75	71
DOTS case detection rate (all new cases, %)	–	0.0	38	37	44	35	39	39	38	40	37
DOTS case detection rate (new ss+, %)	–	–	58	58	57	49	45	45	45	46	45
Case detection rate within DOTS areas (new ss+, %) ^h	–	–	58	58	57	49	45	45	45	46	45
DOTS treatment success (new ss+, %)	–	33	40	62	61	63	56	60	68	70	–
DOTS re-treatment success (ss+, %)	–	32	58	60	48	64	63	55	60	68	–

IMPLEMENTING THE STOP TB STRATEGY¹

Pursue high-quality DOTS expansion and enhancement

Budget (2006): US\$ 4.5 million
Budget (2007): US\$ 3.7 million

Gap (2006): US\$ 1.7 million
Gap (2007): US\$ 0.2 million

Achievements

- Received approval for GFATM round 6 proposal for TB control activities
- Initiated EQA for smear microscopy in 5 of 9 TB zones
- Engaged 3 NGOs to support TB control (HR, transportation, monitoring) in 7 districts and to support EQA (HR, transportation) in 1 district, funded through Uganda Stop TB Partnership and ISAC
- Provided refresher training by the NRL on microscopy for 70 laboratory staff in Kampala
- Obtained emergency supplies of first-line anti-TB drugs through WHO country office and GDF after suspension of round 2 GFATM grant
- Followed-up carefully Sub-national reports followed up carefully, resulting in complete and consistent national data, with treatment outcomes provided for more than 99% of new smear-positive patients registered in 2004
- Produced 3rd annual report of NTP activities

Planned activities

- Continue expansion of EQA in remaining 4 TB zones
- Sign GFATM round 6 grant agreement and prepare for implementation of activities, including procurement of first-line anti-TB drugs through the GDF

Challenges

- Addressing shortage and disproportionate distribution of staff
- Developing a comprehensive strategic HRD plan for TB control
- Including NTP-recommended TB control strategies in the basic training curricula for doctors and nurses
- Solving major shortage of funding, which became more severe following limited suspension of round 2 GFATM grant, contributing to first-line anti-TB drug stock-outs, lack of transportation for laboratory supervision, shortages of staff and insufficient functional microscopes
- Continuing the momentum of the Uganda Stop TB Partnership and its successes to address the HR crisis given the serious lack of funds
- Improving supervisory capacity at sub-district level, and including supervision in the district budget

Address TB/HIV, MDR-TB and other challenges

Budget (2006): US\$ 0.6 million
Budget (2007): US\$ 0.8 million

Gap (2006): US\$ 0.4 million
Gap (2007): US\$ 0.2 million

Achievements

- Developed guidelines, training manuals and communication strategy for collaborative TB/HIV activities
- Held quarterly meetings of a national TB/HIV coordinating committee
- Scaled up collaborative TB/HIV activities to 12 out of 56 districts
- Applied to the GLC for assistance for an MDR-TB pilot project in Kampala submitted by Makerere University in collaboration with the University of Medicine and Dentistry of New Jersey
- Collaborated with NGOs that provide health services to refugees and internally displaced persons in the north of the country to ensure access to TB services

Planned activities

- Establish sentinel surveillance on HIV prevalence among TB patients, and strengthen routine monitoring system to improve the capture of TB/HIV indicators
- Build capacity to scale up collaborative TB/HIV activities to more districts

Challenges

- Overcoming shortage of training funds, poor access to HIV testing and counselling and shortage of HIV test kits and co-trimoxazole
- Developing policy for management of MDR-TB patients
- Resolving absence of funding for second-line anti-TB drugs

Contribute to health system strengthening

Budget (2006): US\$ 0.01 million
Budget (2007): US\$ 0.03 million

Gap (2006): US\$ 0
Gap (2007): US\$ 0.02 million

Achievements

- Increased general laboratory services by training general, rather than TB-specific, microscopists, and provided high-quality binocular microscopes
- Improved supply chain management through training on drug logistics
- Established a national working group, developed a national PAL guideline and initiated a feasibility study on PAL
- Successfully piloted Performance Improvement Approach (PIA) activities in 2 districts in collaboration with the Regional Centre for Quality of Health Care

Planned activities

- Develop PAL training materials
- Finalize the feasibility study on PAL and develop a national plan for PAL implementation

Challenges

- Diminishing the potential threat to district TB/Leprosy supervisor post due to restructuring
- Mobilizing resources to carry out the PAL implementation plan

¹ Unless otherwise specified, achievements are for financial year 2005; planned activities are for financial year 2006. Budgets and gaps are for financial years.

IMPLEMENTING THE STOP TB STRATEGY

Engage all care providers

Budget (2006): US\$ 0.02 million
Budget (2007): US\$ 0.05 million

Gap (2006): US\$ 0
Gap (2007): US\$ 0.03 million

Achievements

- Collaborated with army (under Ministry of Defence), and police and prison (under Ministry of Internal Affairs) health systems to provide TB services according to the NTP
- Trained some private health-care providers on DOTS and provided generic NTP guidelines
- Strengthened Uganda Stop TB Partnership (now 27 members); formed 3 working groups to facilitate its operations

Planned activities

- Perform PPM situational analysis
- Disseminate the International Standards for Tuberculosis Care through planned regional workshops, quarterly review meetings at zonal and national levels and via the Uganda Stop TB Partnership
- Mobilize resources to strengthen further partnerships under Uganda Stop TB Partnership

Challenges

- Improving case-finding and case-holding in armed forces and prisons and by private health providers
- Developing a plan and identifying resources to expand and strengthen PPM

Empower people with TB, and communities

Budget (2006): US\$ 2.1 million
Budget (2007): US\$ 2.1 million

Gap (2006): US\$ 2.1 million
Gap (2007): US\$ 0.1 million

Achievements

- Included community-based TB care (in place in all districts) in the essential package of health services proposed by the National Health Policy and the Health Sector Strategic Plan II (2006–2010) of the MoH
- Involved women through a FIDELIS funded project (Safe Motherhood Initiative), to mobilize communities in selected districts for TB services

Planned activities

- Standardize community-based DOTS services to improve the quality of services, with a focus on outlier districts, and increase enrolment
- Develop and disseminate IEC materials based on the comprehensive TB/HIV communication strategy

Challenges

- Preparing an ACSM package that addresses the magnitude of TB, the constraints faced by the health services to meet global TB targets, the barriers to equitable access to services, and the potential community contribution to effective TB care and prevention
- Addressing lack of ACSM capacity among staff, and staff shortages to perform ACSM activities
- Strengthening monitoring and evaluation system for ACSM

Enable and promote research

Budget (2006): US\$ 0.4 million
Budget (2007): US\$ 1.0 million

Gap (2006): US\$ 0.02 million
Gap (2007): US\$ 0.2 million

Achievements

- Included operational research as part of the NTP strategic plan for 2006–2010
- Assigned NTP staff to oversee 2 projects on TB/HIV linked with Makerere University
- Conducted operational research on highly active antiretroviral therapy (HAART), and on drug resistance among new patients in Mulago

Planned activities

- Conduct national population-based prevalence of disease survey (with ability to provide sub-national estimates) in 2007, and repeat in 2011
- Continue operational research on HAART and commence study on barriers to integrating HIV care into district TB units

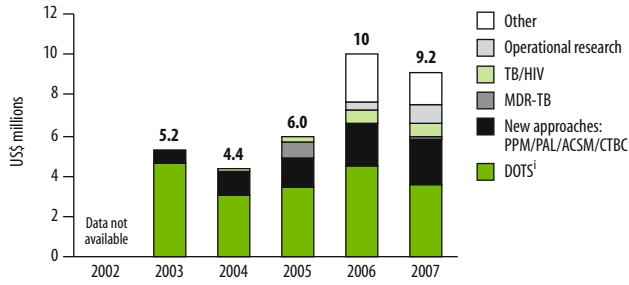
Challenges

- Mobilizing funding for operational research
- Coordinating operational research and disseminating findings

FINANCING THE STOP TB STRATEGY

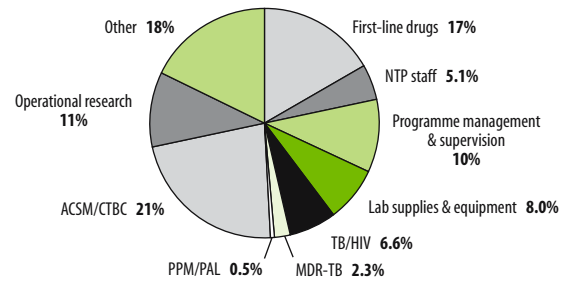
NTP budget by line item

Budget for operational research includes disease prevalence survey and DRS; Other includes international technical assistance



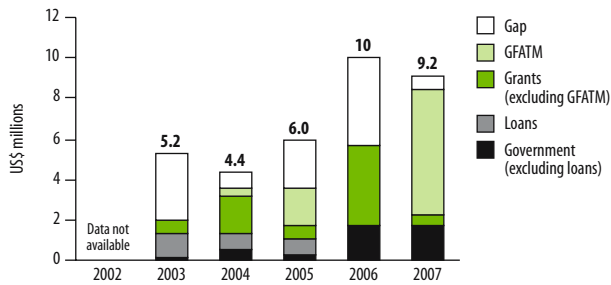
NTP budget by line item, 2007

DOTS, ACSM/CTBC and operational research account for 72% of the budget



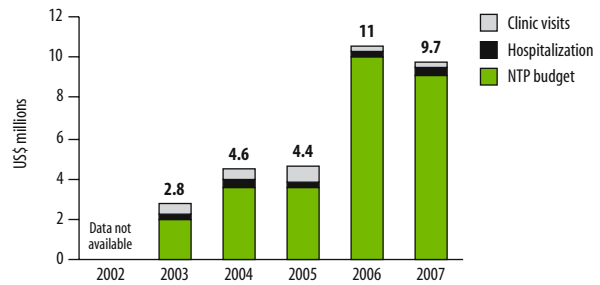
NTP budget by source of funding

Big increase in available funding in 2006–2007, mostly due to GDF support for first-line drugs in 2006 and GFATM in 2007, although funding gaps persist



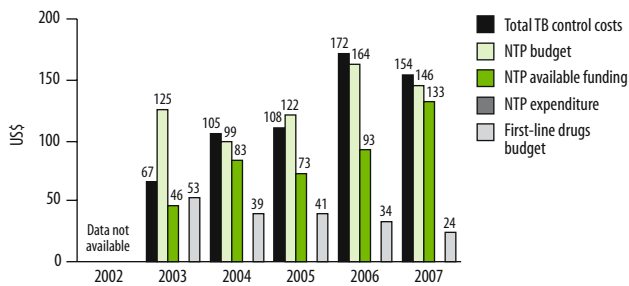
Total TB control costs by line item^j

Use of general health services is limited because of important role of community volunteers in providing DOT



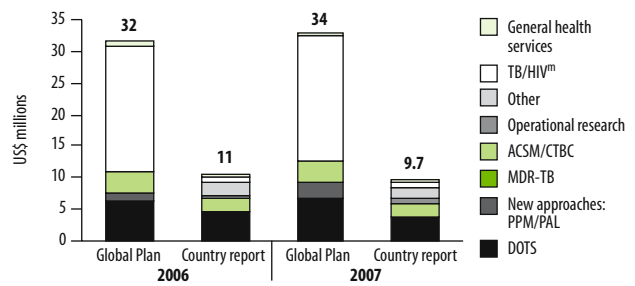
Per patient costs, budgets and expenditures^k

To date, NTP has not been able to report expenditure data



Comparison of country report and Global Plan:^l total TB control costs, 2006–2007

Global Plan includes much higher cost for TB/HIV, as in all other African HBCs



SOURCES, METHODS AND ABBREVIATIONS

^a World population prospects – the 2004 revision. New York, United Nations Population Division, 2005.
^b Incidence, prevalence and mortality estimates include patients infected with HIV. Incidence estimate originally based on assumption of 65% ss+ case detection rate in 1997. Trend in incidence estimated from 3-year moving average of notification rate (new and relapse).
^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 291/100 000 pop and mortality 56/100 000 pop/yr.
^d Estimate of HIV prevalence in incident TB cases (15–49 yo) derived from UNAIDS estimate of HIV prevalence in the general population, using assumed incidence rate ratio of 6.
^e 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. *Journal of Infectious Diseases*, 2006, 194:479–485.
^f Completeness of reporting assessed at lowest level in reporting hierarchy for which information is available.
^g 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, most countries will need one culture facility per 5 million population and one DST facility per 10 million population.
^h Case detection within DOTS areas calculated by dividing national case detection rate (new ss+) by DOTS coverage.
ⁱ DOTS includes the following components shown in the pie chart at right: first-line drugs, NTP staff, programme management and supervision, and laboratory supplies and equipment.
^j Total TB control costs for 2003–2005 are based on available funding, whereas those for 2006–2007 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.
^k NTP available funding for 2003–2007 is based on prospectively reported budget data, and estimated as the total budget minus any reported funding gap.
^l Estimates in the Global Plan were presented for regions rather than countries. See Methods for explanation of calculation of individual country estimates from regional estimates.
^m Global Plan estimates cover the full costs of collaborative TB/HIV activities, but these costs may be budgeted for by either the NTP or the National AIDS Programme. In this graph, country reports include only the NTP budget. This may explain the apparent discrepancy between the Global Plan and country reports.
 – 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.