COUNTRY PROFILE

Zimbabwe

Zimbabwe adopted the DOTS strategy in 1992 and has been reporting nationwide coverage since 2000. TB treatment is provided free of charge to all patients and an adequate supply of anti-TB drugs is assured until 2006. Nevertheless, Zimbabwe still has some way to go to reach the global targets for case detection and treatment success. Many difficulties face TB control efforts, including insufficient funding, severe staff shortages and the impact of the HIV/AIDS epidemic. WHO estimates that, in 2003, 69% of TB patients were HIV-positive. Efforts to address the needs arising from widespread TB/HIV coinfection are still in the developmental stage.

System of TB control

Zimbabwe's NTP was established in the 1960s. In 1983, the government introduced a policy of integrating all TB control activities into the general health services. The DOTS strategy was officially adopted by the NTP in 1997. The NTP operates at three levels: central, provincial/local authority and district. At the central level, the NTP is part of the HIV/AIDS/STI and TB unit and is responsible for planning, coordination, monitoring, training and evaluation of programme performance. At the provincial level, training of staff and collection and analysis of TB data are the responsibility of the provincial epidemiology and disease control officer. Four local authorities (Bulawayo, Gweru, Harare and Mutare) run their own TB control programmes, but follow national guidelines and report to the NTP. Mission hospitals, health services of the uniformed forces and some large private organizations also provide TB control services according to national guidelines. The district is the basic management unit for TB control and is responsible for diagnosis, treatment and follow-up of patients, as well as supervision and monitoring of treatment, registration and compilation of quarterly and annual reports. There are rural health centres or municipal clinics in most urban localities that function as primary health-care facilities. These centres and clinics assist in the identification and referral of TB suspects, supervision and observation of treatment and follow-up of contacts and defaulters.

The laboratory network consists of an NRL, 10 intermediate (province/city) laboratories and 96 peripheral laboratories. All intermediate and peripheral laboratories do smear microscopy and refer re-treatment and failure cases for culture and drug susceptibility testing to the NRL. In addition, the NRL is responsible for providing overall assistance and EQA to all laboratories in the network. There are more than 30 private laboratories that do smear microscopy for private and public providers and that participate in the NTP laboratory network, but they are not involved in the NRL EQA.

Surveillance and monitoring

The total number of TB cases reported in Zimbabwe rose from 6000 in 1988 to 60 000 in 2002. However, the rate of increase has been slowing since 1997, and the number of reported cases fell between 2002 and 2003. The smear-positive case notification rate has been fairly stable since 1997, so the proportion of cases diagnosed as smear-positive has fallen. This proportion was only 27% in 2003, indicating poor diagnostic technique. In 2003, Zimbabwe experienced nationwide industrial action in the public health sector for three months, which adversely affected diagnosis and treatment of TB. It is not clear whether these trends reflect the underlying trends in incidence or variations in the quality of reporting, but the pattern is similar in some other eastern and southern African countries with high rates of HIV infection. Case detection under DOTS was in the range 40–50% between 2000 and 2003, but further investigation is needed to verify this estimate.

The treatment success rate was 67% for patients registered in 2002 and has remained at this level since 1998. In the 2002 cohort, 11% of patients died and 22% either defaulted or were transferred between

PROGRESS IN TB CONTROL IN ZIMBABWE

Indicators	
DOTS treatment success, 2002 cohort	67%
DOTS case detection rate, 2003	42%
NTP budget available, 2004	58%
Government contribution to NTP budget, including loans, 2004	27%
Government contribution to total TB control costs, including loans, 2004	59%
Government health spending used for TB control, 2004	4%

Major achievements

- Training of all laboratory staff and strengthening of laboratory supervision
- Training of prison health workers on DOTS
- Joint MoH/WHO review of the NTP in November 2003

Major planned activities

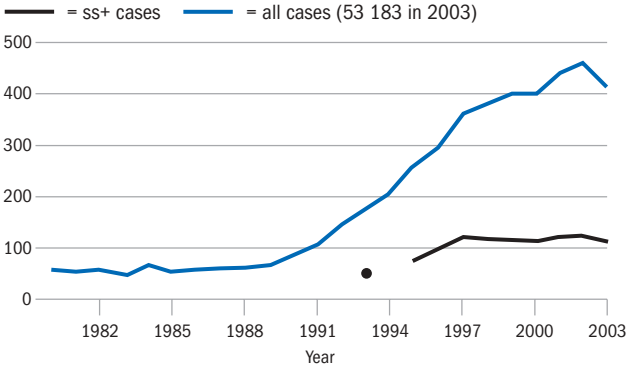
- Strengthen the EQA system in both public and private laboratories
- Improve the recording and reporting system that links the national reference laboratory and public and private laboratories
- Introduce DOTS to prison services and train prison health-care workers
- Introduce community-based DOTS in one pilot district
- Introduce FDCs
- Revise national TB manual
- Train TB microscopists

ZIMBABWE

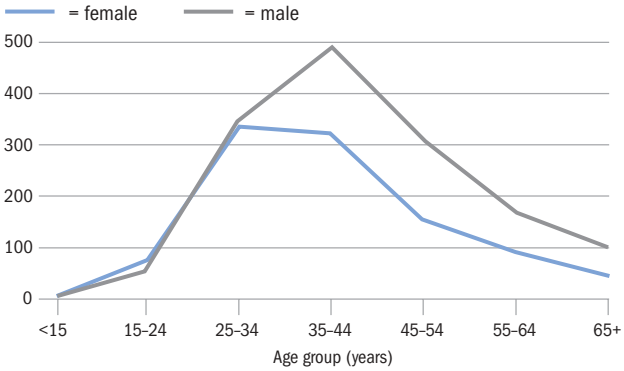
LATEST ESTIMATES[a]	
Population	**12 891 242**
Global rank (by est. number of cases)	19
Incidence (all cases/100 000 pop/year)	659
Incidence (new ss+/100 000 pop/year)	265
Prevalence (all cases/100 000 pop)	660
TB mortality (all cases/100 000 pop/year)	153
TB cases HIV+ (adults aged 15–49, %)	69
New cases multidrug resistant (%)	1.9

TRENDS	2000	2001	2002	2003
DOTS coverage (%)	100	100	100	100
Notification rate (all cases/100 000 pop)	402	441	461	413
Notification rate (new ss+/100 000 pop)	114	120	124	112
Detection of all cases (%)	65	68	70	63
Case detection rate (new ss+, %)	46	46	47	42
DOTS case detection rate (new ss+, %)	46	46	47	42
DOTS case detection rate (new ss+)/coverage (%)	46	46	47	42
DOTS treatment success (new ss+, %)	69	71	67	–

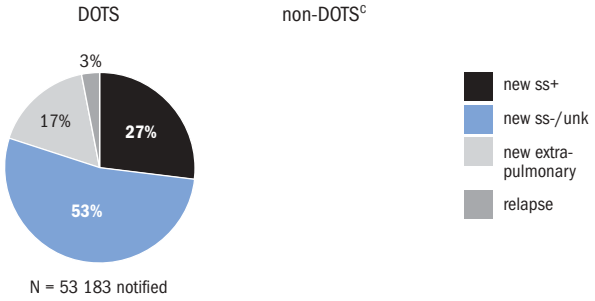
Notification rate (per 100 000 pop)



Notification rate by age and sex (new ss+)[b]

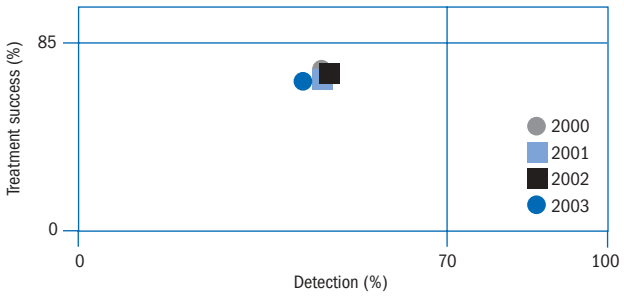


Case types notified

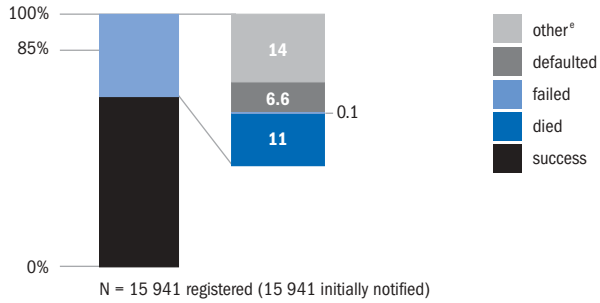


N = 53 183 notified

DOTS progress towards targets[d]



DOTS treatment outcomes (new ss+)



N = 15 941 registered (15 941 initially notified)

Non-DOTS treatment outcomes (new ss+)

Notes

ss+ indicates smear-positive; ss-, smear-negative; pop, population; unk, unknown.

Absence of a graph indicates that the data were not available or applicable.

[a] See Methods for data sources. Prevalence and mortality estimates include patients with HIV.

[b] The sum of cases notified by age and sex is less than the number of new smear-positive cases notified for some countries.

[c] Non-DOTS is blank for countries which are 100% DOTS, or where no non-DOTS data were reported.

[d] DOTS case detection rate for given year, DOTS treatment success rate for cohort registered in previous year.

[e] "Other" includes transfer out and not evaluated, still on treatment, and other unknown.

treatment centres without follow-up. Among patients registered for re-treatment, 20% were reported to have died, 16% defaulted or transferred without follow-up.

While it would be valuable to assess the impact of DOTS on the burden of TB in Zimbabwe, the immediate priority is to evaluate more accurately the progress made in programme implementation (case detection, treatment success) against the background of changing TB incidence, prevalence and death rates.

Improving programme performance

The high rates of HIV infection together with unfavourable socioeconomic conditions have had an impact on general health services in Zimbabwe in the past year, and will also affect TB control activities. A national review of the NTP by MoH/WHO carried out in November 2003 included a review of activities at the central level, in all eight provinces and the three major cities (Bulawayo, Chitungwiza and Harare). Recommendations were made on strengthening existing TB control and collaborative TB/HIV activities in order to reverse the downward trends in case detection and treatment success. Senior ministry officials are committed to improving TB control and a national TB policy, strategic plan and manual have been developed. However, the strategic plan for DOTS expansion has not been adopted nationally and there are serious financial and infrastructural deficiencies at all levels.

There is a severe shortage of human resources at all levels, especially at the central level. The NTP continues to be adversely affected by the departure of experienced staff from the public to the private sectors and to other countries. Five of the eight provincial TB coordinators were appointed in the past year and many districts have no TB coordinators. The NTP is planning to identify districts without coordinators, appoint new staff and ensure that all district hospitals have a staff member responsible for TB. Staffing at the central level has been strengthened by the appointment of a national TB coordinator to assist the NTP manager and by NTP advisers and officers that have been seconded by IUATLD and CDC. Training for staff has been intensified and efforts have been made to train prison health workers on the DOTS strategy.

IEC material is generally available at most facilities; however, it is produced centrally, which reduces its impact in areas where other languages are spoken. No national advocacy plan has been developed.

The supply of high quality anti-TB drugs is guaranteed until the end of 2006, with funding from the European Union, but FDCs and paediatric formulations are not available. The NTP intends to introduce FDCs in early 2005. The last national DRS was done in 1994–1995, when the prevalence of MDR-TB in previously untreated patients was 1.4%. No recent data on the prevalence of MDR-TB are available, but another DRS is planned for 2005. The draft policy document on MDR-TB management is awaiting finalization. Consequently, no second-line drugs are currently being used.

Other areas where programme performance needs to be improved include diagnostic laboratory services, TB/HIV coordination and links with other health-care providers.

Diagnostic and laboratory services

Training of laboratory staff and strengthening of laboratory supervision were undertaken in 2003–2004, but many facilities still have untrained staff. Similarly, while EQA systems were strengthened, financial and staffing constraints mean that some quality assurance activities were not routinely performed or have been suspended at national and provincial levels. A major problem for the laboratory services in Zimbabwe is the shortage of staff associated with the elimination of many posts for microscopists, and the movement of trained staff to the private sector or to other countries. The country is planning to train basic-level TB microscopists in 2005 to help to rectify this problem.

TB/HIV coordination

The number of AIDS cases and AIDS-related deaths continues to increase in Zimbabwe. There is no routine HIV surveillance among TB patients, but WHO estimates that 69% of adult TB patients are infected with HIV. The government has set up units to manage opportunistic infections, including provision of co-trimoxazole and fluconazole to PLWHA, and plans to begin delivery of ART in Harare and Mpilo hospitals in the near future. The government has also signed a policy on the use of co-trimoxazole among HIV-positive TB patients, though not yet on the use of isoniazid preventive therapy in PLWHA.

A TB/HIV working group has been set up and collaborative TB/HIV activities have been planned. To date, few of these activities have started. WHO is funding a community TB/HIV care initiative in one district and HIV surveillance among TB patients is planned for 2005.

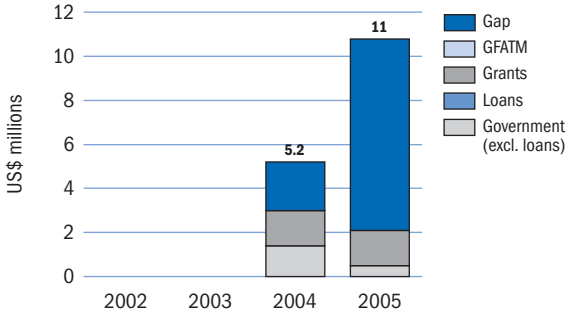
Links with other health-care providers

Private laboratories have been included in the NTP laboratory network. A small-scale PPM-DOTS project involving private practitioners and hospitals is being piloted in Harare. The NTP is involving medical colleges, specialist TB hospitals, prison health services, mission hospitals and health services operated by the police and the armed forces in DOTS implementation. A few large agricultural and mining companies also provide TB control services to their employees and dependants according to national guidelines.

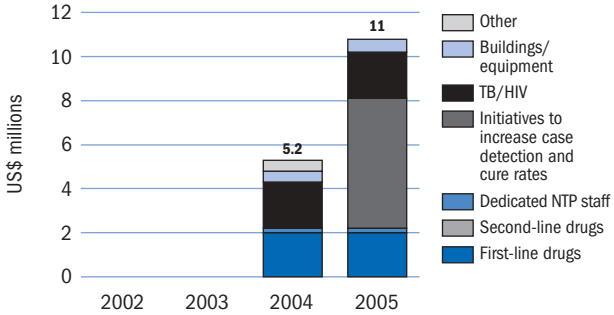
Partnerships

Technical assistance is provided by IUATLD and WHO. The CDC provides laboratory support (reagents and other consumables) and the EU provides funding for anti-TB drugs. There is a national TB expert committee that guides policy development and implementation, but there is currently no interagency body coordinating TB control. However, a country coordination committee meets monthly and functions as the national TB/HIV coordinating body.

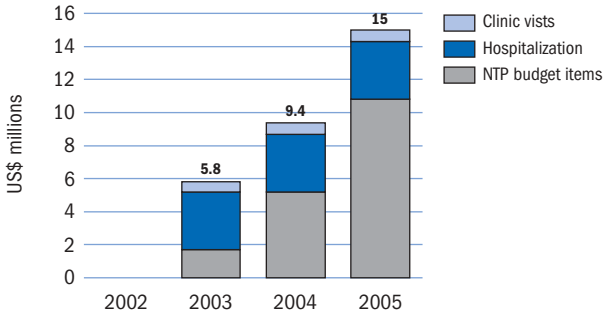
(a) NTP budget by source of funding



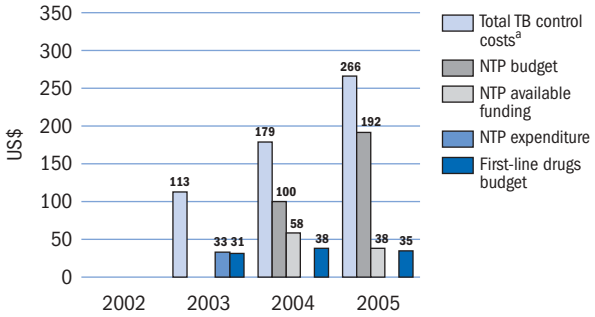
(b) NTP budget by line item



(c) Total TB control costs by line item[a]



(d) Per patient costs, budgets, available funding and expenditures



[a] Total TB control costs for 2003 are based on expenditures, whereas those for 2004 and 2005 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.

Budgets and expenditures

The NTP budget for 2005 is US$ 11 million, compared with US$ 5 million in 2004 (about US$ 200 per patient vs US$ 100 per patient). The increased budget reflects plans to increase spending on various initiatives, including collaborative TB/HIV activities, training, monitoring and evaluation, and community TB care. However, available funding is limited, at only around US$ 2 million in 2005. This is down from available funding of US$ 3 million in 2004, but a slight increase compared with expenditures of US$ 1.7 million in 2003. The government's contribution to funding is likely to be higher than reported, as financial support for buildings and equipment is not reflected in disease control programme budgets. Most of the grant funding for first-line drugs is provided by the EU through the essential drugs programme and has remained constant between 2003 and 2005 at around US$ 1.6 million each year (equivalent to about US$ 35 per patient treated). At around US$ 9 million, the funding gap in 2005 is equivalent to 80% of the budget. Zimbabwe is likely to apply to the GFATM in round 5 to address this gap.

The total cost of TB control, which includes the cost of dedicated TB beds and clinic visits during treatment as well as items included in the NTP budget, was about US$ 6 million in 2003 (just over US$ 100 per patient treated). If the 2005 NTP budget is fully funded and spent, this will increase to about US$ 15 million in 2005 (about US$ 270 per patient treated). The estimated cost of dedicated TB hospital beds, at US$ 3.5 million, is based on an estimate of 1660 dedicated TB beds, including those in mission hospitals. However, since occupancy in district hospitals is decreasing (for example because of a new admission policy introduced in the late 1990s) and beds are being reallocated to other diseases, this may be an overestimate.