

Brazil

Overview of TB control system

Political changes following the 2002 general election led to reorganization of the Ministry of Health, and to adjustments in policies and plans on health care. Decentralization of public health services has presented a challenge to the standardization and implementation of TB diagnosis, treatment, and evaluation. However, TB control was a priority under Brazil's Family Health Programme, and remains a priority now that the programme is overseen by the Vice-Ministry for Health Surveillance. DOTS programmes, where implemented, have demonstrated that TB control can be effectively integrated within the primary health care system.

Surveillance, planning, operations

Despite the low coverage of DOTS, and the growing prevalence of HIV infection, case notification rates have been falling for many years in Brazil. This downward trend may reflect a real decline in incidence. DOTS population coverage increased to 32% in 2001, but appears to have fallen since, possibly because DOTS implementation in all states and municipalities was reviewed during 2002. Notwithstanding low population coverage, the large fraction of cases detected from all sources (84%) suggests that DOTS could expand rapidly, because the majority of cases are already found and reported by the public health system. However, as more patients have been treated under DOTS, the treatment success has fallen. It was 67% for the 2001 cohort, and smear conversion was recorded for only 36% of patients. Nine percent of patients defaulted, and 15% were not evaluated. Moreover, only 34% of all smear-positive

patients notified in 2001 were registered for treatment in the 2001 cohort; the fate of the remaining 66% is unknown.

The strategic plan for 2001–5 has been approved by the National TB Control Programme (PNCT) and by the Tripartite Intermanagerial Commission (CIT). Until August 2003, there was no clear implementation plan to guide DOTS expansion in the municipalities but, with the development of local action plans, municipal DOTS programmes should advance more quickly. A ministerial order concerning financial incentives for expansion of TB control activities within primary health care was issued at the same time, arising from a national meeting to evaluate TB control activities. A workshop to plan TB control throughout Brazil was held by the National Coordination for Endemic Diseases group in November 2003.

Efforts to improve diagnosis began in July 2003, and included training in smear microscopy, laboratory management, and epidemiological surveillance in the Amazon states.

Programme monitoring and supervision were strengthened through the creation of the National Group for Monitoring, Mobilization, and Intensification of Activities for Leprosy Elimination and TB Control. 102 supervisory visits were conducted in 19 states between December 2001 and October 2002, but the impact of these visits has not yet been measured. Efforts to strengthen human resource capacity by training staff in 329 municipalities were hampered by poor planning.

A national HIV surveillance system for TB patients is in place. The WHO estimate of HIV prevalence among adult TB patients is approximately 4%, though the true prevalence could be higher. TB/HIV coordinating bodies are organized at national, state, and municipal levels. All collaborative TB/HIV activities, except cotrimoxazole preventive therapy, are implemented exclusively by the MoH in all 27 states.

A drug resistance survey was completed in 1996, where MDR appeared to be of relatively low prevalence.

PROGRESS IN TB CONTROL IN BRAZIL

Indicators

| | |
|--|------|
| • Treatment success 2001 cohort | 67% |
| • DOTS detection rate, 2002 | 10% |
| • NTP budget available, 2003 | 100% |
| • Government contribution to NTP budget, including loans, 2003 | 100% |
| • Government contribution to total TB control costs, including loans, 2003 | 100% |
| • Government health spending used for TB, 2003 | 0.2% |

Constraints to achieving targets

- Weak political commitment at state level as a result of rapid decentralization, leading to variable quality in DOTS services
- Inconsistent monitoring of treatment outcomes
- Poor planning for staff training

Remedial actions needed

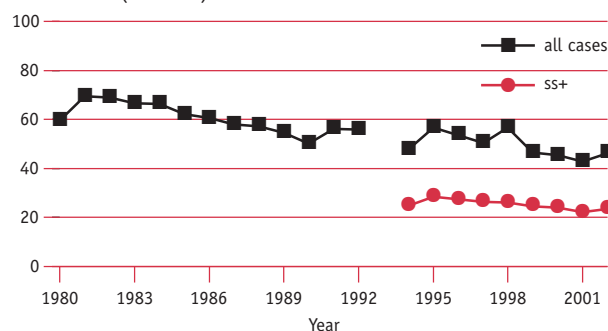
- Improve coordination among federal, state, and municipal health services to follow plans developed in November 2003
- Increase staff, training, and supervision to improve monitoring of treatment
- Develop staff training plan

BRAZIL

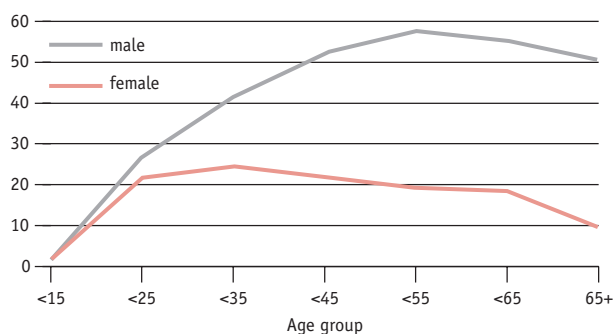
| LATEST ESTIMATES ^a | | TRENDS | 1999 | 2000 | 2001 | 2002 |
|---------------------------------------|--------------------|---|------|------|------|------|
| Population | 176 257 330 | DOTS population coverage (%) | 7 | 7 | 32 | 25 |
| Global rank (by est. number of cases) | 15 | Notification rate (all cases/100 000 pop) | 47 | 45 | 43 | 46 |
| Incidence (all cases/100 000 pop) | 62 | Notification rate (new ss+/100 000 pop) | 25 | 24 | 22 | 23 |
| Incidence (new ss+/100 000 pop) | 28 | Detection of all cases (%) | 67 | 67 | 66 | 74 |
| Prevalence (ss+/100 000 pop) | 42 | Detection of new ss+ cases (%) | 79 | 80 | 76 | 84 |
| TB mortality per 100 000 pop | 8 | DOTS detection of new ss+ (%) | 4.0 | 7.6 | 8.1 | 10 |
| % of adult (15-49y) TB cases HIV+ | 3.8 | DOTS detection of new ss+/coverage(%) | 57 | 109 | 25 | 39 |
| % of new cases multi-drug resistant | 0.9 | DOTS treatment success (new ss+, %) | 89 | 73 | 67 | — |

Notification rate (per 100 000 pop)

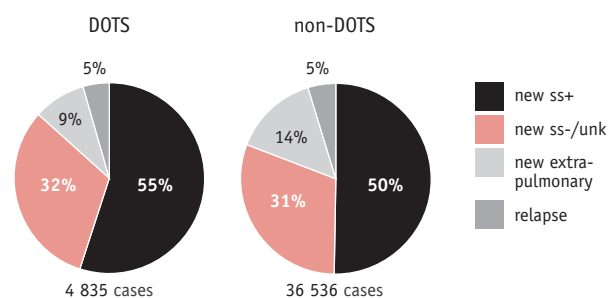
Notification (all cases) = 176 257 330 in 2002



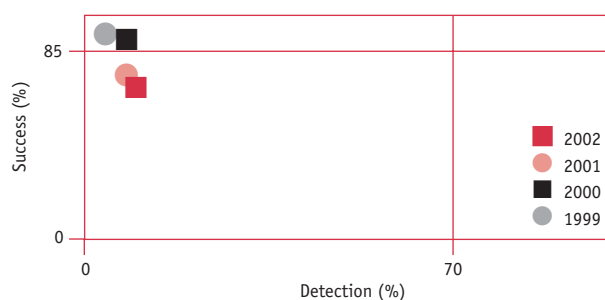
Notification rate by age and sex (new ss+)^b



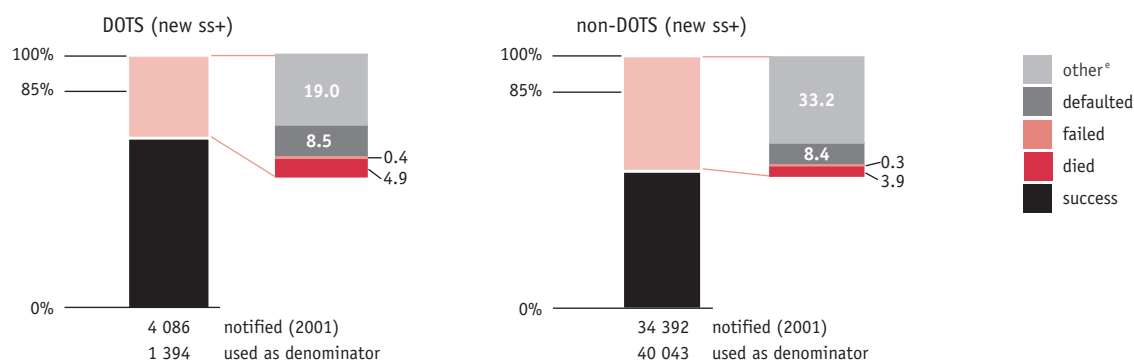
Case types notified^c



DOTS progress towards targets^d



Treatment outcomes^e



Notes

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

^a See Methods for data sources.

^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 progress towards targets: DOTS detection rate for given year, DOTS success rate for cohort registered in previous year.

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

BRAZIL

Budget estimates, existing funding, and budget gaps for fiscal year 2003, US\$ millions

| | REQUIRED FUNDING | EXPECTED FUNDING | | | | FUNDING GAP |
|---|------------------|------------------|----------|----------|----------|-------------|
| | | GOVERNMENT | LOANS | GRANTS | OTHER | |
| NTP budget | | | | | | |
| Drugs | 4.0 | 4.0 | — | — | — | — |
| Dedicated staff working exclusively for TB control | — | — | — | — | — | — |
| New activities to raise case detection and cure rates | — | — | — | — | — | — |
| Buildings, equipment, vehicles | — | — | — | — | — | — |
| All other line items | 11.5 | 11.5 | — | — | — | — |
| TOTAL NTP BUDGET | 15.5 | 15.5 | — | — | — | — |
| Costs not covered by NTP budget^{a,b} | | | | | | |
| Hospital stay | 14.6 | 14.6 | — | — | — | — |
| Clinic visits for DOT and monitoring | 11.0 | 11.0 | — | — | — | — |
| TOTAL COSTS NOT COVERED BY NTP BUDGET | 25.6 | 25.6 | — | — | — | — |
| TOTAL TB CONTROL COSTS | 41.1 | 41.1 | — | — | — | — |

— Indicates zero; NA, not available

^a WHO estimates, data not provided by the NTP

^b Assuming that the number of cases treated in 2003 will be the same as the number of notified in 2002. Estimates differ from those in the 2003 report due to a change in methods made possible by the availability of new data. See Methods section for full details.

Given the burden of disease in the country the absolute number of MDR cases is considerable. Brazil established a notification system for MDR in 2000. A second nationwide survey carried out by state is planned for 2004.

A guide on appropriate drug management has been further developed for states and municipalities. National and regional health promotion activities are improving public knowledge about TB. These activities include National TB Week, as well as participation of medical students in TB awareness and control efforts.

Partnerships

An NICC was created in 2001 but only informal meetings with selected partners have taken place so far. A

formal meeting, with a structured agenda and the participation of all partners, is proposed for 2004. A national executive secretary was hired to intensify TB control actions and a technical advisory committee on TB was created.

WHO/PAHO is the technical organization of reference for the country. A new WHO/PAHO international adviser will be stationed in Brasilia after a gap of 1 year. IUATLD and CDC are providing technical support in specific projects. CDC also collaborates with local institutions, and contributes to strengthening country capacity through an exchange of knowledge. GLRA and DFB support selected states. Brazilian NGOs have helped to build national technical partnerships.

Budgets and expenditures

NTP expenditures in fiscal year 2002 (from 1 January) were US\$ 13.5 million, of which US\$ 3.7 million was for drugs. All expenditures were funded by the government. For fiscal year 2003, the NTP budget was US\$ 15.5 million, also fully funded by the government. Costs associated with TB control that were not funded from the NTP budget amounted to an estimated US\$ 25.6 million, of which US\$ 14.6 million was for hospital admissions during treatment and US\$ 11 million was for clinic visits during treatment. Total TB control costs for 2003 can therefore be estimated at US\$ 41.1 million, about US\$ 704 per patient.