



## TUBERCULOSIS PROFILE



Tuberculosis remains an important public health problem in Brazil, which ranks 16th among the 22 countries worldwide with a high TB burden. Together with Peru, Brazil accounts for 50 percent of all TB cases in Latin America. According to the *WHO Global TB Report 2006*, Brazil reported approximately 110,000 new TB cases in 2004 and an estimated incidence of 60 cases per 100,000 people. Brazil's budget for TB control more than doubled between 2002 and 2006 due to renewed political commitment to Directly Observed Therapy, Short-Course (DOTS) as the official TB policy. However, the case detection rate of sputum smear-positive (SS+) cases was still well below the 70 percent target in 2004. Official figures estimate that 17 percent of adult TB patients are infected with HIV, although this varies from more than 20 percent in the port city of Santos in Sao Paulo State to less than 10 percent in other areas.

Brazil adopted DOTS in 1998, initially implementing it in demonstration areas in four states. Although DOTS coverage has been low, it increased from 7 percent in 2000 to 52 percent in 2004. By 2007, the Ministry of Health (MOH) intends to implement DOTS in 100 percent of 315 municipalities that are responsible for 70 percent of Brazil's TB disease burden.

Country population	183,912,538
Global rank out of 22 high-burden TB countries	16
Estimated number of new TB cases	109,672
Estimated TB incidence (all cases per 100,000 pop.)	60
DOTS population coverage (%)	52
Rate of new sputum smear-positive (SS+) cases (per 100,000 pop.)	23
DOTS case detection rate (new SS+) (%)	47
DOTS treatment success rate in 2003 (new SS+) (%)	83
Estimated adult TB cases HIV+ (%)	17.0
New TB cases multidrug-resistant (%)	0.9

Note: All data are for 2004 except where noted otherwise.  
Source: Global Tuberculosis Control: WHO Report 2006.

### USAID Approach and Key Activities

USAID is working with Brazil's National TB Control Program (NTP) and the Pan American Health Organization (PAHO) to combat Brazil's TB epidemic. USAID is strategically focused on the states of Rio and Sao Paulo because these two states contribute more than 40 percent of new TB cases every year and because co-infection with HIV runs as high as 25 percent in some major cities of these two states. Moreover, there is the threat of increasing drug resistance in these areas because of immigration, so detection and treatment must be both timely and complete.

Between 2001 and 2005, USAID funds for TB programming in Brazil averaged \$2.6 million per year. USAID support to the NTP, as well as to state TB programs in Pernambuco (Recife), Sao Paulo, and Rio de Janeiro State, includes:

- Enhancing monitoring and evaluation capacity through a TB registry
- Supporting a task force in the supervision of DOTS implementation at the state level

- Strengthening laboratory services and development of guidelines
- Decentralizing treatment of patients with multidrug-resistant TB (MDR-TB)
- Improving re-treatment drug regimens and developing TB drug combinations
- Aiding information, education, and communication activities
- Supporting an innovative border partnership between Brazil and Peru that focuses on preventing and treating communicable and vector-borne diseases such as TB, malaria, and HIV/AIDS

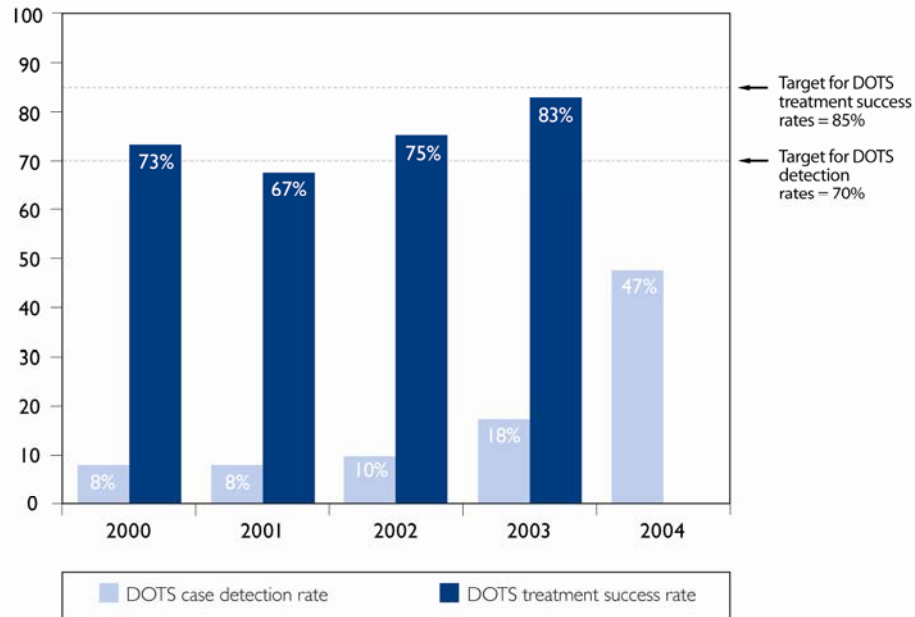
### **USAID Program Achievements**

USAID has worked closely with the MOH at the national, state and municipal levels, as well as PAHO, the U.S. Centers of Disease Control and Prevention, and the Tuberculosis Coalition for Technical Assistance (TBCTA Project) to accelerate DOTS expansion. When USAID's program to expand DOTS began, only 7 percent of Brazilians had access to health services that provided DOTS. Now, 64 percent of Brazil's 315 priority municipalities are offering the treatment.

USAID support has contributed to the following achievements:

- Funded training for 32,000 health professionals, including laboratory technicians, program managers, physicians, nurses and outreach workers at all levels of the health care system
- Increased the national pulmonary SS+ case detection rate in DOTS services from 23 percent in 2003 to 53 percent in 2004 through support to laboratory managers in quality control and management of information systems and to technicians specializing in TB microscopy
- Reduced sputum smear examination turnaround time to 24 hours for outpatients and four hours for emergency room patients in the São Paulo and Rio de Janeiro State project areas
- Supported the government of Brazil to adopt key international standards for prevention and control, as well as to provide anti-TB drugs free to affected populations
- Assisted personnel from 27 state public health laboratories in drug sensitivity testing, with all laboratories passing a proficiency test
- Ensured the use of the TB registry at the health service level and accurate reporting to the National Health Information System, resulting in an increase in known treatment outcomes
- Supported the use of a management tool for state laboratory quality control and a laboratory management information system for selecting, ordering, and purchasing materials to be used in the TB drug quality testing program
- Developed a joint NTP-National HIV/AIDS Coordination Committee action plan that includes measures for testing TB patients for HIV infection and screening HIV/AIDS patients for TB
- Developed research protocols for studying the prevalence of MDR-TB and TB-HIV co-infection
- Increased access to DOTS through primary health care services, using family health and community outreach workers in poor communities, which resulted in an increased supervised treatment coverage from 7 to 54 percent
- Leveraged \$12 million in air time from major television networks to raise public awareness
- Provided technical assistance to the government to win approval for funding of over \$27 million from the Global Fund to Fight AIDS, Tuberculosis and Malaria

## Case Detection and Treatment Success Rates Under DOTS



Note: DOTS treatment success rate for 2004 will be reported in the 2007 Global Report.  
Source: Global Tuberculosis Control: WHO Report 2006.

### Partnerships

Partnerships are an important element in combating TB in Brazil. USAID works with the state and municipal health secretariats of Rio de Janeiro, Sao Paulo, and Pernambuco; the Tuberculosis Coalition for Technical Assistance (the TBCTA Project); Johns Hopkins University; Management Sciences for Health; and the Brazilian nongovernmental organization, BEMFAM. The TBCTA Project members are the KNCV Tuberculosis Foundation, WHO/PAHO, the U.S. Centers for Disease Control and Prevention, the International Union Against Tuberculosis and Lung Disease, the American Thoracic Society, and the American Lung Association. The Hélio Fraga National Reference Laboratory and the Brazilian Pulmonary Society also have key technical roles.