Key findings

The global TB epidemic

TB is still a major cause of death worldwide, but the global epidemic is on the threshold of decline

1. There were an estimated 8.8 million new TB cases in 2005, 7.4 million in Asia and sub-Saharan Africa. A total of 1.6 million people died of TB, including 195 000 patients infected with HIV.
2. TB prevalence and death rates have probably been falling globally for several years. In 2005, the TB incidence rate was stable or in decline in all six WHO regions, and had reached a peak worldwide. However, the total number of new TB cases was still rising slowly, because the case-load continued to grow in the African, Eastern Mediterranean and South-East Asia regions.

DOTS and the Stop TB Strategy

Most government health services now recognize that TB control must go beyond DOTS, but the broader Stop TB Strategy is not yet fully operational in most countries

3. More than 90 million TB patients were reported to WHO between 1980 and 2005; 26.5 million patients were notified by DOTS programmes between 1995 and 2005, and 10.8 million new smear-positive cases were registered for treatment by DOTS programmes between 1994 and 2004.
4. DOTS, which underpins the Stop TB Strategy, was being applied in 187 countries in 2005; 89% of the world's population lived in areas where DOTS had been implemented by public health services.
5. A total of 199 countries/areas reported 5 million episodes of TB in 2005 (new patients and relapses); 2.3 million new pulmonary smear-positive patients were reported by DOTS programmes in 2005, and 2.1 million were registered for treatment in 2004.
6. Skilled and highly-motivated staff are central to any public health programme, and yet the plans for human resource development made by national TB control programmes (NTPs) in 2005–2006 were highly variable in quality. In particular, 7 of the 22 high-burden countries (HBCs), including 5 African countries, had plans that were limited in scope or under development.
7. Prompt diagnosis and effective treatment require fully-functioning laboratories and reliable drug supplies. Despite some improvements, NTPs in all WHO regions reported drug stock-outs, too few laboratories, weak quality control, and limited facilities to carry out culture and drug susceptibility testing. Many NTPs asked for further technical assistance from external agencies.
8. Nearly 5 million TB patients were notified under DOTS in 2005, and the total number diagnosed and treated in 2006 is expected to be roughly in line with the Global Plan to Stop TB (2006–2015). However, smear-positive case detection rates by DOTS programmes varied among WHO regions in 2005, from 35% (Europe) to 76% (Western Pacific), and these variations are likely to persist into 2006.
9. The numbers of HIV-positive and multidrug-resistant TB (MDR-TB) patients diagnosed and treated in 2005, although increasing, were far lower than proposed in the Global Plan for 2006. HIV testing for TB patients is increasing quickly in the African Region, but little effort has yet been made to screen HIV-infected people for TB, though this is a relatively efficient method of case-finding. Facilities to diagnose and treat MDR-TB, including extensively drug-resistant TB (XDR-TB), are not yet widely available; the scale of the XDR-TB problem globally is not yet known.
10. The treatment success rate for MDR-TB patients in projects approved by the Green Light Committee (GLC) was close to 60%, and higher than in non-GLC projects.
11. The Stop TB Strategy is a mechanism for building links between NTPs, health-care providers and communities. The connections being made through community-based TB care, public–private mix DOTS and the Practical Approach to Lung Health have been shown, on a small to medium scale, to improve access to diagnosis and treatment. However, no country has yet succeeded in making all of these activities fully operational at national scale.
12. Few NTPs have an overview of TB research in their countries, and few have the skilled staff and funding needed to carry out essential operational research.

Financing TB control

Although the funds available for TB control have increased enormously since 2002, reaching US$ 2.0 billion in 2007, interventions on the scale required by the Global Plan to Stop TB would cost an extra US$ 1.1 billion in 2007

13. The financial analyses included in this report are based on data from 90 countries that together accounted for 90% of all new TB cases in 2005, including all 22 HBCs and 84 of the countries considered in the Global Plan.
14. For all 90 countries analysed, the NTP budgets reported for 2007 amount to US$ 1.6 billion, with total costs (NTP budgets plus the cost of general health system staff and infrastructure used for anti-TB treatment) of

US$ 2.3 billion, and US$ 2.0 billion available (i.e. a reported funding gap of US$ 0.3 billion).

15. If country plans were in line with the Global Plan, the funding gap would be much larger than reported in 2007. To implement the Global Plan in 84 countries would cost US$ 3.1 billion in 2007, or US$ 1.1 billion more than was available. The difference between the Global Plan and funds available in the 22 HBCs is US$ 0.8 billion.

16. The Global Plan is more costly than country budgets primarily because it anticipates greater activity on TB/HIV management and on advocacy, communication and social mobilization (ACSM), especially in the African and South-East Asia regions. While some of the costs of collaborative TB/HIV activities are covered by HIV/AIDS control programmes (e.g. for antiretroviral therapy), NTPs are proposing to do less than described in the Global Plan. The Global Plan includes a large budget for ACSM but, in the absence of systematic guidance in 2006 (to be published in 2007), NTP budgets were typically small and activities uneven.

17. Budgetary trends over the period 2002–2007 can be assessed for the 22 HBCs. NTP budgets grew from just over US$ 500 million in 2002 to US$ 1.25 billion in 2007. Total costs increased from US$ 644 million in 2002 to US$ 1.65 billion in 2007. Funding has increased from US$ 644 million in 2002 to US$ 1.4 billion in 2007 (US$ 241 million from donors, including US$ 168 million from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and US$ 1.2 billion from national governments).

18. In 2007, six countries accounted for three-quarters of the NTP budgets reported by HBCs: Brazil, the Russian Federation, China, South Africa, India and Indonesia.

19. Between 2002 and 2007, there were big increases in domestic funding in China, the Russian Federation and South Africa; in other countries, most of the increased funding came from the GFATM.

20. In 2005, 11 HBCs (of 19 that provided data) spent 90% or more of the funds available, including Brazil, China, India, Myanmar and Viet Nam. Afghanistan and Pakistan spent less than half of the available funds. Kenya, Mozambique and UR Tanzania spent at least two-thirds of their funds in 2005, as compared with less than half in 2004.

21. Greater expenditure was strongly associated with improved case-finding in Bangladesh, China, DR Congo, India, Indonesia, Kenya, Myanmar and Nigeria. But there was no systematic relationship between incremental expenditure and improved case detection across all HBCs. The relationship between spending and case-finding needs to be investigated and understood country by country.

22. Most NTPs in HBCs have medium-term (e.g. five-year) strategic plans for TB control. These are in line with the Global Plan in a few countries, including Brazil, China (with the exception of MDR-TB treatment), Kenya, the Philippines and Viet Nam. Other countries need budgets that are more closely aligned with the Global Plan.

Towards goals and targets

More than 26 million TB patients have been treated under DOTS, but the world's TB control programmes narrowly missed the 2005 targets for case detection and cure, and are not yet on course to meet the Millennium Development Goals by 2015

23. WHO's 2005 targets for DOTS programmes of 70% case detection and 85% cure were narrowly missed globally: case detection was 60% (95%CL 52–69%); treatment success was 84%. However, both targets were achieved in the Western Pacific Region, and treatment success exceeded 85% in the South-East Asia Region.

24. Twenty-six countries achieved both targets, including China, the Philippines and Viet Nam; 67 countries achieved at least 70% case detection in 2005, and 57 countries reported a treatment success of 85% or more in the 2004 cohort.

25. If the global TB incidence rate is indeed falling, Millennium Development Goal 6 (Target 8) has already been satisfied, more than 10 years before the 2015 deadline.

26. Although the TB burden may be falling globally, the decline is not fast enough to meet the impact targets set by the Stop TB Partnership – to halve the 1990 prevalence and death rates by 2015. The Region of the Americas and the South-East Asia and Western Pacific regions are on track to reach these targets; the African, Eastern Mediterranean and European regions are not. Countries and regions are more likely to reach these targets if they can increase budgets and step up activities in line with the Global Plan.

27. Procedures for collecting financial and epidemiological data, and other information about programme performance, must be systematically improved. Comprehensive surveillance and monitoring, and well-designed surveys, are a prerequisite for the accurate evaluation of progress in TB control.