



TB Control Worldwide : Situation and Problems

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The World Health Organization (WHO) collects tuberculosis (TB) data yearly from all countries and territories. This information includes the number and type of cases formally notified to the national level by the sub-national levels as well as the treatment results. Through these and other relevant data, including those from infection and disease prevalence surveys, WHO elaborates estimates of the global burden of TB and of the control situation. WHO promotes the 5-element strategy known as DOTS as the most cost-effective approach to TB control today.

DOTS includes:

1. Political commitment with long-term planning, adequate human resources and sustainable financing to reach World Health Assembly (WHA) and Millennium Development Goals (MDG) targets;
2. Diagnosis through bacteriology;
3. Standardized treatment under proper case management conditions, including Directly Observed Therapy (DOT), and full patient support for all;
4. An effective drug supply system; and
5. An adequate recording and reporting of cases and outcomes.

The targets for TB control have been established by the WHA as detection of at least 70% of all infectious cases and treatment success of at least 85% among those detected by 2005. More recently, targets have also been proposed within the MDG: by 2015, to have halted and begun to reverse incidence; between 1990 and 2015, to halve TB prevalence and deaths rate.

The latest data available to WHO and published in March 2005 refer to cases notified in 2003 and results of treatment among those detected in 2002. Virtually all countries of the world (199 out of 211 countries and territories) have reported information.

Using a variety of sources, WHO estimates that there were 8.8 million new TB cases in 2003 (140 per 100,000), of which 3.9 million highly infectious sputum smear-positive. Among these 8.8 million cases, 674,000 were in HIV positive individuals. Prevalence has been estimated to be 245 per 100,000, that is 15.4 million cases worldwide, while 1.7 million people died of TB in 2003.

DOTS was implemented in 182 countries in 2003, and 77% of the global population was living in areas where DOTS is potentially accessible. Cumulatively, over 17 million patients have been treated in DOTS programmes since 1995.

In 2003, 1.8 million sputum smear-positive cases were notified by DOTS programmes, representing 45% of the estimated incidence. The increment in sputum smear-positive cases notified by DOTS programmes between 2002 and 2003 (324,000) represents the largest annual increment ever. If such rate could be maintained in the following two years, then DOTS programmes are projected to detect 60% of estimated cases by the target year 2005. This is 10% less than the WHA target of 70% case detection under DOTS. Despite the major acceleration in DOTS case detection rate over the past 3 years, still a large number of estimated cases are either un-detected or detected and treated in programmes not delivering the DOTS strategy. This is a major challenge for TB control today. In addition, the recent acceleration in case detection under DOTS is largely the result of successful programmes, such as those of India and China, responsible for 2/3 of the incremental cases in 2003. Other programmes, especially in Africa, are not showing any major progress in case detection.

Of the cases treated in 2002 under DOTS, 82% were treated successfully. This result, which is consistent with that of previous years starting in 2000, is slightly below the global target of 85% set by the WHA for 2005. Cure rates will not increase to the target of 85% unless effectiveness of programmes in Africa and Eastern Europe is substantially increased, since these two regions consistently report less than average cure rates. HIV and MDR-TB, respectively, are likely causes for the low success rates in these two regions.

Estimates of incidence show that, globally, rates are decreasing in all regions except Africa, likely consequence of the high HIV prevalence rates. This results in a global incidence rate that is still growing at 1% per year. Without addressing the TB/HIV epidemic, global incidence may not start to decline in the near future. On the other hand, as a result of DOTS, prevalence has fallen from 309 to 245 per 100,000 between 1990 and 2003, and global mortality, which peaked in the 1990s, is decreasing after its peak at 2.5% per year. Without the HIV epidemic in Africa, both prevalence and mortality would be falling much more quickly worldwide.

Financial assessments made by WHO reveal that, for 2005, there were major increases in both budgets and funding available compared to 2002. Current total budgets reported by NTPs total 741 million US\$, with a total estimated cost projected to be 1.3 billion, of which 1.2 appear to be available. Overall, 62% of National Tuberculosis Programmes (NTP) budgets are provided by country governments, while GFATM and other grants provide 14% and 7% respectively, thus leaving a gap of 17% of the reported budgets. This gap is likely an underestimate, as planned activities are insufficient to reach the targets in some countries and TB/HIV and MDR-TB additional interventions are generally underbudgeted.

The response to this burden has been well coordinated in the recent past, thanks largely to the establishment of an effective global Stop TB Partnership. In terms of DOTS expansion, there are 5 overriding challenges: (i) human resource crisis; (ii) weak political commitment; (iii) weak lab services; (iv) multi-drug resistance tuberculosis (MDR-TB) and (v) TB/HIV. Clear policies addressing all these challenges are necessary in all countries, and delays in adopting proper approaches are evident in many. In addition, a crucial need is the engagement of non-governmental organizations (NGOs) and community groups in the activities related to TB control, from increasing demand to contributing to care. Even more important is the involvement of all care providers, public and private, in the delivery of the same high standards of TB care provided in DOTS programmes.