

9. ESTABLISHED MARKET ECONOMIES (EME) AND CENTRAL EUROPE

The Established Market Economies (EME) and Central Europe are combined together here as one epidemiological region because they have similarly high per capita incomes and low TB incidence rates. Since the main focus of this Global Plan is on the countries with high TB incidence, and the combined estimated incident cases in the EME and Central Europe represented only 1.7% of the global total in 2003, this regional profile does not include a detailed set of projections. Many of the countries in the EME and Central Europe have developed national plans for TB control. The strategic approach relevant in these countries includes a focus on settings (e.g. metropolitan areas) and risk groups (e.g. immigrants) with a TB incidence above the national average. Such plans include the national plan for the USA, developed by the Federal TB Task Force in 2004 (based on the recommendations made by the Institute of Medicine in its report in 2000²⁸) and the national plan for England, published in 2004.²⁹

The effective application of chemotherapy in the latter half of the twentieth century further accelerated the already declining TB case notifications in industrialized countries. From the mid-1980s onwards, however, several countries saw a slow-down in the decline, while others saw the trend reversed, with case notifications increasing for the first time in many years. For example, in the United States of America, after 30 years of steady decline, TB incidence increased regularly between 1985 and 1992.³⁰ Factors responsible for this reversal included increased poverty among marginalized groups in inner city areas, immigration from countries with high TB prevalence, the impact of HIV, and most importantly the failure to maintain the necessary public health infrastructure (as in the case of New York City), under the mistaken belief that tuberculosis was a problem of the past.³¹ The consequences of this failure to maintain the necessary public health infrastructure serve as a sharp reminder to countries of the importance of maintaining commitment to TB control. The commitment to ensuring universal access to quality TB diagnosis and treatment implies particular efforts to reach those groups at increased risk of TB, including the poor, the homeless and immigrants (whether legal or illegal).

Many countries in Europe, including Denmark, the Netherlands, Sweden and the United Kingdom, reported a slow-down in the decline, or even a steady rise, in TB cases.³² The high proportion of cases in the foreign-born (e.g. 24% in France, 51% in the Netherlands, 54% in Sweden, 68% in Switzerland) pointed to immigration as the main cause of this change in trend.³³ Annual case rates in foreign-born populations often exceed 50 per 100 000 and may even exceed 100 per 100 000 (e.g. in the Netherlands), in contrast to rates in native-born populations of usually less than 15 per 100 000. In many countries, tuberculosis has declined steadily among the native-born, while rising among the foreign-born.

See Figure 31. The number of TB cases in sixteen European countries among native-born and foreign-born.

TABLE 18: FURTHER ACTIONS NEEDED TO ACHIEVE THE 2015 TARGET FOR DEATHS IN AFRICA AND EASTERN EUROPE

Action (under additional scenarios)	Assessment of feasibility
AFRICA	
ART much more rapidly available, e.g. as proposed by WHO/UNAIDS, in line with the «3 by 5» initiative.	Since the «3 by 5» initiative will probably not achieve its target by 2005, it appears unlikely that ART access for TB patients can be made much more rapidly available.
Very high rates of case detection and treatment success from 2006-2015 under DOTS, with 90% case detection for HIV-negative TB cases (both smear-positive and smear-negative) and 85% treatment success.	Very unlikely – the infrastructure and human resources in Africa are inadequate to allow these levels of case detection and treatment success, although the situation could be different if improved diagnostics and treatment regimens became widely available (towards 2010), and if investments now resulted in improvements in infrastructure and human resources (from 2010 onwards).
Preventive therapy: 20% of people coinfecting with MTB and HIV treated annually so that they do not develop active TB. This could be achieved with isoniazid (IPT), ART, or some combination of IPT and ART (or with some other drug yet to be discovered).	Very unlikely – the infrastructure and human resources in Africa are inadequate to deliver these levels of preventive therapy, although the situation could be different if improved diagnostics for latent TB infection and preventive therapy became widely available (towards 2010).
HIV incidence rate cut to half the value forecast by UNAIDS in 2005, and held at that level from 2006 to 2015.	Extremely unlikely – the infrastructure and human resources in Africa are inadequate to deliver the measures available to control HIV transmission quickly enough and on a sufficiently large scale to result in this unprecedented rate of decline in HIV incidence.
Vaccination from 2006 onwards, annually protecting 20% of uninfected people from ever acquiring TB infection (with the assumption that the vaccine does not protect people who are already HIV-positive).	Extremely unlikely – the Working Group on Vaccines estimates that new vaccines will be available in 2015.
EASTERN EUROPE	
Extreme DOTS (90% case detection with 85% treatment success in 2006–2015).	Very unlikely that these levels could be reached so quickly, even though experience of rapid, large-scale DOTS implementation in China and India indicates that strong political support in large countries with reasonable health infrastructure, adequate funding and strong financial management can result in high levels of case detection and treatment success. Improved drugs and diagnostics could help reach these levels.
More rapid expansion of DOTS-Plus: 90% case detection for MDR-TB patients, as for DOTS; MDR-TB among culture-positive cases falls from 10% to 5% by 2010; the ratio of previously treated cases to new cases falls to 10% by 2010; 70% of MDR-TB patients are on DOTS-Plus from 2006 onwards, rising to 100% by 2015; 85% treatment success among MDR-TB patients under DOTS-Plus from 2006 to 2015; 100% DST for culture-positive patients 2006–15.	Very unlikely, largely because of the lack of political will, financial management capacity and laboratory infrastructure, and the lack of experience of large-scale and rapid scale-up of DOTS-Plus.

The foreign-born now account for a large proportion of tuberculosis cases in the Established Market Economies, as shown for example by many countries in Europe.³⁴

See Figure 32. *Contribution of the foreign-born to tuberculosis in countries in Europe in 2002.*

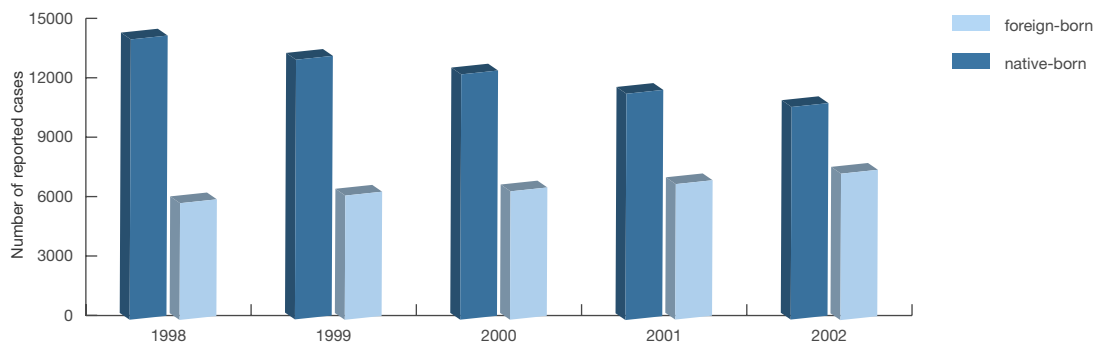
The impact of HIV on TB in Western Europe has been largely limited to certain countries (e.g. Portugal, Spain) and cities (e.g. Amsterdam, Paris).³⁵ In most countries in Western Europe, the proportion of AIDS cases diagnosed with TB is low. The two notable exceptions are Portugal and Spain,³⁶ where the overlap between the population infected with HIV and the population infected with *M. tuberculosis* is greater than in the other countries of western Europe. TB incidence rates in Japan are still high at about 40 per 100 000, but are declining.³⁷ In other industrialized countries, including Australia, Canada and New Zealand, rates have levelled off over the past few years below 10 per 100 000. The proportion of foreign-born among TB patients is about 70% in Australia and Canada.

Investment in TB control in the countries in the EME and Central Europe involves investment in both domestic and international TB control. One implication of the high proportion of cases in the foreign-born in most industrialized countries is that TB control in these settings depends on TB control globally. Industrialized

countries need to invest in tuberculosis control in countries with high TB incidence, not only to contribute to alleviating human suffering and poverty, but also to reduce the tuberculosis risk, including risk of multidrug-resistance,³⁸ that the foreign-born bring with them when they migrate from the countries with high tuberculosis incidence. This investment in TB control in high-incidence countries may bring economic benefits by reducing TB among migrants and therefore also the costs of TB-related morbidity and mortality. For example, an economic analysis showed that a US\$35 million investment in TB control in Mexico by the USA would result in net discounted savings of US\$108 million in the USA over a 20-year period, through decreased costs associated with TB among Mexican migrants to the USA.³⁹

FIGURE 31: THE NUMBER OF TB CASES IN SIXTEEN EUROPEAN COUNTRIES AMONG NATIVE-BORN AND FOREIGN-BORN.

TB decline in West Europeans, but steady in immigrants



Sixteen countries: Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Hungary, Ireland, Netherlands, Slovakia, Slovenia, Sweden, UK, Iceland, Norway, Switzerland

FIGURE 32: CONTRIBUTION OF THE FOREIGN-BORN TO TUBERCULOSIS IN COUNTRIES IN EUROPE IN 2002.

Foreign-born make a large and growing contribution to TB in Europe

