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## Epidemiology of tuberculosis in Europe

### The issue

Tuberculosis (TB) is an infectious disease of particular concern for public health in the WHO European Region. The 18 priority countries for TB control in the Region are: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan in the eastern part of the Region, and Bulgaria, Romania and Turkey in central Europe. Poor economies and public health approaches are the main causes of the resurgence of TB in these countries.<sup>1</sup> In western Europe, spots of social marginalization and immigration<sup>2</sup> from high TB-burden countries have resulted in increasing incidence of TB, especially in the major cities such as London, Paris, Barcelona and Milan.<sup>3</sup> TB is curable in drug-susceptible cases, as well as in most cases that are drug-resistant. However, the services providing care and treatment should be organized on the basis of international standards, as outlined in the Stop TB Strategy.

Despite the progress achieved in recent years, the level of TB control in Europe is still inadequate. In 2005, only 46% of the population of the 18 high-priority countries for TB were living in areas served by DOTS, the TB control strategy launched by WHO in 1995 that is now the cornerstone of the Stop TB Strategy. Only 35% of infectious TB cases in these countries are detected by the simple and inexpensive method of sputum microscopy; this is the lowest rate of any region in the world. The average rate of treatment success is 74%, the same as that reported from the African Region with its high prevalence of HIV infection.

### The facts

- Every year in Europe, 445 000 people – 50 every hour – become sick with TB and 66 000 people – 8 every hour – die of TB. Of these, 75% are in eastern Europe. Of the cases registered for treatment and reported to WHO in 2005, the ratio of men to women was 2:1.<sup>4</sup>
- The European Region has a huge variation in TB incidence rates, ranging from 5 (in Norway) to 198 (in Tajikistan) new TB cases per 100 000 population per year. The Russian Federation is twelfth on the list of the 22 highest TB-burden countries in the world.
- In 2005, there were, on average, 13 new TB cases per 100 000 population in the 15 countries that were members of the European Union (EU) before May 2004, 25 per 100 000 population in the 10 countries that joined the EU in May 2004, 51 per 100 000 population in the 4 countries that were then candidates for EU membership (including Bulgaria and Romania) and 103 per 100 000 population in the countries bordering the EU.

<sup>1</sup> See fact sheet on *Tuberculosis and health systems*.

<sup>2</sup> See fact sheet on *Tuberculosis and migration*.

<sup>3</sup> See fact sheet on *Tuberculosis in large cities*.

<sup>4</sup> See fact sheet on *Tuberculosis and gender*.

- It is estimated that there are nearly 70 000 cases of multidrug-resistant TB (MDR-TB) in Europe, of which 95% are in eastern Europe. They represent an average of 15% of all TB cases in the subregion, with peaks in some countries that are the highest rates in the world. Of the cases of MDR-TB, a significant proportion have extensively drug resistant TB (XDR-TB), which is almost untreatable.
- In 2005, it was estimated that 5% of all TB cases were attributable to HIV, making a total of almost 14 000 cases of TB/HIV coinfection. However, this estimate is based on incomplete information. The number of cases of TB owing to HIV infection is expected to increase soon in the Region as the result of the HIV epidemic in eastern Europe.<sup>5</sup>

### The policy considerations

The Global Plan to Stop TB, 2006–2015 indicates that sub-Saharan Africa and eastern Europe are the only two epidemiological subregions in the world where it will be very difficult to achieve the TB targets under Millennium Development Goal 6.<sup>6</sup> It does, however, also outline main directions for effectively increasing access to quality diagnosis and treatment of TB.

The expansion of high quality TB diagnostic and treatment services in eastern Europe is limited by the lack of political will, weak public health infrastructure, insufficient integration of TB control programmes into general health services, inadequate engagement of the full range of care providers, poorly developed human resource capacity and lack of involvement of people with TB and communities.<sup>7</sup> It is urgent that the Stop TB Strategy should be fully implemented on a broad scale.

Drug resistance is the main cause of the low success rates in TB treatment, and the main constraint on achieving the TB control targets by 2015.<sup>8</sup> Strengthening laboratory diagnosis and treatment for a much larger number of MDR-TB patients is a first priority.

In eastern Europe, prisons are important breeding grounds for TB, and especially MDR-TB.<sup>9</sup> TB diagnostic and treatment services of the same standard as those available to the general community should be established as part of the penal system reform and through close collaboration between the justice, internal affairs and health ministries.

HIV has spread rapidly in eastern Europe, particularly among intravenous drug users. There needs to be effective coordination between TB and HIV/AIDS control programmes, and collaborative interventions must be implemented to ensure a continuum of care for patients.

The Stop TB Strategy and the Global Plan to Stop TB, 2006–2015 were launched in January 2006 and should be translated into a medium-term strategic plan, with the specific needs and resources of Europe spelled out and agreed on by all partners, along with specific targets and milestones.

Full implementation of the Stop TB Strategy requires action across different sectors and across society, with the support of a wide range of national and international partners. The European Regional Partnership to Stop TB needs to be strengthened.

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<sup>5</sup> See fact sheet on *Tuberculosis and HIV infection*.

<sup>6</sup> See fact sheet on *Background information about tuberculosis*.

<sup>7</sup> See fact sheet on *Tuberculosis and health systems*.

<sup>8</sup> See fact sheet on *Multidrug-resistant and extensively drug-resistant tuberculosis*.

<sup>9</sup> See fact sheet on *Tuberculosis and prisons*.