Epidemiological trends of TB in Eastern Europe – TB and migration

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Tuberculosis in Germany
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(Ref.: From a talk by Robert Koch, Sitzung der Akademie der Wissenschaften zu Berlin am 7. April 1910)

Ref.: Robert Koch Institute
TB burden in the WHO European Region, 2009

420,000 new cases and 46,000 deaths
49 new cases and 7 deaths every hour

• 420,000 estimated, 330,000 notified* (5.6% of the global burden in 2009)
• 46,000 deaths due to TB
• Majority of TB patients (87%) and deaths (92%) were from the 18 high priority countries (HPC) of the Region.
• Highest case detection rate (78%) and lowest treatment success rate (70%) among all the Regions
• TB risk factors in Europe
  – HIV: 6 – 15%
  – Smoking: 21 – 29%
  – Diabetes: 14 – 15%
  – Alcohol: 14 – 35%

Global TB control report, 2010
Even with the fastest decline in TB incidence in the world, nearly 1000 Europeans fall ill every day

- New TB cases estimated to occur per year: 340,000.
- Estimated total number of TB patients in the Region: over 440,000.
- Since 2005, new TB cases have been falling at an average rate of 5.2% per year.

Source: WHO European Office, Copenhagen

WHO European Region has fastest decline of TB incidence in the world

TB notification trend reflects true reduction in spread of the disease and is strongly influenced by improvements in high-priority countries.


Source: WHO European Office, Copenhagen
Less wealthy countries are the most affected

TB incidence rate, GDP per capita and estimated new and relapses caseload in 53 MSs of WHO European Region, 2014

More TB

More wealth

Source: WHO European Office, Copenhagen

TB burden is unequally distributed

83% of incident TB cases
92% of TB deaths
99.5% of MDR-TB cases
88% of TB/HIV coinfections occur in the 18 high-priority countries in the Region

The transmission of MDR-TB is continuing

MDR-TB detection and treatment have much improved since the start of the MDR-TB Action Plan 2011-2015

Source: WHO European Office, Copenhagen
Under-detection of TB among children remains a challenge in the WHO European Region

- 9% of all new TB cases in 2014 were children
- Whereas most cases among adults are detected, the contrary happens for children

Source: WHO European Office, Copenhagen
HIV co-infection among TB patients continues to rise in the WHO European Region

HIV and TB create a deadly synergy

Between 2006 and 2014 HIV-TB co-infection increased from 2.8% to 8.0% with annual average increase of 13%


Effectiveness of TB treatment remains one of the biggest challenges for the WHO European Region

Only 3 in 4 newly registered TB patients notified in the region is successfully treated

Source: WHO European Office, Copenhagen
Effectiveness of TB treatment remains one of the biggest challenges for the WHO European Region.

Treatment success rate of all new and relapse, WHO Regions, 1990 and 2013.

TB treatment is even more challenging among previously treated, HIV co-infected and M/XDR-TB patients.

Comparison of treatment outcome of TB patients by history, HIV status and drug resistance, WHO European Region.

Only 1 in 2 patients with MDR-TB or HIV co-infection has the chance of being cured.

For patients with XDR TB the chance of cure is below 30%.

Source: WHO European Office, Copenhagen.
Vision: An end to the TB epidemic

Goal: To stop the spread of drug-susceptible and drug-resistant TB by achieving universal access to prevention, diagnosis and treatment in all Member States of the WHO European Region.

Targets:
- 35% reduction in TB deaths
- 25% reduction in TB incidence rate
- 75% treatment success rate among the MDR-TB patient cohort

To reach targets we need to:
- Scale-up rapid diagnosis
- Expand patient-centred care
- Introduce shorter and more effective treatment regimens including new medicines
- Expand preventive therapy and research for new tools
- Boost intersectoral approach to address inequities

Source: WHO European Office, Copenhagen

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TB control challenges in the WHO European Region

- **Economic recession, poverty** and **socially vulnerable groups** (homeless, unemployed, alcohol-dependent)
- **Health systems**: poorly developed or under reform, leading to ineffective TB control
- **M/XDR-TB**: the highest rates in the world in EUR
- **HIV epidemic**: growing (mainly through injecting drugs users)
- **TB in prisons**: penitentiary system very large with poor TB services
- **Migration** (East to West, South to North, internal migration)
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