

New study puts a price on drug-resistant TB cases in EU

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A new study has calculated the average cost per case of TB in the EU. The findings suggest the economic burden of TB far outweighs the costs of investing in more effective vaccines.

The research, published online today (16 August 2013), in the *European Respiratory Journal*, is the first study to estimate the costs of the disease in recent years.

Researchers used a systematic review of literature and institutional websites for the 27 EU member states to summarise [economic data](#) on the treatment cost of TB cases in 2011.

The researchers separated the countries into two groups based on their gross domestic product (GDP) per person. The findings revealed the costs as follows:

For the old EU-15 countries, plus Cyprus, Malta and Slovenia, on average the costs per case were:

- €10,282 for drug-susceptible TB
- €57,213 for multidrug-resistant (MDR) TB
- €170,744 for extensively drug resistant (XDR) TB

For the remaining new EU states, the costs amounted to:

- €3,427 for drug-susceptible TB

- €24,166 for MDR-TB/XDR-TB

The authors calculated that of the total treatment cost of drug-susceptible, MDR-TB and XDR-TB cases in 2011 was €536,890,315.

The researchers also calculated the disability-adjusted life years (DALYs) caused by TB. DALYs are a measure of disease burden, looking at the number of years lost due to ill-health, disability or early death. The total number of years lost amounted to 103,104 in 2011. When stated in monetary terms, this amounted to €5,361,408,000.

The findings come ahead of the launch of the European Lung White Book, a comprehensive publication that will provide burden and cost data for a range of respiratory diseases and risk factors. The launch will take place at this year's European Respiratory Society's Annual Congress in Barcelona next month (7 September 2013).

Lead author, Roland Diel, professor for Health Economics at the University Hospital Schleswig–Holstein in Kiel, Germany, , said: "This is the first time that a comprehensive cost-per-case has been estimated for TB. Without better vaccines, it is unlikely that TB will ever be eliminated. An investment of about 560 million is considered necessary to develop a new, effective vaccine in the EU.

"The findings of our study suggest that this investment is essential as the costs of the current [economic burden](#) far outweigh the cost of investing in new treatments."

Francesco Blasi, President of the European Respiratory Society, said: "The figures in this study have shown that the burden of TB on both the economy and on society in Europe is huge, particularly with the increasing problem of drug-resistant strains. The widely used BCG vaccine was introduced in 1921; it is out of date and has unpredictable

success in preventing TB. It is time to invest more of our resources in preventing this debilitating condition.

"It is critical that healthcare professionals and policymakers take note of this new data to understand the impact and burden of diseases. That is why we have produced the White Book, which includes the latest data on over 20 different [respiratory diseases](#) in Europe."

More information: Costs of tuberculosis disease in the EU: a systematic analysis and cost calculation, Diel R, Vandeputte J, de Vries, G, Stillo J, Wanlin, M, Nienhaus, A, [DOI: 10.1183/09031936.00079413](https://doi.org/10.1183/09031936.00079413)

Provided by European Lung Foundation

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