#### MORTALITY FROM RESPIRATORY DISEASES

Mortality from respiratory diseases is the third main cause of death in EU countries, accounting for 8% of all deaths in 2015. More than 440 000 people died from respiratory diseases in 2015, an increase of 15% over the previous year. Most of these deaths (90%) were among people aged 65 and over. The main causes of death from respiratory diseases are chronic obstructive pulmonary disease, pneumonia, asthma and influenza.

In 2015, the United Kingdom and Ireland had the highest age-standardised death rates from respiratory diseases among EU countries (Figure 3.15). Finland, Latvia, Estonia and Lithuania had the lowest rates, with rates only about half the EU average.

Death rates from respiratory diseases are on average 85% higher among men than among women in all EU countries. This is partly due to higher smoking rates among men. Smoking is an important risk factor for chronic obstructive pulmonary disease and other respiratory diseases.

Chronic obstructive pulmonary disease (COPD) (or chronic lower respiratory diseases), which includes chronic bronchitis and emphysema, caused over 180 000 deaths in EU countries in 2015 and accounted for over 40% of all respiratory disease mortality. Mortality from COPD varies widely across countries. Hungary, Denmark and the United Kingdom have the highest rate of mortality from COPD, with agestandardised rates at least two-thirds higher than the EU average (Figure 3.16). The main risk factor for COPD is tobacco smoking (both active and passive smoking), but other risk factors include occupational exposure to dusts, fumes and chemicals, and air pollution more generally. A large number of people with COPD are only diagnosed at a late stage, contributing to higher mortality. People with COPD are also more susceptible to influenza and pneumonia.

Pneumonia was responsible for nearly 140 000 deaths in EU countries in 2015, accounting for over 30% of all respiratory disease mortality. As with COPD, there are large variations in mortality rates across EU countries: Portugal, the Slovak Republic and the United Kingdom have the highest rates of pneumonia mortality, whereas Finland, Greece and Austria have the lowest rates (Figure 3.17). The main risk factors for pneumonia are age, smoking and alcohol abuse, and having COPD or HIV infection (Torres et al., 2013).

More than 7 000 people died from asthma in EU countries in 2015. Mortality rates from asthma are highest in Estonia, Ireland and the United Kingdom, but remain much lower than for COPD and pneumonia.

Nearly 6 000 deaths were directly attributed to influenza, with most of these deaths concentrated among people aged over 65. But influenza also contributed to many more deaths among frail elderly people with chronic diseases. The European Monitoring of Excess Mortality network estimated that up to 217 000 deaths were related to influenza among elderly people across EU countries during the winter 2015 (EuroMoMo, 2016).

The prevalence and mortality from respiratory diseases are likely to increase in the coming years as the population ages and presently unreported cases of COPD begin to manifest, whether alone or in co-morbidity with other chronic diseases.

Many deaths from respiratory diseases could be prevented by tackling some of the main risk factors, notably smoking, and by increasing vaccination coverage for influenza and pneumonia, particularly among elderly people and other vulnerable groups. Better management of both asthma and COPD in primary care could also help reduce health complications.

### **Definition and comparability**

Mortality rates are based on the number of deaths registered in a country in a year divided by the population. The rates have been agestandardised to the revised European standard population adopted by Eurostat in 2012 to remove variations arising from differences in age structures across countries and over time.

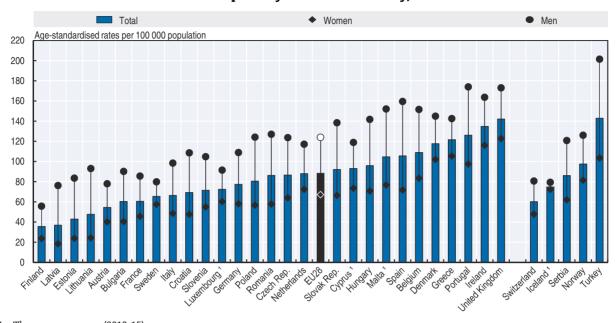
Deaths from respiratory diseases relate to ICD-10 codes J00-J99, with pneumonia relating to J12-J18, chronic obstructive pulmonary disease (or chronic lower respiratory diseases) relating to J40-J47 and asthma to J45-J46. The international comparability of data on mortality from respiratory diseases can be affected by differences in medical training and coding practices for causes of death. Finland revised some coding practices in 2005-06, leading especially to a decrease of recorded deaths caused by pneumonia.

#### References

Torres, A. et al. (2013), "Risk Factors for Community-acquired Pneumonia in Adults in Europe: A Literature Review", Thorax, Vol. 68, pp. 1057-1065.

EuroMoMo (2016), "Excess mortality in Europe in the winter season 2014/15, in particular amongst the elderly", Winter season summary 2015.

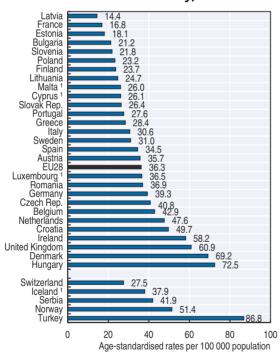
## 3.15. Respiratory diseases mortality, 2015



1. Three-year average (2013-15). Source: Eurostat Database.

StatLink http://dx.doi.org/10.1787/888933834547

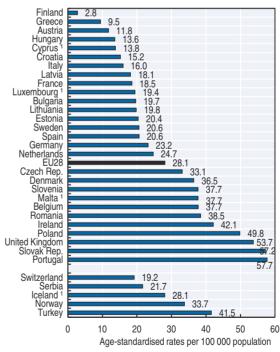
## 3.16. COPD mortality, 2015



1. Three-year average (2013-15). Source: Eurostat Database.

StatLink http://dx.doi.org/10.1787/888933834566

## 3.17. Pneumonia mortality, 2015



1. Three-year average (2013-15). Source: Eurostat Database.

StatLink http://dx.doi.org/10.1787/888933834585



#### From:

# Health at a Glance: Europe 2018 State of Health in the EU Cycle

# Access the complete publication at:

https://doi.org/10.1787/health\_glance\_eur-2018-en

# Please cite this chapter as:

OECD/European Union (2018), "Mortality from respiratory diseases", in *Health at a Glance: Europe 2018:* State of Health in the EU Cycle, OECD Publishing, Paris/European Union, Brussels.

DOI: https://doi.org/10.1787/health\_glance\_eur-2018-12-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

