Circulatory (or cardiovascular) diseases remain the main cause of mortality in nearly all EU member states, accounting for some 1.7 million deaths and 37% of all deaths across EU countries in 2017. The morbidity and mortality related to circulatory diseases has major economic costs as well as human costs for Europe. The cost of circulatory diseases to the EU economy was estimated at EUR 210 billion in 2015, of which slightly more than half was due to direct health care costs, a quarter to productivity losses and a fifth to the informal care of people with cardiovascular diseases (Wilkins et al., 2017). This estimate does not take into account the welfare losses associated with premature mortality related to these diseases.

The two main causes of death from circulatory diseases are ischaemic heart diseases (notably heart attacks) and cerebrovascular diseases (strokes). These two causes of death alone account for over half of all deaths from circulatory diseases, and more than one-fifth of all deaths in EU member states in 2017.

Ischaemic heart diseases (IHD) are caused by the accumulation of fatty deposits lining the inner wall of a coronary artery, restricting blood flow to the heart. Some 550 000 deaths were attributed to IHD across EU countries in 2017, accounting for 12% of all deaths. Death rates for IHD are over 80% higher for men than for women across EU countries, because of a greater prevalence of risk factors among men, such as smoking, hypertension and high cholesterol.

Mortality rates from IHD are highest in Lithuania, Hungary, the Slovak Republic and Latvia, with age-standardised rates three to four times greater than the EU average. The countries with the lowest IHD mortality rates are France, the Netherlands, Portugal and Spain, with death rates about half the EU average (Figure 3.9).

Cerebrovascular diseases (or strokes) were responsible for some 375 000 deaths across the EU in 2017, accounting for about 8% of all deaths. Strokes are caused by the disruption of the blood supply to the brain. In addition to being an important cause of mortality, the disability burden from stroke is substantial. The gender gap in (age-standardised) mortality rates from stroke is not as large as for IHD (less than 20%).

As with IHD, there are wide variations in stroke mortality rates across countries. The rates are around three to four times higher than the EU average in Bulgaria, Romania and Latvia. They are the lowest in France, Luxembourg and Spain, with death rates about half the EU average (Figure 3.10).

Steady and substantial reductions in mortality rates from IHD, strokes and other circulatory diseases were the main driver of increases in life expectancy in previous decades, but these reductions have slowed down over the past five to ten years in several Western European countries (e.g. France, Germany and the United Kingdom). This has contributed to the slowdown in life expectancy improvements (OECD/The King's Fund, 2020).

There are wide socio-economic inequalities in mortality from circulatory diseases in most European countries, reflecting socio-economic differences in major risk factors. Many of these deaths can be prevented, but trends in several risk factors are going in the wrong direction. While smoking rates overall have fallen, cholesterol, blood pressure, low physical activity, obesity and diabetes are on the rise in many EU countries (OECD/The King's Fund, 2020).

A number of public health measures can be implemented to counter the slowdown in reducing mortality rates from circulatory diseases. Fiscal and regulatory measures can promote healthy lifestyles and help reduce the burden of cardiovascular diseases, as well as also ease pressures on health care systems.

Definition and comparability

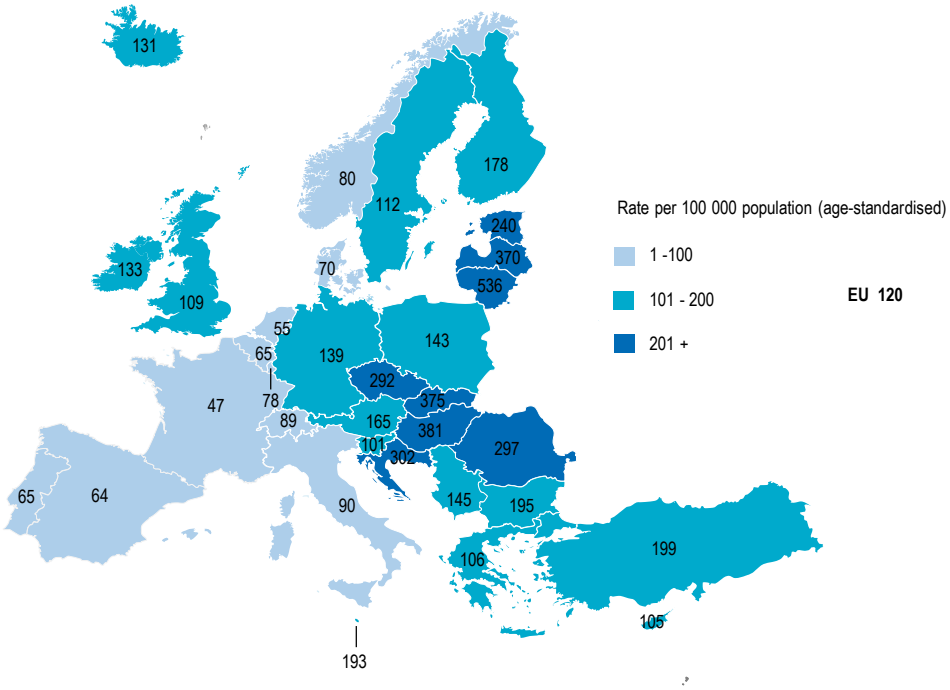
Mortality rates are based on the number of deaths registered in a country in a year divided by the population. The rates have been age-standardised to the revised European standard population adopted by Eurostat in 2012 to remove variations arising from differences in age structures across countries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

Deaths from ischaemic heart diseases relate to ICD-10 codes I20-I25, and cerebrovascular diseases (or stroke) to I60-I69.

Reference

OECD/The King's Fund (2020), *Is Cardiovascular Disease Slowing Improvements in Life Expectancy?*: *OECD and The King's Fund Workshop Proceedings*, OECD Publishing, Paris, *https://doi.org/10.1787/47a04a11-en*.

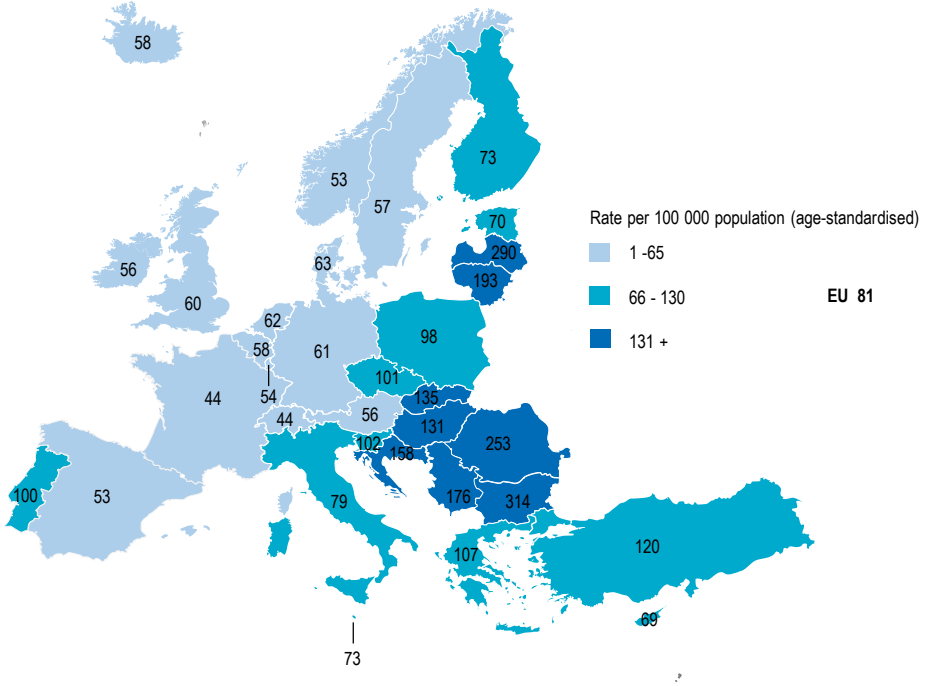
Figure 3.9. **Ischaemic heart disease mortality, 2017**



Note: The EU average is weighted (using imputed estimates for France for 2017). Three-year average (2015-17) for Cyprus, Iceland, Luxembourg, and Malta. Data refer to 2016 for France.
Source: Eurostat Database.

StatLink https://stat.link/2dwhpc

Figure 3.10. **Stroke mortality, 2017**



Note: The EU average is weighted (using imputed estimates for France for 2017). Three-year average (2015-17) for Cyprus, Iceland, Luxembourg, and Malta. Data refer to 2016 for France.
Source: Eurostat Database.

StatLink https://stat.link/t2m3wn

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