

Cardiovascular diseases are the main cause of mortality in almost all EU member states, accounting for 36% of all deaths in the region in 2010. They cover a range of diseases related to the circulatory system, including ischemic heart disease (known as IHD, or heart attack) and cerebro-vascular disease (or stroke). Together, IHD and stroke comprise 60% of all cardiovascular deaths, and caused more than one-fifth of all deaths in EU member states in 2010.

Ischemic heart disease is caused by the accumulation of fatty deposits lining the inner wall of a coronary artery, restricting blood flow to the heart. IHD alone was responsible for 13% of all deaths in EU member states in 2010. Mortality from IHD varies considerably, however (Figure 1.4.1); Baltic countries report the highest IHD mortality rates, Lithuania for both males and females, followed by Latvia, the Slovak Republic and Estonia. IHD mortality rates are also relatively high in Finland and Malta, with rates several times higher than in France, Portugal, the Netherlands and Spain. There are regional patterns to the variability in IHD mortality rates. Besides the Netherlands and Luxembourg, the countries with the lowest IHD mortality rates are four countries located in Southern Europe: France, Italy, Portugal and Spain, with Cyprus and Greece also having low rates. This lends support to the commonly held hypothesis that there are underlying risk factors, such as diet, which explain differences in IHD mortality across countries.

Death rates for IHD are much higher for men than for women in all countries (Figure 1.4.1). On average across EU member states, IHD mortality rates in 2010 were nearly two times greater for men. The disparity was greatest in Cyprus, France and Luxembourg, with male rates two-to-three times higher, and least in Malta, Romania and the Slovak Republic, at 60% higher.

Since the mid-1990s, IHD mortality rates have declined in nearly all countries (Figure 1.4.3). The decline has been most remarkable in Denmark, Ireland, the Netherlands and the United Kingdom. Estonia and Norway also saw IHD mortality rates cut by one-half or more, although rates in Estonia are still high. Declining tobacco consumption contributed significantly to reducing the incidence of IHD, and consequently to reducing mortality rates. Improvements in medical care have also played a part [see Indicator 3.8 “Cardiac procedures (coronary angioplasty)”. A small number of countries, however, have seen little or

no decline since 1995. Declines in Hungary, Poland and the Slovak Republic have been moderate, at under 20%.

Stroke was the underlying cause for about 9% of all deaths in 2010. It is a loss of brain function 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 (Moon et al., 2003). As with IHD, there are large variations in stroke mortality rates across countries (Figure 1.4.2). Again, the rates are highest in Baltic and central European countries, including Bulgaria, Hungary, Latvia, Lithuania, Romania and the Slovak Republic. They are the lowest in Cyprus, France, Ireland and the Netherlands. Rates are also low in Switzerland, Iceland and Norway.

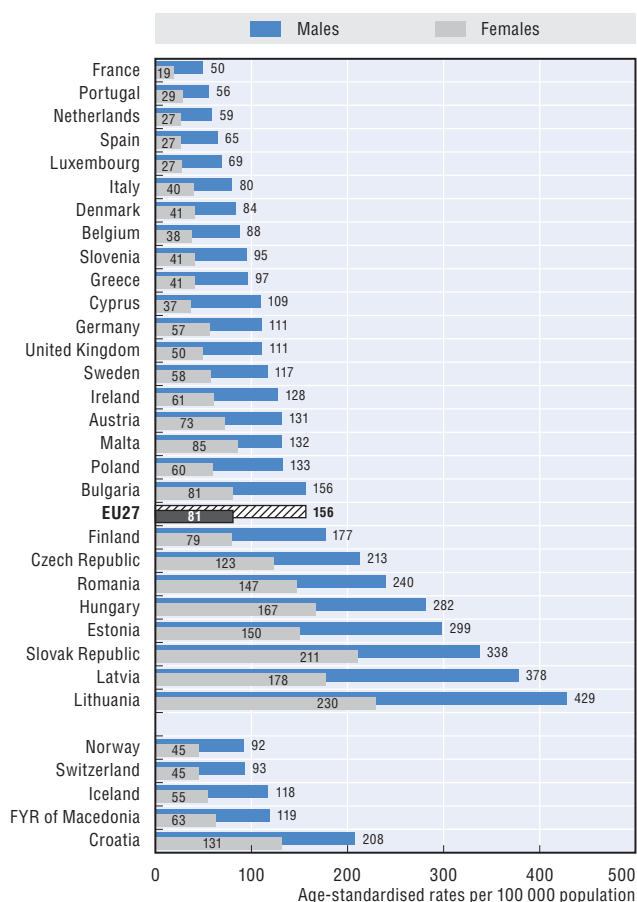
Looking at trends over time, stroke mortality has decreased in all EU member states since 1995, with a more pronounced fall after 2003 (Figure 1.4.4). Rates have declined by around 60% in Austria, Estonia and Portugal. The decline has only been moderate in Lithuania, Poland and the Slovak Republic. As with IHD, the reduction in stroke mortality can be attributed at least partly to a reduction in risk factors. Tobacco smoking and hypertension are the main modifiable risk factors for stroke. Improvements in medical treatment for stroke have also increased survival rates (see Indicator 4.4 “In-hospital mortality following stroke”).

Definition and comparability

Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population. The rates have been directly age-standardised to the WHO European standard population to remove variations arising from differences in age structures across countries and over time. The source is the Eurostat Statistics Database.

Deaths from ischemic heart disease are classified to ICD-10 Codes I20-I25, and stroke to I60-I69. Mathers et al. (2005) have provided a general assessment of the coverage, completeness and reliability of data on causes of death.

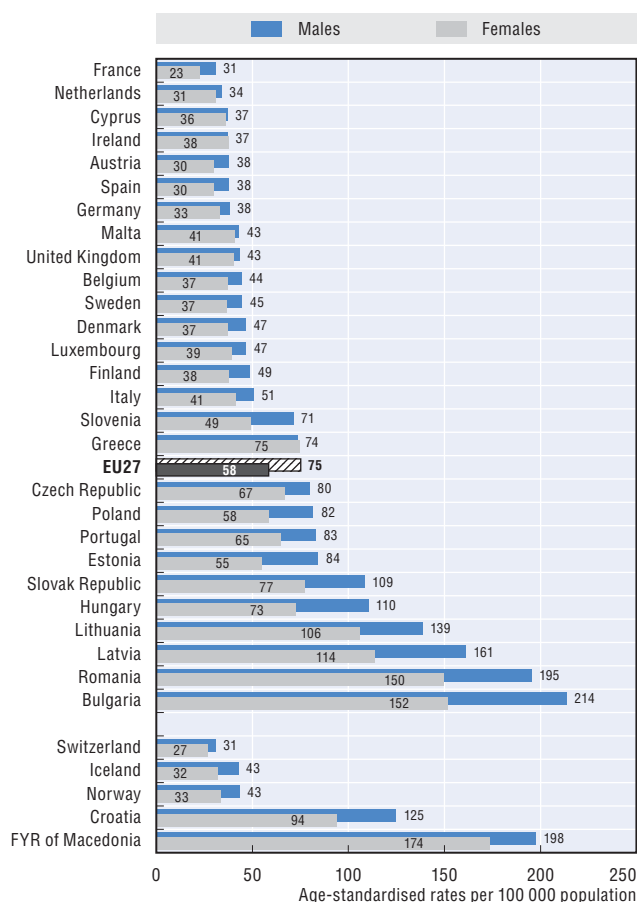
1.4.1. Ischemic heart disease, mortality rates, 2010 (or nearest year)



Source: Eurostat Statistics Database. Data are age-standardised to the WHO European standard population.

StatLink <http://dx.doi.org/10.1787/888932703050>

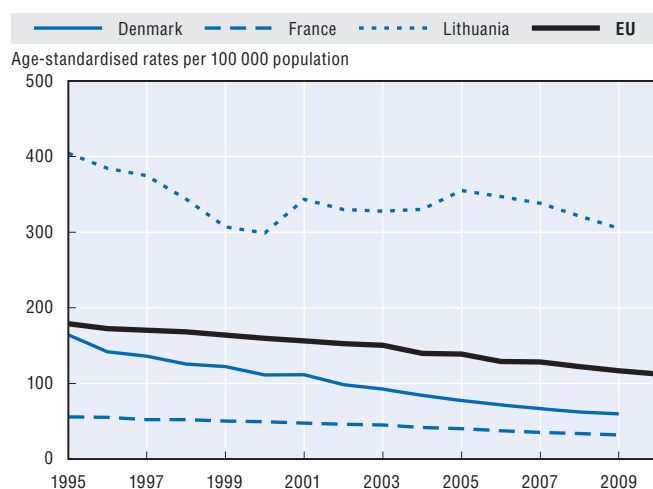
1.4.2. Stroke, mortality rates, 2010 (or nearest year)



Source: Eurostat Statistics Database. Data are age-standardised to the WHO European standard population.

StatLink <http://dx.doi.org/10.1787/888932703069>

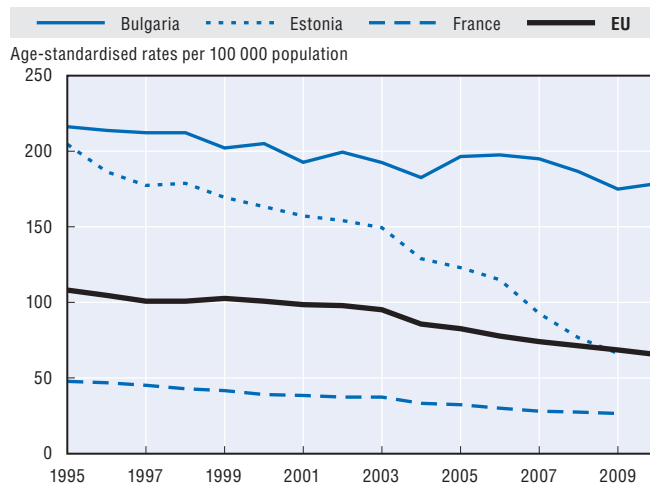
1.4.3. Trends in ischemic heart disease mortality rates, selected EU member states, 1995-2010



Source: Eurostat Statistics Database. Data are age-standardised to the WHO European standard population.

StatLink <http://dx.doi.org/10.1787/888932703088>

1.4.4. Trends in stroke mortality rates, selected EU member states, 1995-2010



Source: Eurostat Statistics Database. Data are age-standardised to the WHO European standard population.

StatLink <http://dx.doi.org/10.1787/888932703107>