

1. HEALTH STATUS

1.3. Mortality from cardiovascular diseases

Cardiovascular diseases are the main cause of mortality in most OECD countries, and accounted for 33% of all deaths in 2011. They cover a range of diseases related to the circulatory system, including ischemic heart disease (often referred to as heart attack) and cerebrovascular diseases such as stroke.

Ischemic heart disease (IHD) 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 12% of all deaths in OECD countries in 2011. Mortality from IHD varies considerably, however, across countries (Figure 1.3.1). Central and eastern European countries report the highest IHD mortality rates; Japan, Korea and France are the countries with the lowest rates. Across OECD countries, IHD mortality rates in 2011 were 90% higher for men than women.

IHD mortality rates have declined in nearly all OECD countries, with an average fall of 40% since 1990. The decline has been most remarkable in Denmark, the Netherlands, and Norway, where rates fell by two-thirds or more. Declining tobacco consumption contributed significantly to reducing the incidence of IHD, and consequently to reducing mortality rates. Improvements in medical care have also contributed to reduced mortality rates (see Indicator 4.6 “Cardiac procedures” and 5.3 “Mortality following acute myocardial infarction”).

The Slovak Republic and Mexico as well as Korea have witnessed a rise in IHD mortality rates. The increase was particularly large in Korea; however IHD mortality remains low in Korea and has started to fall after peaking in 2006. The initial rise has been attributed to changes in lifestyle and dietary patterns as well as environmental factors at the time of birth, with people born between 1940 and 1950 facing higher relative risks (OECD, 2012b; Juhn et al., 2011; Lee et al., 2012).

Cerebrovascular disease was the underlying cause for about 8% of all deaths in OECD countries in 2011. Cerebrovascular diseases refer to a group of diseases that relate to problems with the blood vessels that supply the brain. Common types of cerebrovascular disease include ischemic stroke, which develops when the brain's blood supply is blocked or interrupted, and haemorrhagic stroke which occurs when blood leaks from blood vessels onto the

surface of the brain. In addition to being an important cause of mortality, the disability burden from stroke and other cerebrovascular diseases is also substantial (Murray et al., 2013).

There are large variations in cerebrovascular disease mortality rates across countries (Figure 1.3.2). Hungary and the Slovak Republic report a cerebrovascular mortality that is more than three times higher than that of Switzerland and France. Many of the central and eastern European countries including the Czech Republic and Estonia have high mortality rates for both IHD and cerebrovascular disease. The high prevalence of risk factors common to both diseases (e.g. smoking and high blood pressure) helps explain this link.

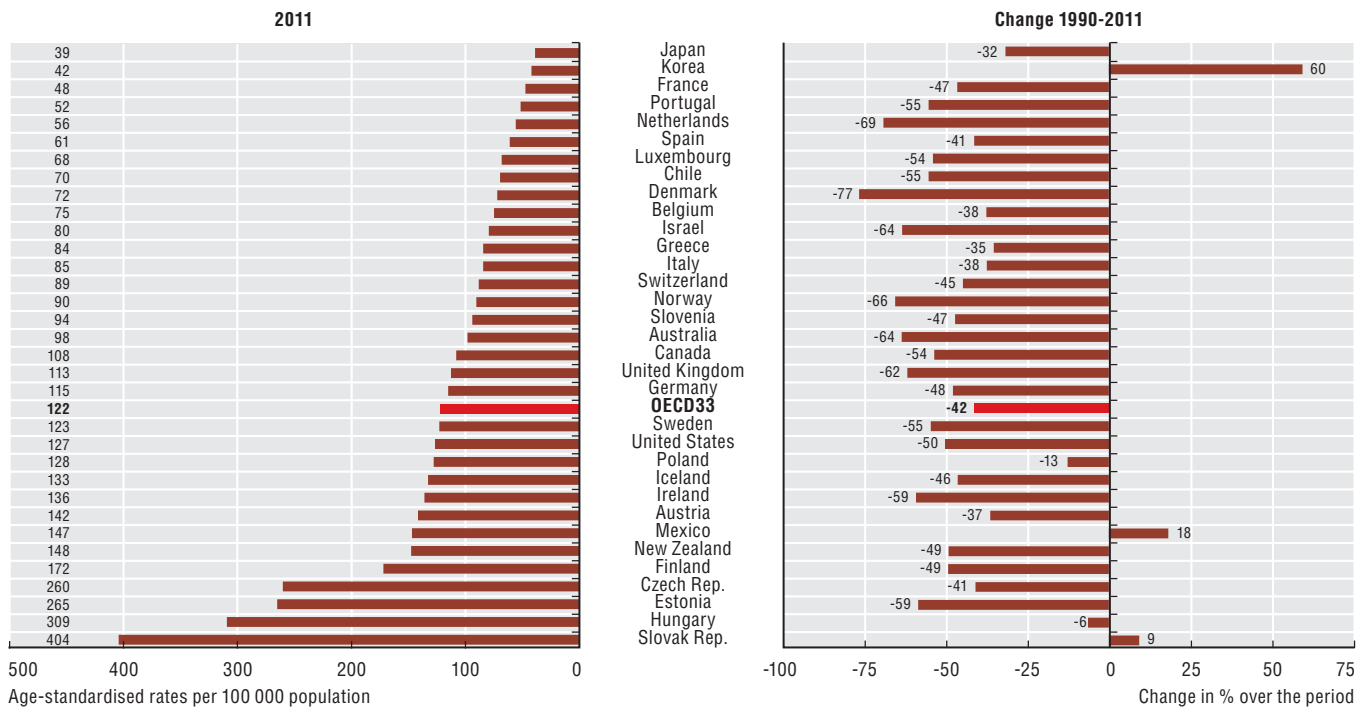
Since 1990, cerebrovascular disease mortality has decreased in all OECD countries, although only marginally in Poland and the Slovak Republic. On average, the mortality burden from cerebrovascular disease has been halved across OECD countries. In Estonia, Luxembourg, Portugal and Spain, the rates have been cut by at least two-thirds. As with IHD, the reduction in mortality from cerebrovascular disease can be attributed at least partly to a reduction in risk factors as well as improvements in medical treatments (see Indicator 5.4 “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 2010 OECD population to remove variations arising from differences in age structures across countries and over time. The source is the *WHO Mortality Database*.

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

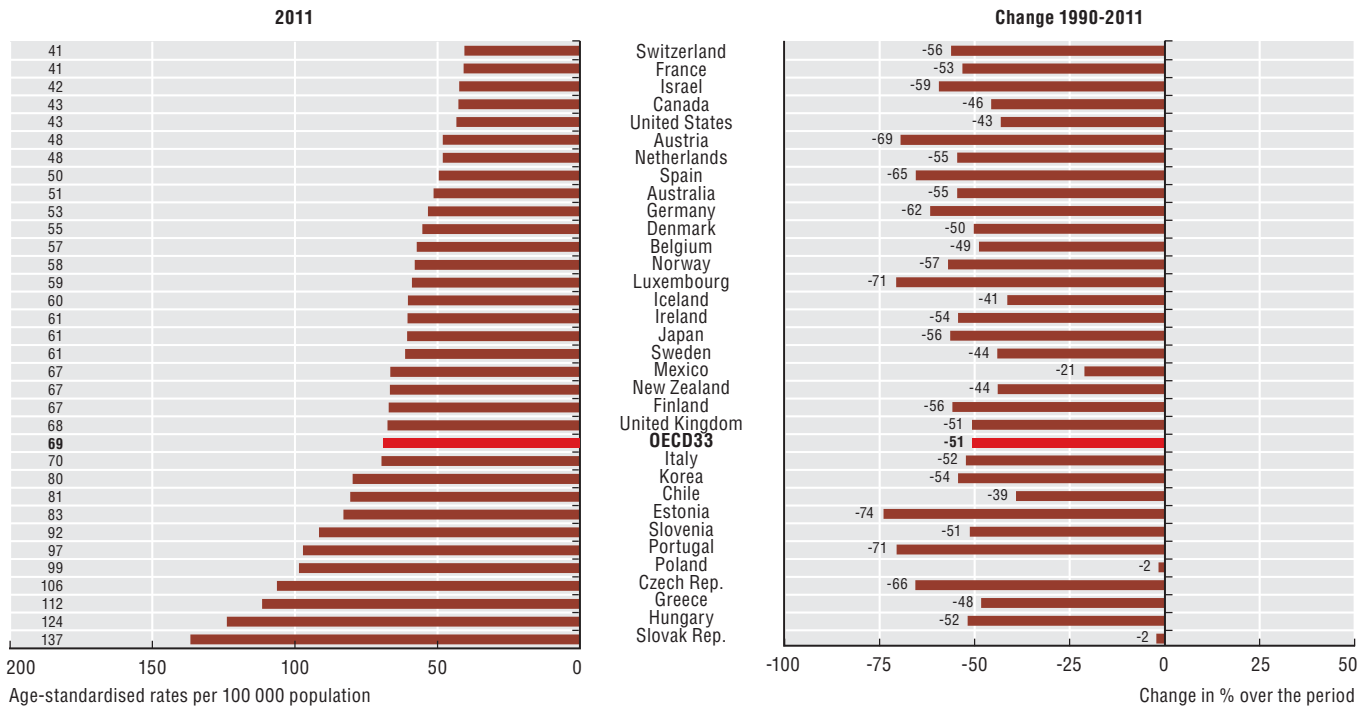
1.3.1. Ischemic heart disease mortality, 2011 and change between 1990 and 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888932916097>

1.3.2. Cerebrovascular disease mortality, 2011 and change between 1990 and 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888932916116>



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