

Mortality from cardiovascular diseases

Despite substantial declines in recent decades, cardiovascular diseases remain the main cause of mortality in most OECD countries, accounting for nearly one-third (32.3%) of all deaths in 2013. Prospects for further reductions may be hampered by a rise in certain risk factors such as obesity and diabetes (OECD, 2015). Cardiovascular diseases cover a range of illnesses 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 nearly 20% of all deaths in OECD countries in 2013. However, mortality from IHD varies considerably across countries (Figure 3.6). Central and Eastern European countries report the highest IHD mortality rates; Japan, France and Korea report the lowest rates. Across OECD countries, IHD mortality rates in 2013 were around 84% higher for men than women.

IHD mortality rates have declined in nearly all OECD countries, with an average reduction of 45% since 1990, contributing greatly to gains in life expectancy, particularly among men. 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 (see Indicator “Tobacco consumption among adults” in Chapter 4), and consequently to reducing mortality rates. Improvements in medical care have also contributed to reduced mortality rates (see the indicators on “Cardiac procedures” in Chapter 6 and “Mortality following acute myocardial infarction” in Chapter 8).

In Korea, IHD mortality rates have increased substantially since 1990, although they remain low compared with nearly all other OECD countries and have started to fall after peaking in 2006. The initial rise in IHD mortality rates in Korea 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. In 2006, Korea introduced a Comprehensive Plan to tackle cardiovascular diseases that encompassed prevention and primary care as well as better acute care, contributing to the reduction in mortality in recent years (OECD, 2012).

Cerebrovascular disease was the underlying cause for about 7% of all deaths in OECD countries in 2013. Cerebrovascular disease refers to a group of diseases that relate to problems with the blood vessels that supply the brain. Common manifestations 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 into 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., 2015).

There are large variations in cerebrovascular disease mortality rates across countries (Figure 3.7). The Slovak Republic and Hungary report a cerebrovascular mortality that is more than three times higher than that of Switzerland, Canada and France, and have the highest mortality rates for both IHD and cerebrovascular disease. The high prevalence of risk factors common to both diseases (such as smoking and high blood pressure) may explain this link.

Since 1990, cerebrovascular disease mortality has decreased in all OECD countries, although to a lesser extent in Poland and the Slovak Republic. On average, the mortality burden from cerebrovascular disease has halved across OECD countries. In Estonia, Luxembourg and Portugal, the rates have been cut by at least two-thirds, although in Estonia this is partly due to a change in death recording practices with a greater recording of other related causes of death such as hypertension. 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 “Mortality following stroke” in Chapter 8), but rising obesity and diabetes threatens progress in tackling cerebrovascular disease (OECD, 2015).

Definition and comparability

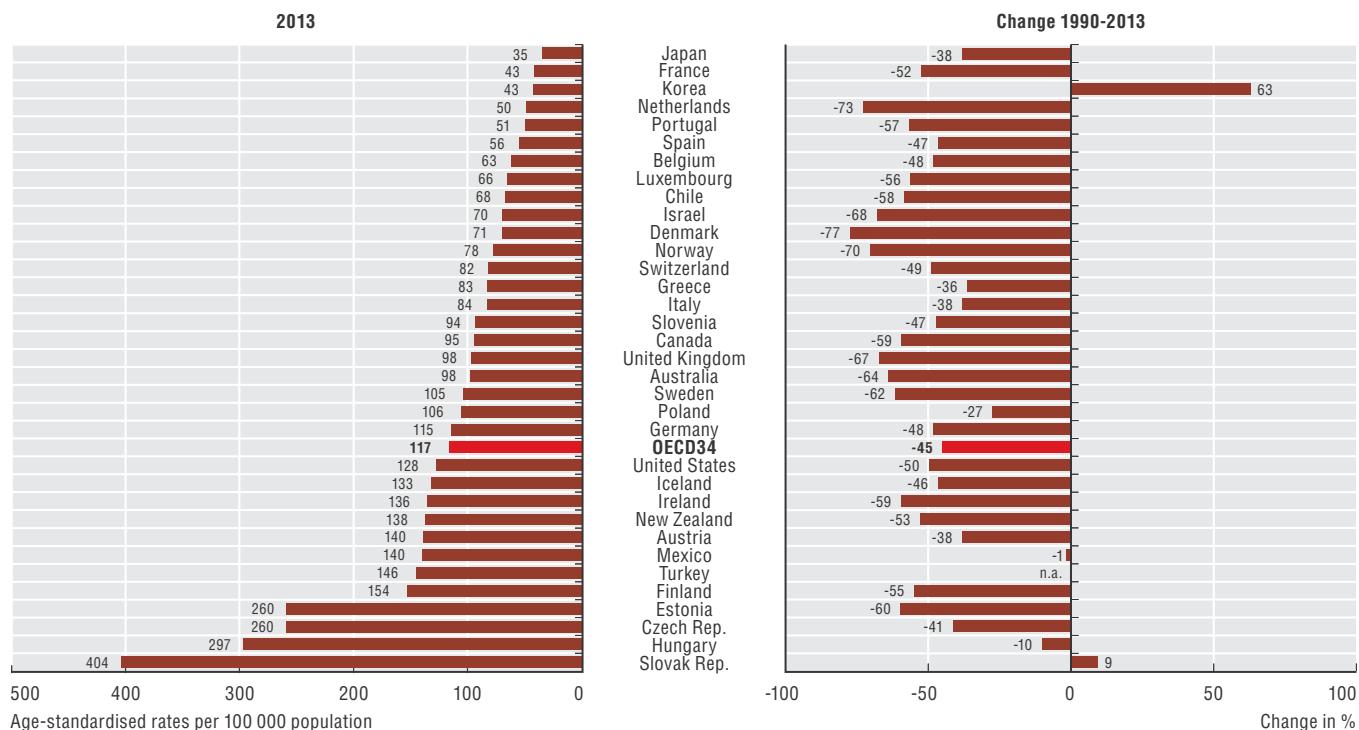
Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population. The rates have been directly age-standardised to the 2010 OECD population to remove variations arising from differences in age structures across countries and over time. 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.

References

- Murray, C.J.L. et al. (2015), “Global, Regional, and National Disability-adjusted Life Years (DALYs) for 306 Diseases and Injuries and Healthy Life Expectancy (HALE) for 188 Countries, 1990-2013: Quantifying the Epidemiological Transition”, *The Lancet*, published online: 26 August 2015.
- OECD (2015), *Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264233010-en>.
- OECD (2012), *OECD Reviews of Health Care Quality: Korea: Raising Standards*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264173446-en>.

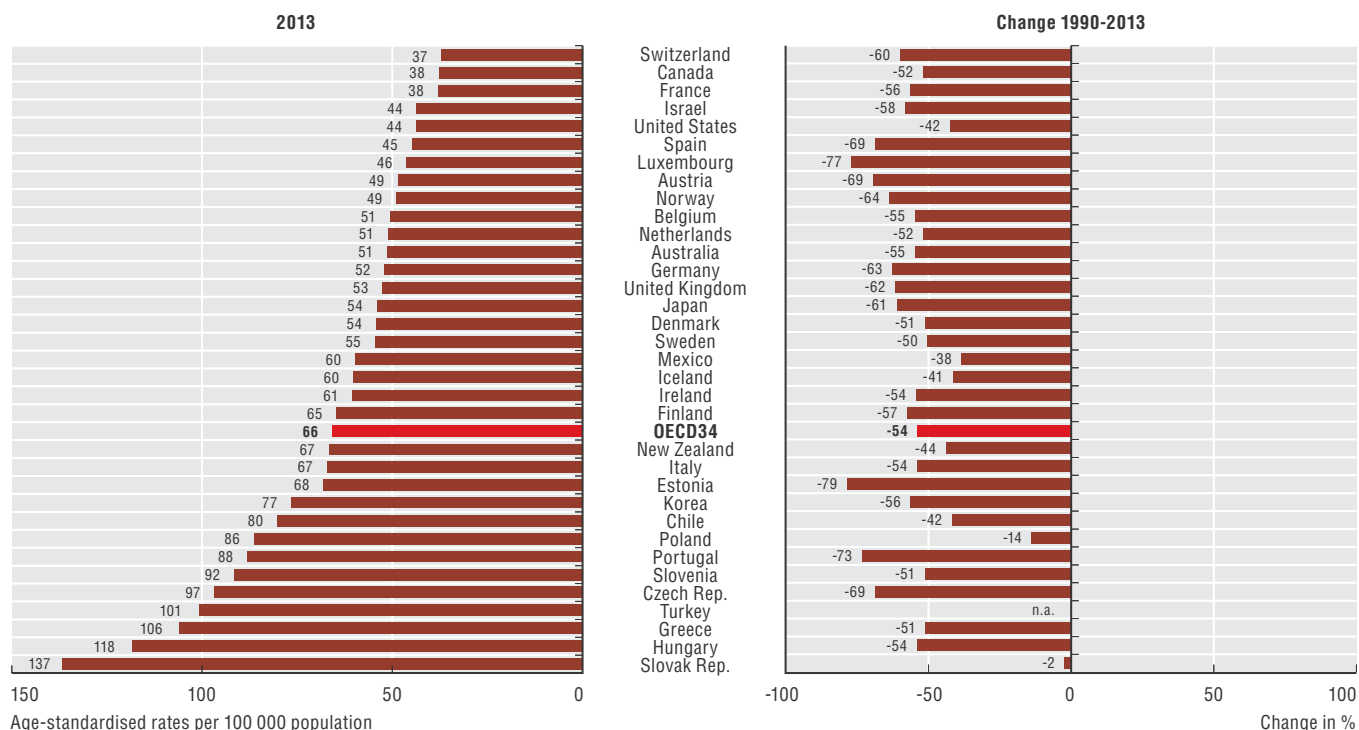
3.6. Ischemic heart disease mortality, 2013 and change 1990-2013 (or nearest years)



Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888933280741>

3.7. Cerebrovascular disease mortality, 2013 and change 1990-2013 (or nearest years)



Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888933280741>

Information on data for Israel: <http://oe.cd/israel-disclaimer>



From:
Health at a Glance 2015
OECD Indicators

Access the complete publication at:
https://doi.org/10.1787/health_glance-2015-en

Please cite this chapter as:

OECD (2015), "Mortality from cardiovascular diseases", in *Health at a Glance 2015: OECD Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/health_glance-2015-8-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.