

Mortality from cardiovascular disease

Cardiovascular disease (CVD) is the leading cause of death in Asia-Pacific, although highly preventable. CVD was the cause of an estimated 9.85 million deaths in SEARO and WPRO and accounted for 45% of all NCD deaths in 2019 in these regions.

CVD covers a range of diseases related to the circulatory system, including ischaemic heart disease (IHD) and cerebrovascular disease (or stroke). Ischemic heart disease is caused by the accumulation of an atherosclerotic plaque in the inner wall of a coronary artery, restricting blood flow to the heart. 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 subarachnoid space or the surface of the brain. Together, IHD and stroke comprise 87.8% of all cardiovascular deaths in WPRO and SEARO countries and territories combined (<https://www.who.int/data/gho>).

The majority of CVD is caused by risk factors that can be controlled, treated, or modified, such as high blood pressure, high blood glucose, high blood cholesterol, obesity, lack of physical activity, tobacco use (see indicator “Tobacco” in Chapter 4) and excessive alcohol consumption.

Age-standardised mortality from cardiovascular disease varied across countries and territories with a notably high level, exceeding 545 deaths per 100 000 population in Solomon Islands in 2019 (Figure 3.14). This contrasted with Lao PDR, Indonesia, Australia, Pakistan and Singapore where death rates were below 100 per 100 000 population. The large variation in mortality may be due to differences in the prevalence of risk factors for CVD and access to high quality acute care (see indicator “In-hospital mortality following acute myocardial infarction and stroke” in Chapter 7) across countries and territories. The average mortality rate from CVD in lower-middle- and low-income Asia-Pacific countries and territories was more than twice the one in OECD member countries (282 versus 122 deaths per 100 000 population). While most Asia-Pacific countries and territories had decreased mortality from CVD, the rate increased in Solomon Islands, Korea, India, and New Zealand from 2000 to 2019.

Success of reducing the mortality rates from CVD in OECD countries owes to a decline in smoking rates, expanded health system's capacity to control high cholesterol and blood pressure, and greater access to effective care in the event of an acute episode such as a stroke or heart attack (OECD, 2015_[1]). As an example, in Japan population-based interventions such as salt reduction campaigns and an increased use of antihypertensive drugs covered by the health insurance system were successful in controlling blood pressure, resulting in the reduction of CVD mortality (Ikeda et al., 2011_[2]).

The types of CVD that are fatal differ across countries and territories in the region. In Nepal, Viet Nam, Japan, India, Cambodia, Bangladesh, China and Malaysia mortality from cerebrovascular disease was greater than IHD (Figure 3.15). In all other Asia-Pacific countries and territories, the trend was similar to European and North American countries and mortality from IHD was greater than for stroke (Ueshima et al., 2008_[3]).

As the proportion of older people increases in Asia-Pacific (see indicator “Ageing” in Chapter 3), demand for health care will increase and the complexity and type of care that CVD patients require will change. Increases in total cholesterol and blood pressure, along with smoking, overweight/obesity, and high blood glucose (see indicator “Diabetes” in Chapter 3) highlight the need for management of risk factors to control the CVD epidemic. In addition to efforts to improve lifestyles, primary care needs to be strengthened and accessible, and quality of acute care needs to improve through better emergency care and improved professional skills and training capacity (OECD, 2015_[1]).

Definition and comparability

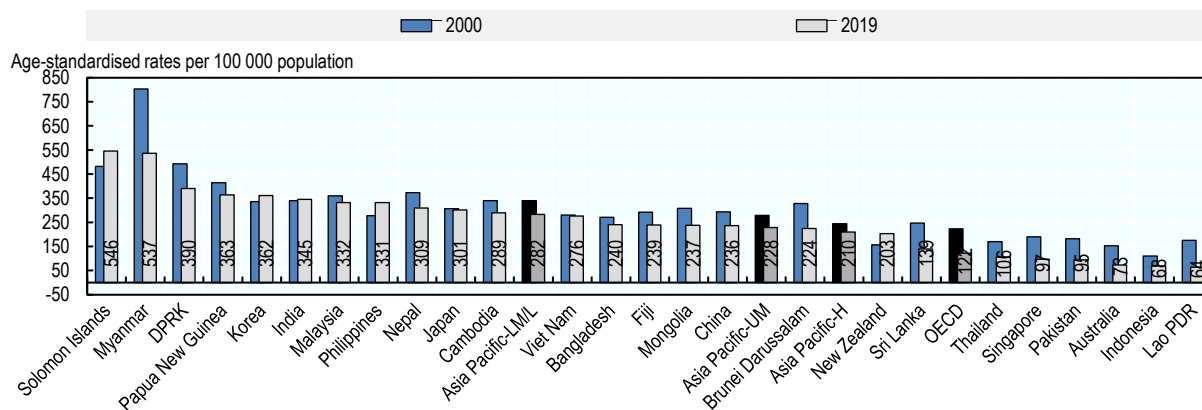
See indicator “Mortality from all causes” in Chapter 3 for definition, source, and methodology underlying mortality rates.

OECD averages are calculated as simple averages using WHO data for all 38 member countries, to improve comparability with Asia-Pacific countries and territories by using the same standardisation process.

References

- Ikeda, N. et al. (2011), “What has made the population of Japan healthy?”, *The Lancet*, Vol. 378, pp. 1094-1105, <https://doi.org/10.1016/S0140>. [2]
- OECD (2015), *Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care*, OECD Health Policy Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264233010-en>. [1]
- Ueshima, H. et al. (2008), “Cardiovascular disease and risk factors in Asia: A selected review”, *Circulation*, Vol. 118/25, pp. 2702-2709, <https://doi.org/10.1161/CIRCULATIONAHA.108.790048>. [3]

Figure 3.14. Cardiovascular disease, estimated mortality rates, 2000 and 2019

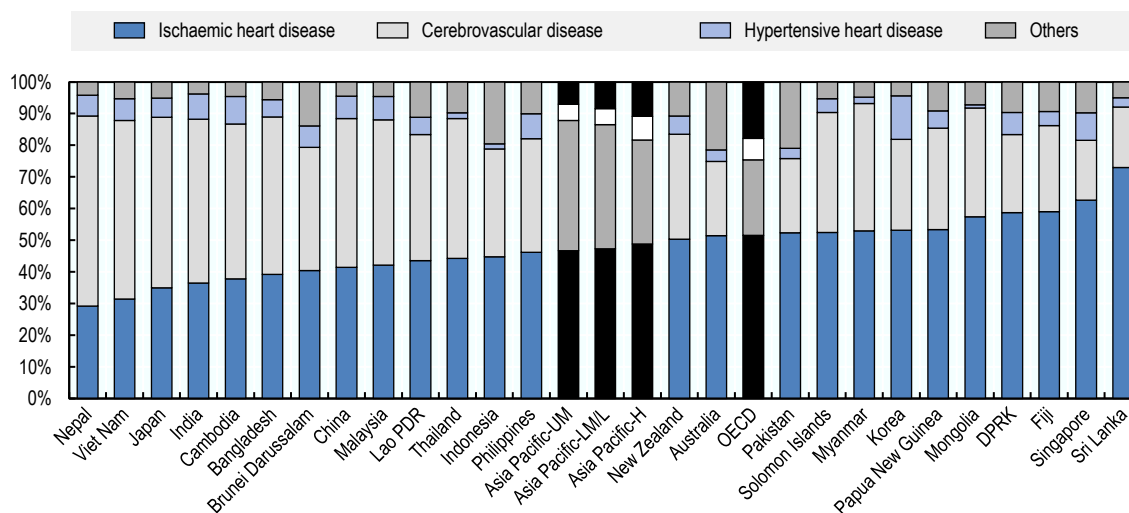


Note: OECD is a simple average calculated with data from WHO 2019 GHE.

Source: WHO 2019 Global Health Estimates.

StatLink <https://stat.link/eigpuv>

Figure 3.15. Proportions of cardiovascular disease deaths, 2019



Note: OECD is a simple average calculated with data from WHO 2019 GHE.

Source: WHO 2019 Global Health Estimates.

StatLink <https://stat.link/0n9wem>



From:
Health at a Glance: Asia/Pacific 2022
Measuring Progress Towards Universal Health Coverage

Access the complete publication at:
<https://doi.org/10.1787/c7467f62-en>

Please cite this chapter as:

OECD/World Health Organization (2022), "Mortality from cardiovascular disease", in *Health at a Glance: Asia/Pacific 2022: Measuring Progress Towards Universal Health Coverage*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/138f8d8f-en>

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