Cardiovascular disease (CVD) is the leading cause of death in the Asia-Pacific region, although highly preventable. CVD was the cause of an estimated 9.1 million deaths in SEARO and WPRO and accounted for about one-third of all deaths in 2012 (WHO, 2014h).

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 (subarachnoid haemorrhage) or within the brain (intracerebral haemorrhage). Together, IHD and stroke comprise 83.4% of all cardiovascular deaths in WPRO and SEARO countries combined (WHO, 2014h).

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 (see indicator "Overweight or obese adults" in Chapter 2), lack of physical activity, tobacco use (see indicator "Tobacco" in Chapter 2) and excessive alcohol consumption.

Mortality from cardiovascular disease varied across countries with a notably high level, exceeding 500 deaths per 100 000 population in Mongolia in 2012 (Figure 1.11). This was in contrast to a group of developed countries (Republic of Korea, Japan, Singapore, Australia, and New Zealand) and Macao, China and Hong Kong, China where death rates were below 120 per 100 000 population. The large variation in mortality may be due to differences in the prevalence of risk factors for CVD and also access to high quality acute care (see indicator "In-hospital mortality following acute myocardial infarction and stroke" in Chapter 5) across countries. The average mortality rates from CVD were 50% higher in Asian countries than in OECD countries (242 versus 161 deaths per 100 000 population). While OECD countries had decreased mortality from CVD, the rate increased in Asian countries.

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, 2015a). 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).

The types of CVD that are fatal differ across countries in the region. In China, Indonesia, DPR Korea, Japan, the Republic of Korea, Myanmar, Solomon Islands and Viet Nam, morbidity and mortality from stroke was greater than IHD (Figure 1.12). In Brunei Darussalam, Fiji, Singapore and Sri Lanka in particular, and many other countries in the region, the trend was similar to European and North American countries and mortality and morbidity from IHD was greater than for stroke (Ueshima et al., 2008).

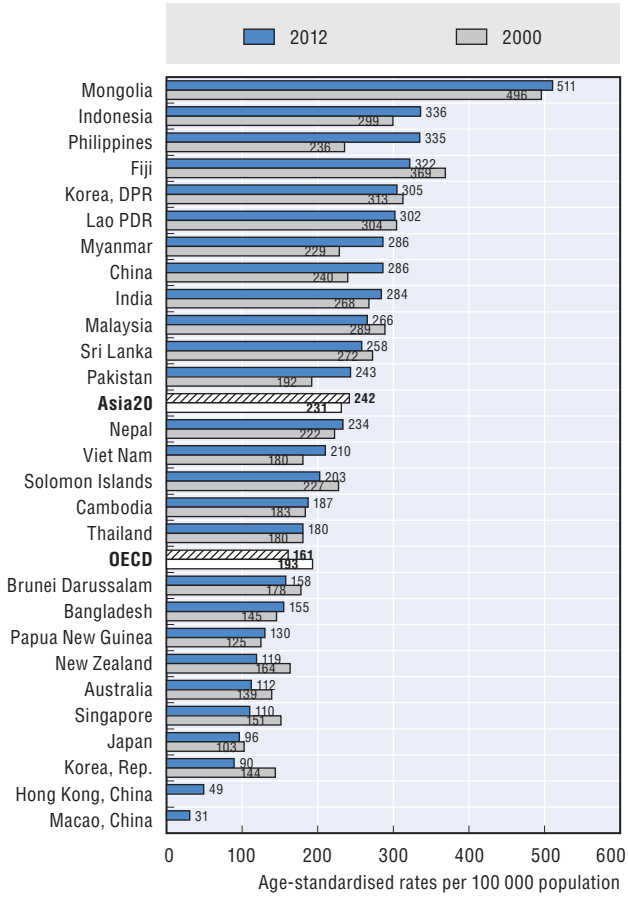
Mortality rates for CVD increase with age, and in China, India and Indonesia they are higher than OECD countries across all age groups (Figure 1.13).

As the proportion of older people increases in the Asia-Pacific region (see indicator "Ageing" in Chapter 1), 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 1) highlight the need for management of risk factors to prevent an epidemic of CVD. In addition to efforts to improve lifestyles, primary care needs to be strengthened and quality of acute care also needs to improve through better emergency care and improved professional skills and training capacity (OECD, 2015a).

Definition and comparability

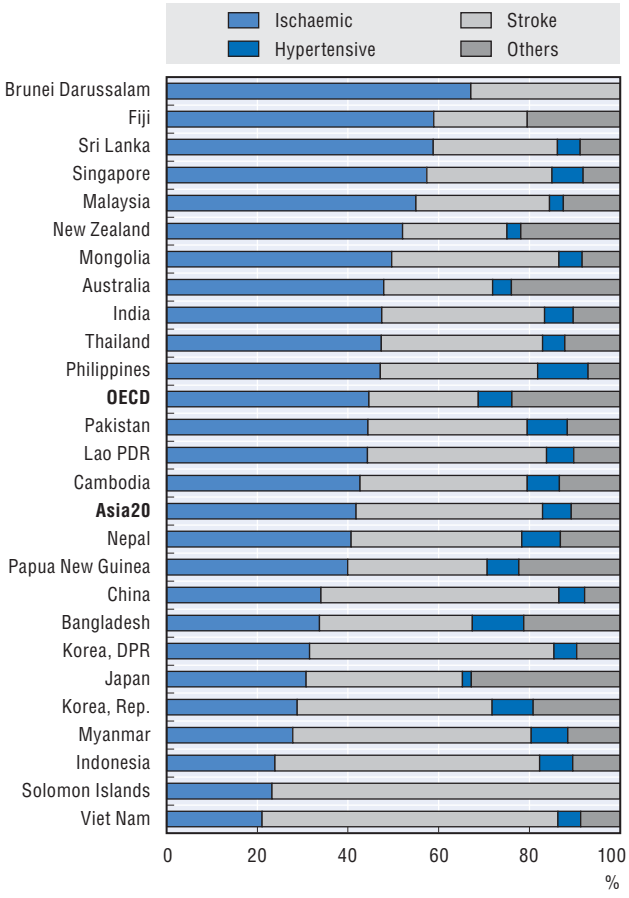
See indicator "Mortality from all causes" in Chapter 1 for definition, source and methodology underlying mortality rates.

1.11. Cardiovascular disease, estimated mortality rates, 2000 and 2012



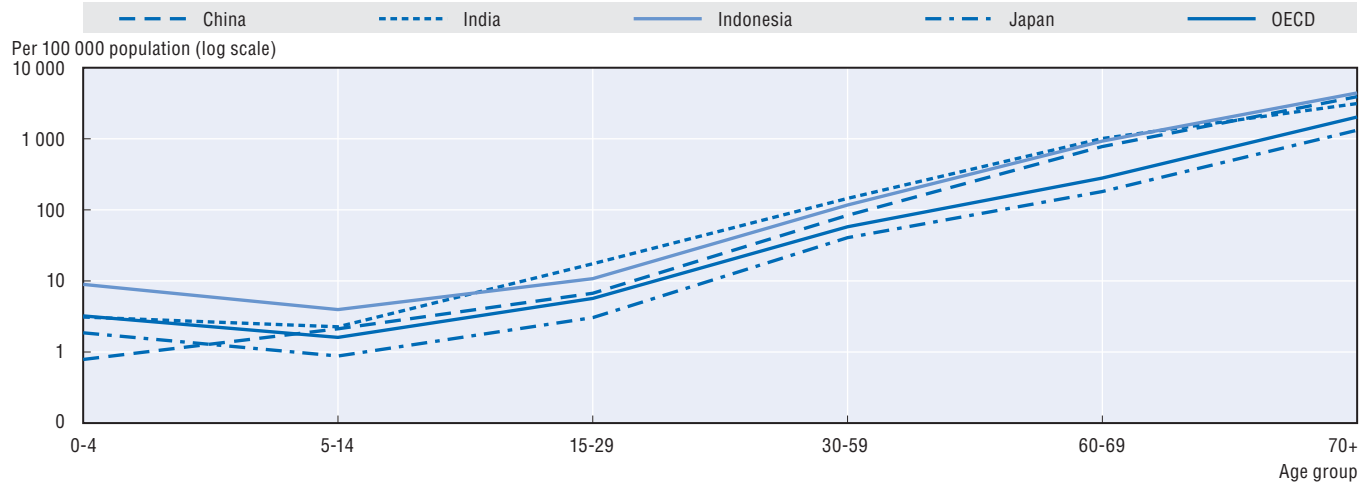
Source: WHO (2014), "Global Health Estimates"; Department of Health, Hong Kong, China, 2014; Disease Registry, Macao, China, 2014.

1.12. Proportions of cardiovascular disease deaths, 2012



Source: WHO (2014), "Global Health Estimates".

1.13. Cardiovascular disease, age-specific mortality rates, selected countries and OECD, 2012



Source: WHO (2014) "Global Health Estimates".

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