Main causes of mortality

In 2021, over 12 million people died across OECD countries – equivalent to 932 deaths per 100 000 population (Figure 3.5). This is almost 1.5 million more than in 2019, largely due to COVID-19. Diseases of the circulatory system and cancer remain the two leading causes of death in most countries. There is an ongoing epidemiological transition from communicable to non-communicable diseases in many middle-income countries, which has already taken place in high-income countries (Vos et al., 2020[1]). Across OECD countries in 2021, heart attacks, strokes and other circulatory diseases caused more than one in four deaths; around one in five deaths were related to cancer. Population ageing largely explains the predominance of deaths from circulatory diseases – with deaths rising steadily from age 50.

Respiratory diseases were also a major cause of death, accounting for 9% of deaths across OECD countries. Chronic obstructive pulmonary disease (COPD) alone accounted for 3% of all deaths. Smoking is the main risk factor for COPD, but occupational exposure to dust, fumes and chemicals, and air pollution in general, are also important risk factors.

COVID-19 caused 7% of all deaths in 2021 (based on recorded figures). Since then, its effects have decreased, but it continues to be one of the leading causes of mortality. For example, in the United States, COVID-19 was the fourth leading underlying cause of mortality during 2022 (Ahmad et al., 2023[2]).

External causes were responsible for 6% of deaths across OECD countries – notably road traffic accidents and suicide. Road traffic accidents are a particularly important cause of death among young adults, whereas suicide rates are generally higher among middle-aged and older people. Further, in some countries – notably the United States and Canada – the opioid crisis has caused more working-age adults to die from drug-related accidental poisoning (see section on "Illicit drug use" in Chapter 4).

Looking at other specific causes, Alzheimer's and other dementias accounted for 6% of all deaths; they were a more important cause of death among women than men. Diabetes represented 3% of all deaths across OECD countries. The main causes of death differ between socio-economic groups, with social disparities generally larger for the most avoidable diseases. For example, people with the lowest level of education are more likely to smoke in most OECD countries, increasing the risk of developing cancers and diseases of the respiratory system (OECD, 2019[3]).

Across OECD countries, all-cause age-standardised mortality rates in 2021 ranged from under 700 deaths per 100 000 in Japan, Korea and Australia, to over 1 300 deaths per 100 000 in Lithuania, Latvia and Mexico (Figure 3.6). On average, the total mortality rate across OECD countries was 923 per 100 000 in 2021, which is notably higher than the rate observed before the onset of the COVID-19 pandemic (770 per 100 000 in 2019). Among OECD accession and partner countries, mortality rates were highest in South Africa (1 893 per 100 000 population) and Bulgaria (1 504 per 100 000).

Definition and comparability

Mortality rates are based on the number of deaths registered in a country in a year divided by the population. Rates have been age-standardised to the 2015 OECD population (available at http://oe.cd/mortality) to remove variations arising from differences in age structures across countries and over time. Note that this results in some age-standardisation differences with other population standards used by, for example, the World Health Organization (WHO) and the EU. The source for mortality rates is the WHO Mortality Database.

Deaths from all causes are classified as International Classification of Diseases, tenth revision (ICD-10) codes A00-Y89, excluding S00-T98. The classification of causes of death defines groups and subgroups. Groups are umbrella terms covering diseases that are related to each other; subgroups refer to specific diseases. For example, the group "diseases of the respiratory system" comprises four subgroups: influenza, pneumonia, COPD and asthma. Charts are based on this grouping, except for Alzheimer's and other dementias. These were grouped together (Alzheimer's is classified in group G and other dementias in group F).

References

Ahmad, F. et al. (2023), "Provisional Mortality Data — United States, 2022", *MMWR. Morbidity and Mortality Weekly Report*, Vol. 72/18, pp. 488-492, https://doi.org/10.15585/mmwr.mm7218a3. [2]

OECD (2019), *Health for Everyone?: Social Inequalities in Health and Health Systems*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/3c8385d0-en. [3]

Vos, T. et al. (2020), "Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019", *The Lancet*, Vol. 396/10258, pp. 1204-1222, https://doi.org/10.1016/s0140-6736(20)30925-9. [1]
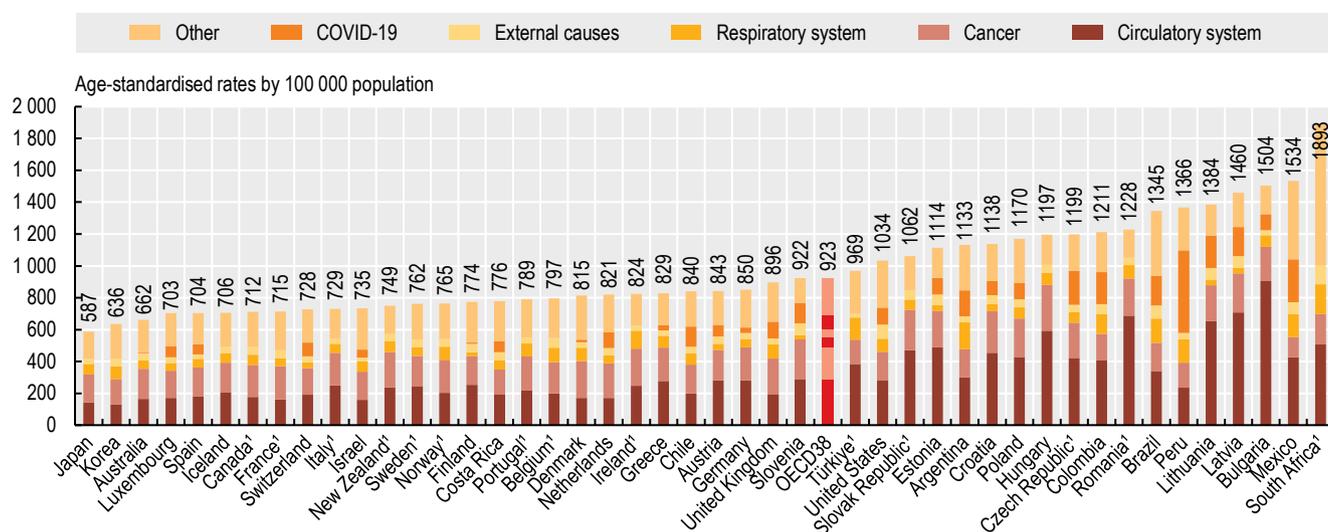
Figure 3.5. Main causes of mortality across OECD countries, 2021 (or nearest year)
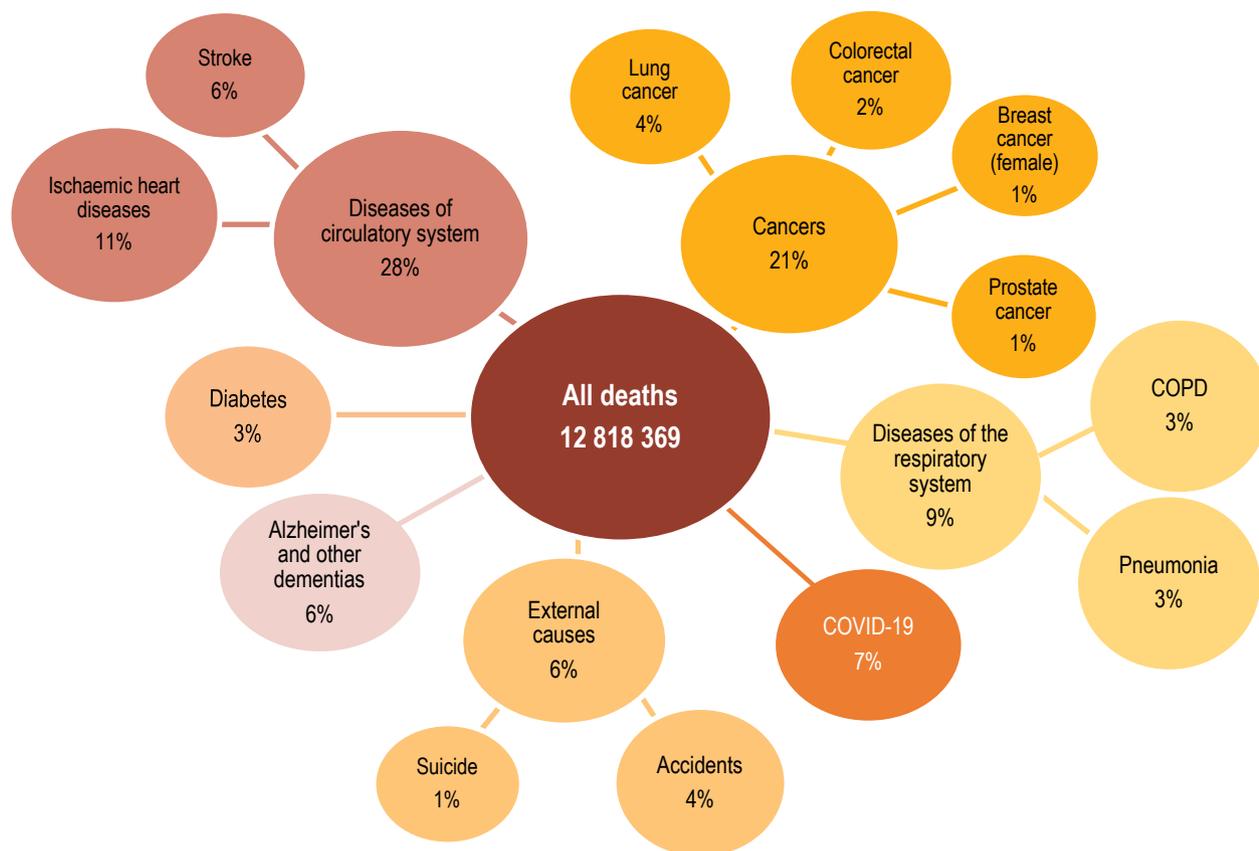
Note: Other causes of death not shown in the figure represent 21% of all deaths.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/a6xnzp

Figure 3.6. Main causes of mortality by country, 2021 (or nearest year)

Note: External causes of death include accidents, suicides, homicides, and other causes. 1. Most recent data point corresponds to 2016-19.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/94o85u