

6. QUALITY AND OUTCOMES OF CARE

Diabetes care

Effective management of diabetes is a public health priority, with over 463 million people living with the condition worldwide. Diabetes is a chronic disease that occurs when the body's ability to regulate excessive glucose levels in the blood is diminished. Diabetes caused 4.2 million deaths in 2019, and it is projected that by 2045 up to 700 million adults will have the condition (International Diabetes Federation, 2020[18]). It is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation.

More recently, diabetes has been found to be an important risk factor for hospitalisation and death due to COVID-19 (Muniyappa and Gubbi, 2020[19]; Singh et al., 2020[20]), and several studies have found that potential complications of COVID-19 infection include development of diabetes and kidney failure (Collins, 2021[21]). In addition, measures put in place to respond to the COVID-19 pandemic have disrupted routine management of diabetes (Chudasama et al., 2020[22]).

Ongoing control of diabetes usually involves a considerable amount of self-management; therefore, patient-centred care instruction and education are central to the primary care of people with diabetes (OECD, 2020[14]). Effective control of blood glucose levels through routine monitoring, dietary modification and regular exercise can reduce the onset of serious complications and the need for hospitalisation. Management of key risk factors such as smoking, blood pressure and lipid levels are also important in reducing complications.

Figure 6.12 shows avoidable hospital admissions for diabetes. While admissions have fallen in many countries over time, a more than 6-fold variation in the rates still occurs across countries. In 2019, Iceland, Italy and Spain reported the lowest rates, with Lithuania, the United States and Korea reporting rates nearly twice the OECD average. Prevalence of diabetes and general access to hospital care may explain some of this variation (OECD, 2015[23]). During the COVID-19 crisis, diabetes hospital admission rates decreased in most countries that were able to report 2020 data. The reduction was largest in Lithuania, potentially reflecting reduced use of health care services across multiple settings. Austria, the Czech Republic, Ireland, Portugal and Latvia also reduced the proportion, although the extent of the reduction was limited.

In diabetic individuals with hypertension, angiotensin-converting enzyme inhibitors or angiotensin receptor blockers are recommended in most national guidelines as first-line medications to reduce blood pressure. Figure 6.13 reveals broad consistency in the proportion of diabetic patients on recommended antihypertensive medications: only Finland, Belgium and Korea had rates lower than 80%.

High-quality primary care can reduce the risk of amputations, and hospital admissions for major lower extremity amputation reflect the long-term quality of diabetes care. Figure 6.14 shows

the rates of amputation among adults with diabetes. The international variation is 18-fold. Iceland, Korea and Italy reported rates lower than 3 per 100 000 general population, while Israel, Mexico and Costa Rica reported rates between 13 and 18 per 100 000. In 2020, the rates were not significantly different from 2019 in all countries that reported 2020 data.

The relationship between the nature, frequency and duration of primary care for diabetes and the rate of admissions to hospital for related complications is complex and warrants further research. The OECD is conducting an international survey of patients with chronic conditions, including diabetes, to capture their self-reported health outcomes and better understand their primary care context. This survey is central to the OECD's PaRIS initiative (<https://www.oecd.org/health/paris.htm>).

Definition and comparability

Diabetes avoidable admission is based on the sum of three indicators: admissions for short-term and long-term complications and for uncontrolled diabetes without complications. The indicator is defined as the number of hospital admissions with a primary diagnosis of diabetes among people aged 15 years and over per 100 000 population.

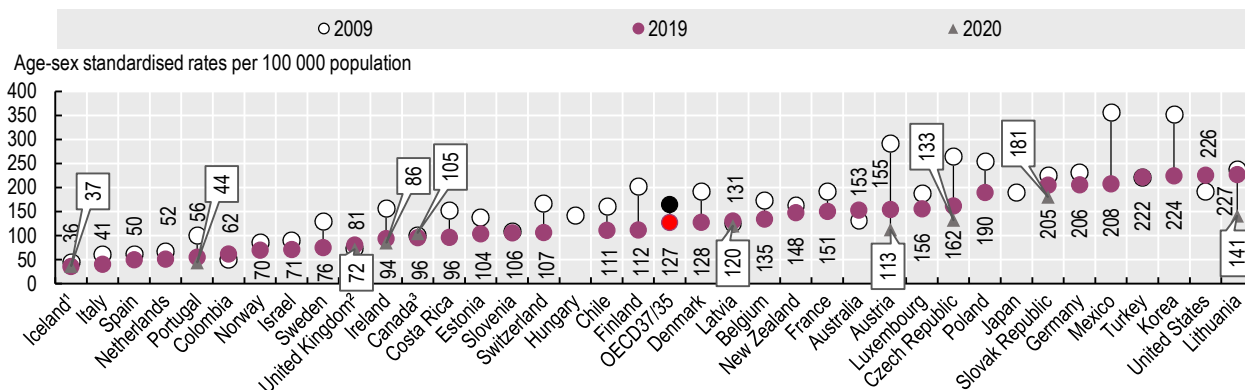
The denominator of people with diabetes who have recommended antihypertensive medication prescriptions is based on people with diabetes (i.e. who are long-term users of glucose-regulating medication) who also have one or more prescriptions per year from a range of medications often used in the management of hypertension. The numerator is the number of these people who have one or more prescriptions of an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker.

Major lower extremity amputation in adults with diabetes is defined as the number of discharges of people aged 15 years and over per 100 000 population. Rates for these indicators have been directly age-standardised to the 2010 OECD population.

Differences in data definition, coding practices and indicator calculation methods between countries may affect comparability of data. For example, in many countries diabetes is coded as a secondary diagnosis while a few countries code it as a primary diagnosis. Differences in data coverage of the national hospital sector across countries may also influence indicator rates.

In all instances, national data are reported. Variations in the coverage and national representativeness of the indicators for countries are documented in the sources and methods information in OECD.Stat.

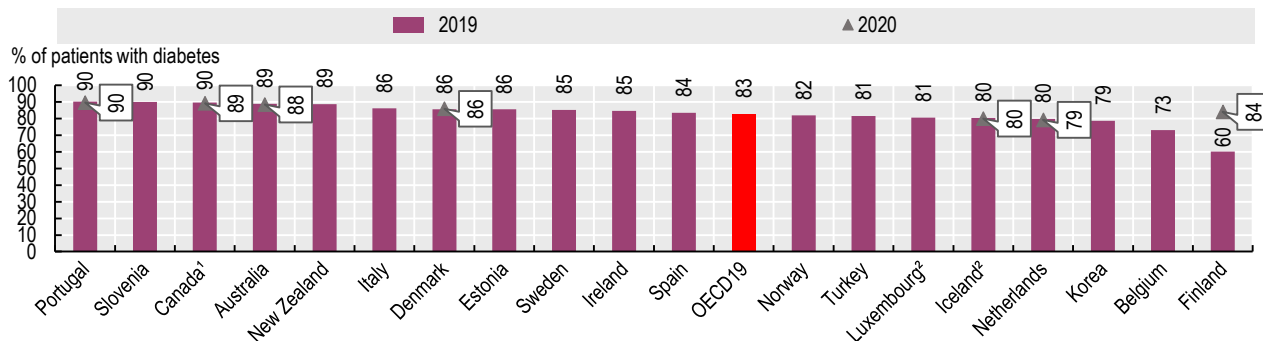
Figure 6.12. Diabetes hospital admission in adults, 2009, 2019 (or nearest year) and 2020



1. Three-year average. 2. 2020 data are provisional and include England only. 3. 2020 estimate based on provisional 1 April to 30 September data from all jurisdictions except Quebec.
Source: OECD Health Statistics 2021.

StatLink <https://stat.link/ozbin2>

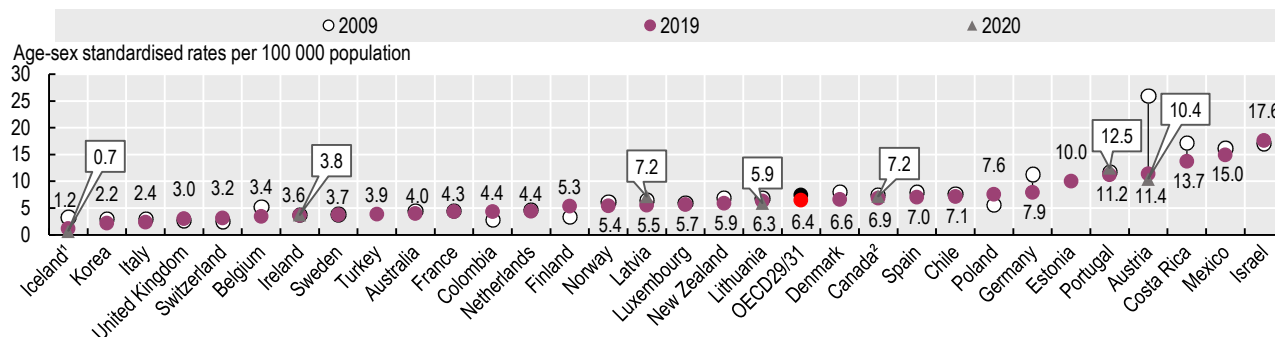
Figure 6.13. People with diabetes prescribed recommended antihypertensive medication in the past year in primary care, 2019 (or nearest year) and 2020



1. 2020 estimate based on provisional 1 April to 30 September data from all jurisdictions except Quebec. 2. Three-year average.
Source: OECD Health Statistics 2021.

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Figure 6.14. Major lower extremity amputation in adults, 2009, 2019 (or nearest year) and 2020



1. Three-year average. 2. 2020 estimate based on provisional 1 April to 30 September data from all jurisdictions except Quebec.
Source: OECD Health Statistics 2021.

StatLink <https://stat.link/vq5pu0>



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