Diabetes care

Effective management of diabetes is a public health priority, with about 537 million adults estimated to be living with the condition worldwide. The significance of prevention and management of diabetes was also highlighted during the COVID-19 pandemic, as the infection is associated with high risks of hospitalisation and mortality among people with diabetes. Deaths due to diabetes continue to increase globally, reaching 6.7 million deaths in 2021. It is projected that by 2045 approximately 783 million adults will have the condition, and taking into account the impact of COVID-19, the burden of diabetes is likely to become even higher (IDF, 2021[1]).

Diabetes is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation, and ongoing control of diabetes usually involves a considerable amount of self-management; therefore, patient-centred care instruction and education are central to primary care of people with diabetes (OECD, 2020[2]). In most cases, hospital admissions for diabetes can be avoided through high quality primary care. In particular, 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 is also important in reducing complications.

Figure 6.11 shows that in 2021 there was a more than 20-fold variation in hospital admissions for diabetes across OECD countries. Japan, Iceland and Italy reported the lowest rates, while the United States reported rates more than twice the OECD average. Prevalence of diabetes, general access to hospital care may explain some of this variation. As seen for other chronic conditions (see section on “Avoidable hospital admissions”), admissions for diabetes fell in nearly all countries both before and during the pandemic. The average decreases across OECD countries were 19% between 2011 and 2019, and 17% between 2019 and 2021. During the pandemic, the reduction was largest in Mexico and Poland, potentially reflecting reduced use of healthcare services across multiple settings.

In individuals living with diabetes and hypertension, angiotensin-converting enzyme inhibitors or angiotensin receptor blockers are recommended in most national guidelines as first-line medications to reduce blood pressure. Figure 6.12 reveals broad consistency in the proportion of patients with diabetes on recommended antihypertensive medications, although Türkiye, the Netherlands and Iceland had rates lower than 80%. Changes in the proportion have remained stable over recent years, and the pandemic also did not seem to have much impact on prescribing patterns for individual living with diabetes, possibly due to expanded use of e-prescriptions (OECD, 2023[3]).

High-quality primary care can reduce the risk of amputations among diabetes patients, and the rate of hospital admissions for major lower extremity amputation reflects the long-term quality of diabetes care. Figure 6.13 shows large international variation in rates of amputation among adults with diabetes, with Iceland, Italy and Korea reporting rates lower than 3 per 100 000 population, while the United States reported a rate higher than 30 per 100 000. Admissions for amputation have decreased in recent years; the average decline was about 10% between 2011 and 2019, while it was smaller – at around 6% – during the pandemic.

The relationship between the nature, frequency and duration of primary care provided for diabetes and the rate of admissions to hospital for related complications is complex, and warrants further research. The OECD’s international survey of patients with chronic conditions including diabetes (www.oecd.org/health/paris.htm), is likely to uncover differences in primary care performance and outcomes of diabetes care across countries.

Definition and comparability

Diabetes hospital admission data are 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. 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 age-standardised to the 2015 OECD population.

Differences in data definition, diagnostic and 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.

The denominator of people with diabetes who are prescribed recommended antihypertensive medication 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 in a specific year. The numerator is the number of people who have one or more prescriptions of an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker.

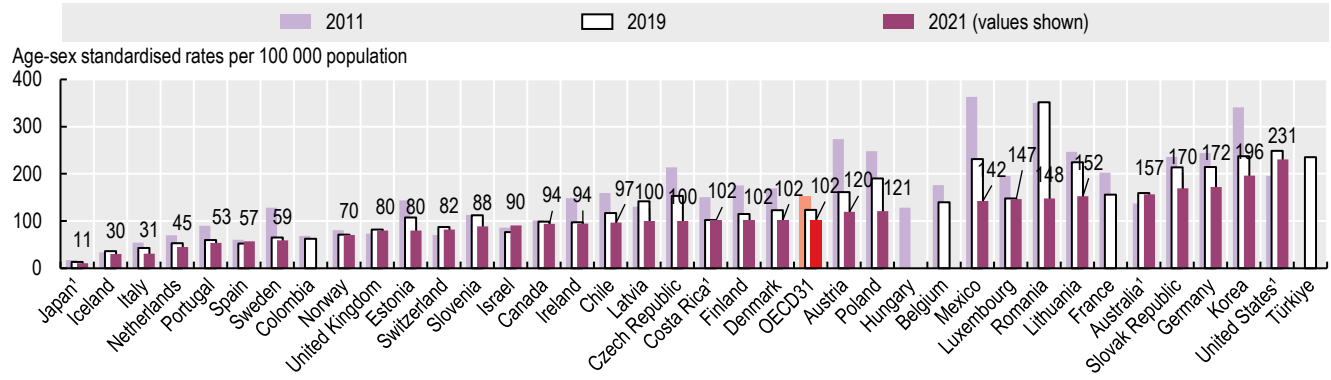
References

IDF (2021), *IDF Diabetes Atlas 2021*, International Diabetes Federation, https://diabetesatlas.org/atlas/tenth-edition/. [1]

OECD (2023), *Ready for the Next Crisis? Investing in Health System Resilience*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/1e53cf80-en. [3]

OECD (2020), *Realising the Potential of Primary Health Care*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/a92adee4-en. [2]

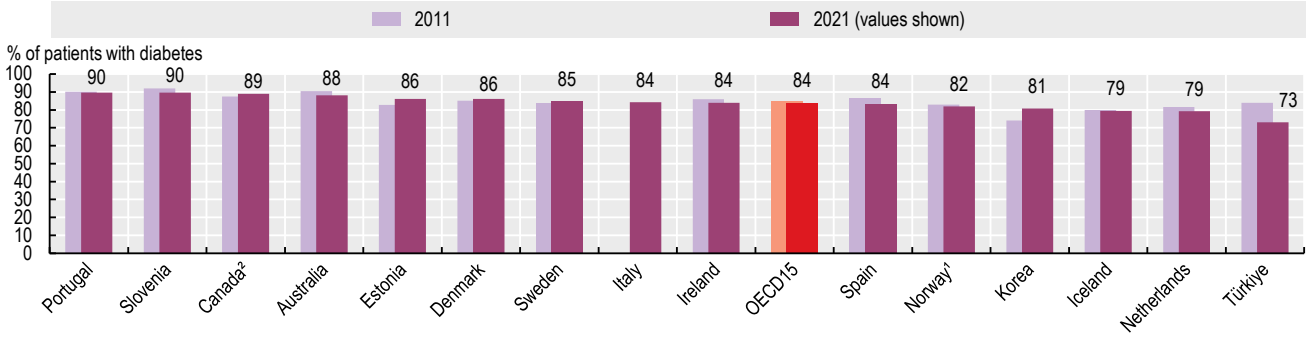
Figure 6.11. Diabetes hospital admissions in adults, 2011, 2019 and 2021(or nearest year)



1. Latest data refer to 2020 (and 2022 for Costa Rica) instead of 2021.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/jz6pqy

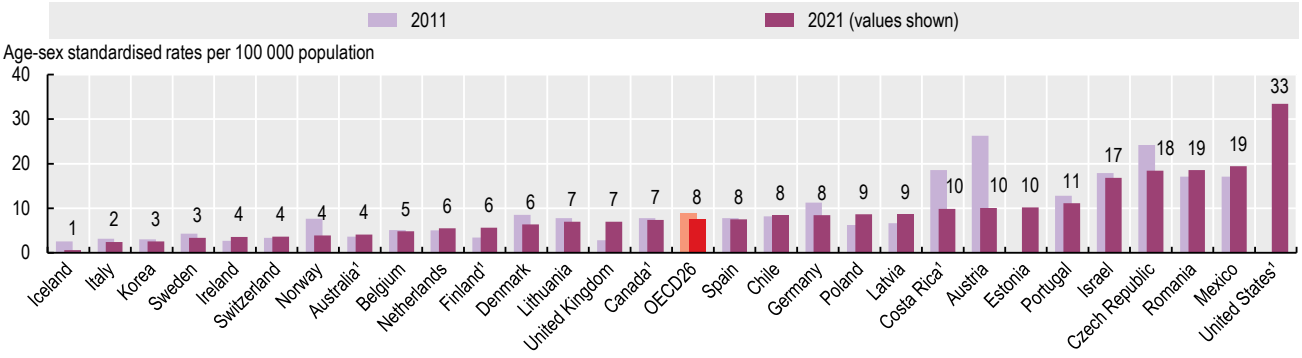
Figure 6.12. People with diabetes prescribed recommended antihypertensive medication, 2011 and 2021 (or nearest year)



1. 2019. 2. Data only from the provinces of British Columbia, Manitoba and Saskatchewan.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/aey2q1

Figure 6.13. Major lower extremity amputation in adults with diabetes, 2011 and 2021 (or nearest year)



1. Latest data for Finland refer to 2019, for Australia and the United States to 2020, and for Costa Rica to 2022 instead of 2021. Data for Canada refer to fiscal year 2019-20.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/6qir29