

Effective management of diabetes remains a public health priority, with over 425 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. It is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation. Diabetes caused 4 million deaths in 2017, and it is projected that by 2045 over 629 million adults will have the condition (IDF, 2017[1]).

Ongoing management of diabetes usually involves a considerable amount of self-care; therefore, advice and education are central to the primary care of people with diabetes (OECD, 2019[2]). 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 (Wolters, Braspenning and Wensing, 2017[3]). Management of other key risk factors such as smoking, blood pressure and lipid levels is also important in reducing complications of diabetes.

Figure 6.12 shows avoidable hospital admissions for diabetes. While admissions have fallen in many countries over time, a more than 5-fold variation in the rates is still evident across countries. Iceland, Italy and Spain report the lowest rates, with Mexico and Korea reporting rates nearly twice the OECD average. Prevalence of diabetes may explain some of this variation. A positive relationship can be demonstrated between overall hospital admissions and admissions for diabetes, providing some indication that access to hospital care can also play a role in explaining international variation (OECD, 2015[4]).

In diabetic individuals with hypertension, angiotensin-converting enzyme inhibitors (ACE-Is) or angiotensin receptor blockers (ARBs) 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 have rates lower than 80%.

Hospital admissions for major lower extremity amputation reflect the long-term quality of diabetes care. Figure 6.14 shows the rates of amputations among adults with diabetes. The international variation is over 20-fold, with Iceland, Italy, Korea and the United Kingdom reporting rates lower than 3 per 100 000 general population and Costa Rica, Israel, Mexico and Austria reporting rates above 13 per 100 000.

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 still not well understood. In its ongoing attempts to contribute to reductions in knowledge gaps, the OECD is working to establish 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 Patient-Reported Indicators Surveys (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 (ACE-I) or angiotensin receptor blocker (ARB).

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.

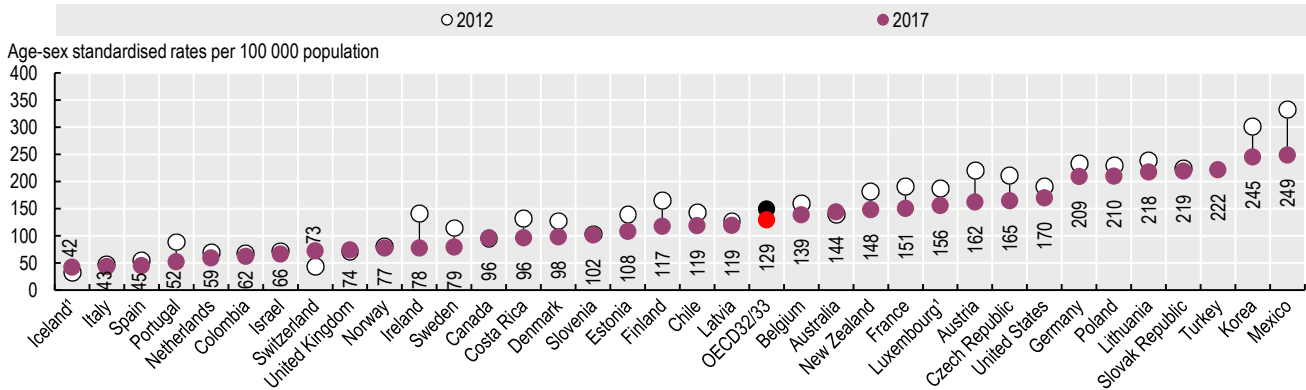
Differences in data definition, coding practices and indicator calculation methods between countries may affect comparability of data. Differences in data coverage of the national hospital sector across countries may also influence indicator rates.

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.

References

- [1] IDF (2017), *IDF Diabetes Atlas Eighth Edition 2017*, International Diabetes Federation, <http://www.diabetesatlas.org>.
- [2] OECD (2019), "Realising the Full Potential of Primary Health Care", OECD, Paris, <http://www.oecd.org/health/health-systems/OECD-Policy-Brief-Primary-Health-Care-May-2019.pdf>.
- [4] OECD (2015), *Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care*, OECD Health Policy Studies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264233010-en>.
- [3] Wolters, R., J. Braspenning and M. Wensing (2017), "Impact of primary care on hospital admission rates for diabetes patients: A systematic review", *Diabetes Research and Clinical Practice*, Vol. 129, pp. 182-196, <http://dx.doi.org/10.1016/j.diabres.2017.05.001>.

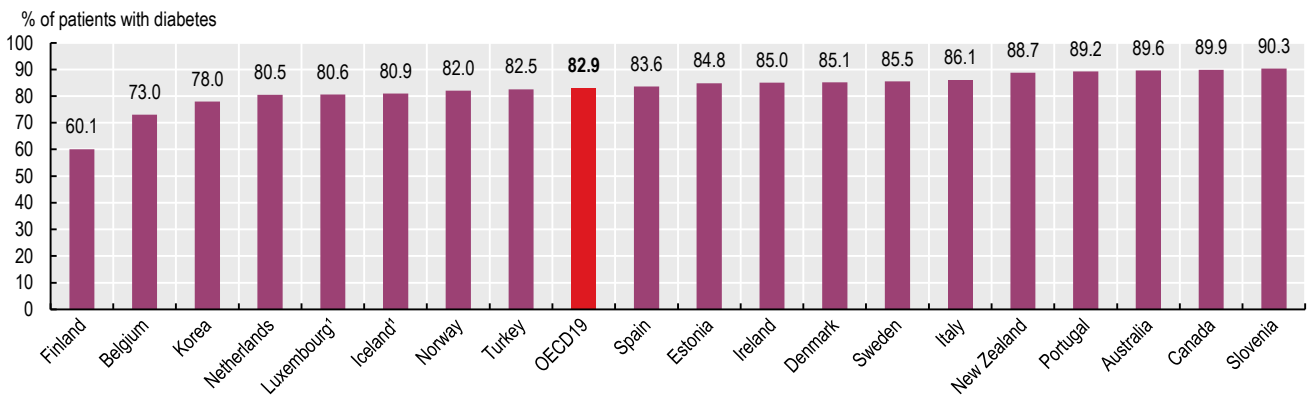
Figure 6.12. Diabetes hospital admission in adults, 2012 and 2017 (or nearest year)



1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink <https://doi.org/10.1787/888934016170>

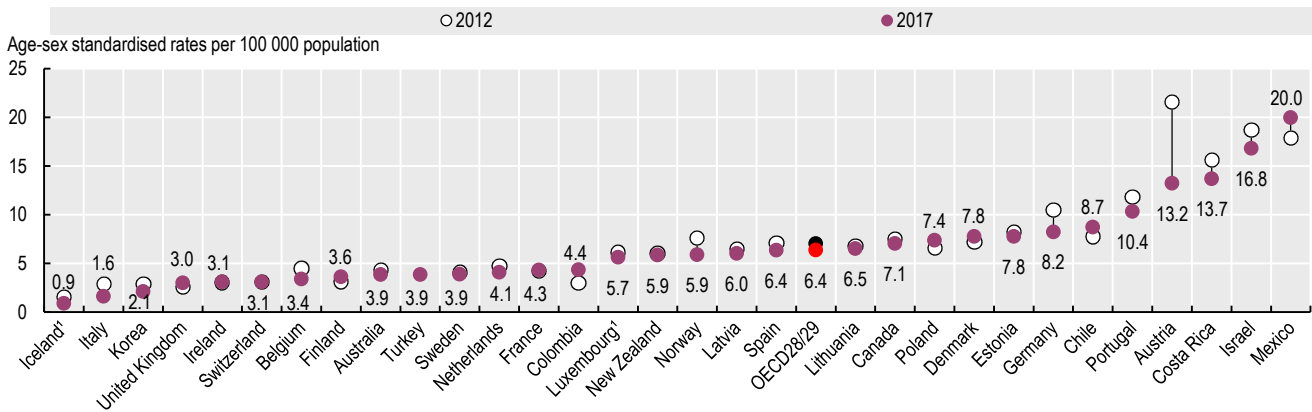
Figure 6.13. People with diabetes prescribed recommended antihypertensive medication in the past year, 2017 (or nearest year)



1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink <https://doi.org/10.1787/888934016189>

Figure 6.14. Major lower extremity amputation in adults with diabetes, 2012 and 2017 (or nearest year)



1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink <https://doi.org/10.1787/888934016208>



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