Australian Government
Australian Institute of Health and Welfare

Incidence of insulin-treated diabetes in Australia, 2017

Data from the National (insulin-treated) Diabetes Register (NDR) show that, in 2017, 29,797 people in Australia began using insulin to treat their diabetes—58% had type 2 diabetes, 30% had gestational diabetes, 9% had type 1 diabetes and 2% had other forms of diabetes or their diabetes status was unknown. Note that these percentages do not sum to 100 due to rounding. For more information about the diabetes types, see the web report *Incidence of Insulin-treated diabetes in Australia 2017*.

Type 1 diabetes

In 2017, 2,742 people were diagnosed with type 1 diabetes—12 cases per 100,000 population, or around 1 in every 8,000 Australians.

The incidence rate was higher in males than in females—14 per 100,000 males compared with 10 per 100,000 females.

1,665 (61%) people diagnosed with type 1 diabetes were aged under 25, with the age of diagnosis peaking among those aged 10–19 (27 cases per 100,000 population).

Incidence rates were relatively similar among Aboriginal and Torres Strait Islander people (13 cases per 100,000 population) compared with non-Indigenous Australians (11 cases per 100,000 population) (Figure 2).

Incidence rates were lower in *Remote and very remote* areas (10 cases per 100,000 population) compared with other areas (11–15 cases per 100,000 population) (Figure 2).

Incidence rates were relatively similar across all socioeconomic groups (Figure 2).

Insulin-treated type 2 diabetes

In 2017, 17,358 people began using insulin to manage type 2 diabetes—4,121 cases per 100,000 population, or around 1 in every 25 registrants with type 2 diabetes.

The incidence rate was 1.6 times higher in females than in males—5,120 per 100,000 females compared with 3,303 per 100,000 males.

Incidence rates for insulin-treated type 2 diabetes were twice as high among those living in *Major cities* (4,259 cases per 100,000 population) compared with those in the *Remote and very remote* areas (2,172 cases per 100,000 population) (Figure 4).

Incidence rates were relatively similar across socioeconomic groups (Figure 4).

Note that the incidence rates were calculated using the total population of people with type 2 diabetes with no record of insulin use on the National Diabetes Services Scheme in the year of analysis.

Time to first insulin use (insulin-treated type 2 diabetes)

From 2012 to 2017, the median time to first insulin use for people with insulin-treated type 2 diabetes remained relatively similar: around 7–8 years after diagnosis. In 2017, around 17% of people with type 2 diabetes began using insulin immediately or shortly after diagnosis (less than a year after diagnosis).

Type 1 diabetes

Figure 1: Incidence of type 1 diabetes, by age at diagnosis and sex, 2017

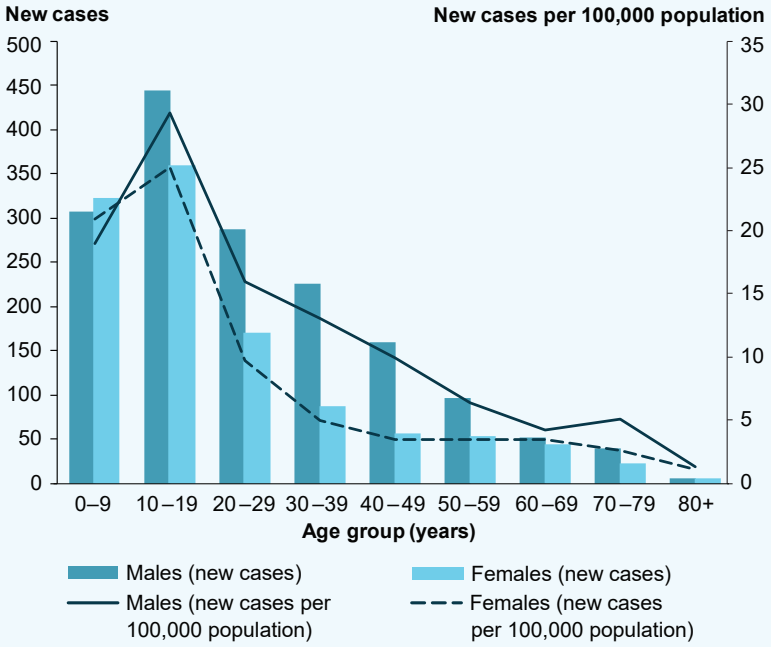
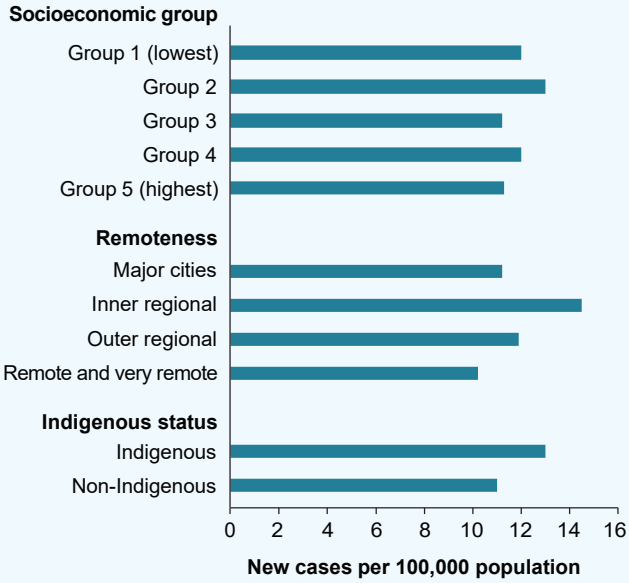


Figure 2: Incidence of type 1 diabetes across population groups, 2017



Insulin-treated type 2 diabetes

Figure 3: Incidence of insulin-treated type 2 diabetes, by age at first insulin use and sex, 2017

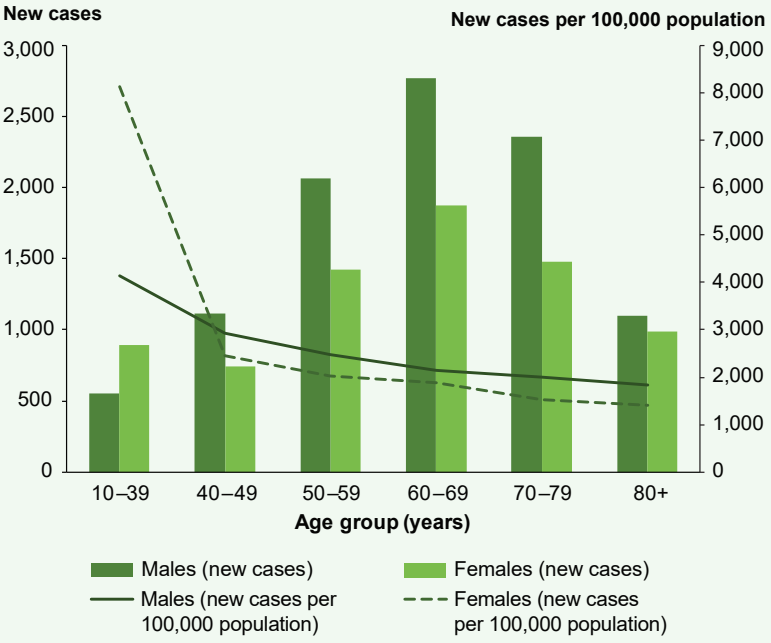
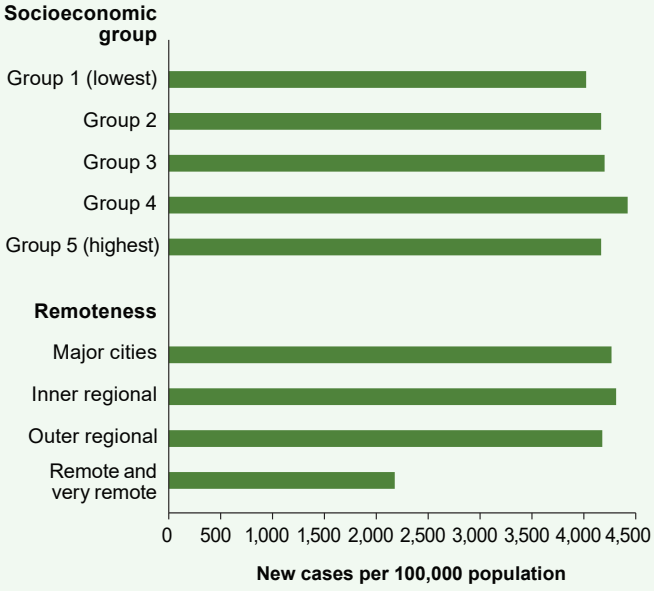


Figure 4: Incidence of insulin-treated type 2 diabetes across population groups, 2017



Notes

1. The NDR is derived from two primary data sources: the National Diabetes Services Scheme (NDSS) and the Australasian Paediatric Endocrine Group (APEG). For more information, see the web report *Incidence of Insulin-treated diabetes in Australia 2017*.
2. The incidence rates of type 1 diabetes shown in figures 1 and 2 were derived using the Australian estimated resident population as the denominator.
3. The incidence rates of insulin-treated type 2 diabetes shown in figures 3 and 4 were derived using the total population of people with type 2 diabetes with no record of insulin use on the NDSS in the year of analysis as the denominator.
4. For figures 2 and 4, rates are age standardised to the 2001 Australian Standard Population.
5. Due to small numbers and concerns about the data quality, age-specific rates for 0–9 years are not presented in Figure 3.
6. Due to concerns with the prevalent Aboriginal and Torres Strait Islander population denominator derived from the NDSS, incidence rates for insulin-treated type 2 diabetes by Indigenous status are not presented in Figure 4. For more information, see the web report *Incidence of Insulin-treated diabetes in Australia 2017*.
7. Socioeconomic classifications in figures 3 and 4 are based on the Index of Relative Socio-Economic Disadvantage, based on the level of disadvantage of the Statistical Area Level 2 of their current residence. Remoteness is classified according to the Australian Statistical Geography Standard 2016, and is based on postcode of usual residence. Incidence rates of insulin-treated diabetes may be influenced by the under-representation of Indigenous Australians and of people living in Remote and very remote areas as captured in the primary data sources of the NDR. For further information, see the NDR 2017 Data Quality Statement.

Source: AIHW analysis of 2017 NDR.