



# Incidence of insulin-treated diabetes, 2020

An estimated 1 in 20 (4.9% or 1.2 million) Australians had diabetes in 2017–18. This estimate is based on self-reported data from the Australian Bureau of Statistics 2017–18 National Health Survey, so it is likely that there are many more Australians who have diabetes but have not been diagnosed.

Many people with diabetes rely on insulin to manage their condition. This fact sheet presents the latest data on new cases of type 1 diabetes and insulin-treated type 2 diabetes for 2020 from the National (insulin-treated) Diabetes Register (NDR).

## What is diabetes?

Diabetes is a chronic condition marked by high levels of glucose (sugar) in the blood. It is caused either by the inability of the body to produce insulin (a hormone made by the pancreas to control blood glucose levels) or by the body not being able to use insulin effectively, or both.

There are 3 main types of diabetes: type 1, type 2 and gestational. All people with type 1 diabetes, and a proportion of people with type 2 and gestational diabetes, will require insulin replacement therapy.

In 2020, COVID-19 impacted the way in which people in Australia accessed healthcare services, however incidence of insulin-treated diabetes was consistent with previous years and across states and territories.

## Type 1 diabetes

In 2020, just under 3,100 people were diagnosed with type 1 diabetes – 13 cases per 100,000 population, or around 1 in every 8,000 Australians. The incidence rate was higher in males than in females (15 per 100,000 males compared with 11 per 100,000 females). Almost six in 10 (1,700) people diagnosed with type 1 diabetes were aged under 25, with the highest incidence rate among those aged 10–14 (35 cases per 100,000 population) (Figure 1).

There were 164 new cases of type 1 diabetes among Aboriginal and Torres Strait Islander people (19 per 100,000 population). After adjusting for differences in the age structures between the populations, the incidence rate was higher among Indigenous Australians compared with non-Indigenous Australians (17 and 12 cases per 100,000 population, respectively).

Incidence rates were lower in *Remote and very remote* areas (9 cases per 100,000 population) than other areas (12–15 cases per 100,000 population). Rates across socioeconomic areas ranged from 11 to 14 cases per 100,000 population.

## Quick facts

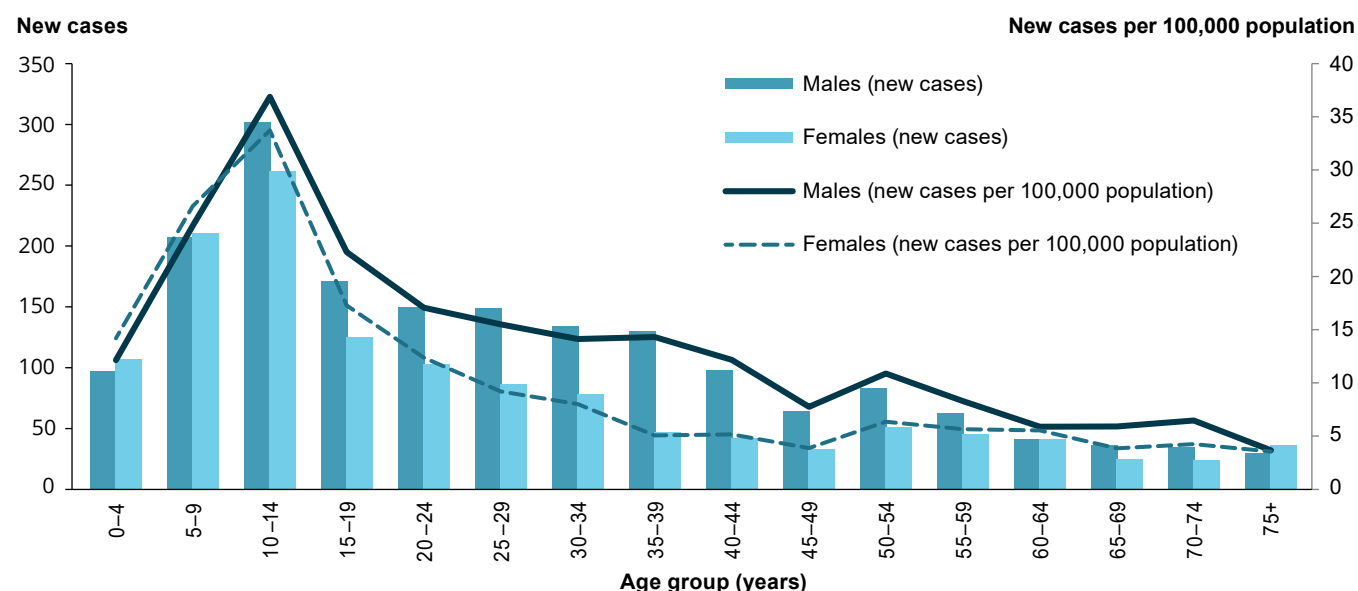
In 2020, **30,800** people began using insulin to treat their diabetes.



Of these:

- **16,000** (52%) had type 2 diabetes
- **10,900** (35%) had gestational diabetes
- **3,100** (10%) were newly diagnosed with type 1 diabetes
- **600** (2.0%) had other forms of diabetes
- for **180** people, the diabetes type was unknown

**Figure 1: Incidence of type 1 diabetes, by age at diagnosis and sex, 2020**

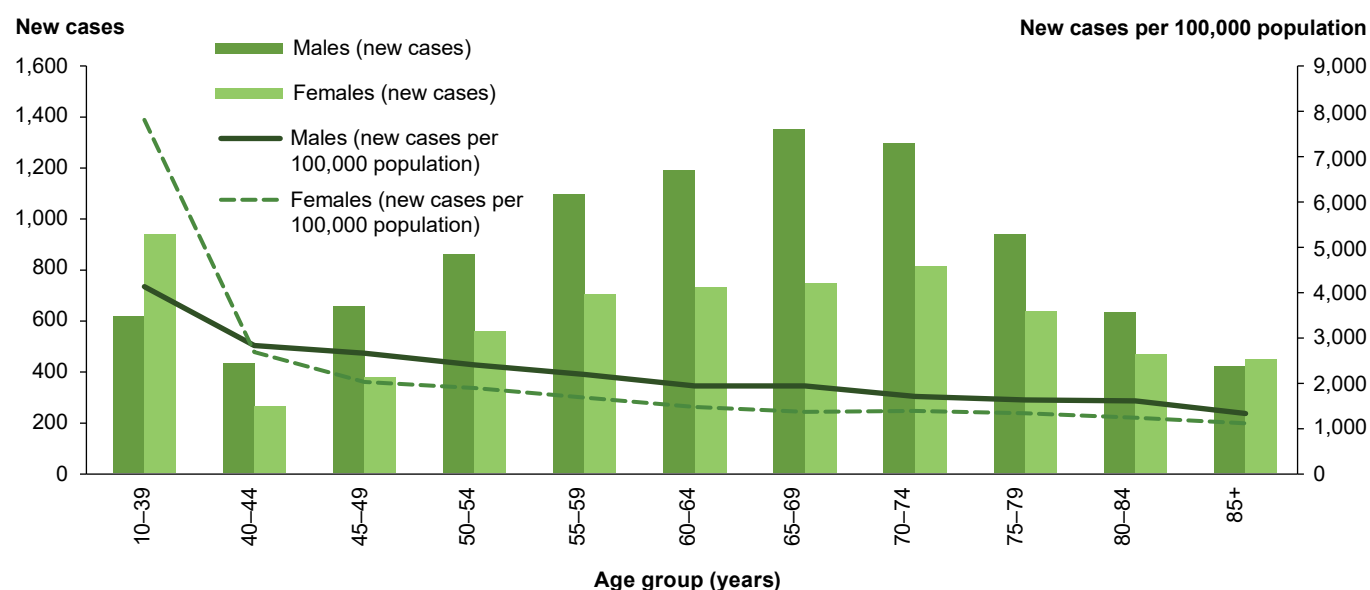


## Insulin-treated type 2 diabetes

In 2020, 16,000 people began using insulin to manage their type 2 diabetes for the first time – around 1 in every 26 people (or 3,900 cases per 100,000) with type 2 diabetes who previously were not using insulin (Figure 2). The uptake of insulin use by people with Type 2 diabetes is reported as a proportion of the estimated Type 2 diabetic population as they are the population at risk.

The incidence rate was 1.5 times higher in females than in males – 4,800 per 100,000 females with type 2 diabetes compared with 3,200 per 100,000 males with type 2 diabetes – and twice as high among those living in *Major cities* compared with those in *Remote and very remote* areas (4,000 and 2,300 cases per 100,000 people with type 2 diabetes, respectively). Incidence rates across socioeconomic areas ranged from 3,800 to 4,000 cases per 100,000 people with type 2 diabetes not previously using insulin.

**Figure 2: Incidence of insulin-treated type 2 diabetes, by age at first insulin use and sex, 2020**



The high rate in females aged 10-39 years might be due in part to misclassification of gestational diabetes.

For more information, see the [Incidence of insulin-treated diabetes in Australia data tables](#) and the [NDR data quality statement](#).