

# **National Diabetes Register**

**Statistical profile, December 2001**

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# **National Diabetes Register**

**Statistical Profile, December 2001**

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# Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
APEG	Australasian Paediatric Endocrine Group
DA	Diabetes Australia
DoHA	Department of Health and Ageing
GDM	Gestational diabetes mellitus
ICD-10	International Classification of Diseases, 10th revision
ITDM	Insulin-treated diabetes mellitus
MACOD	Ministerial Advisory Committee on Diabetes
Menzies Centre	Menzies Centre for Population Health in Tasmania
NDI	National Death Index
NDR	National Diabetes Register
NDSS	National Diabetes Services Scheme
Register	National Diabetes Register
TITDR	Tasmanian Insulin Treated Diabetes Register
WHO	World Health Organization

# Symbols

..	Not available
n.a.	Not applicable
—	Rounded to zero

# Executive summary

The *National Diabetes Register: Statistical Profile, December 2001* is the second annual statistical report on the National Diabetes Register (NDR).

The Register holds information on people with insulin-treated diabetes who started using insulin since January 1999. People who started using insulin before January 1999 and people with non-insulin-treated diabetes are not included in this Register.

The Register provides information that will assist planners of diabetes services as well as providing a reference point for diabetes researchers wishing to access the Register for epidemiological studies.

Between 1 January 1999 and 31 December 2001, the main features of the NDR were:

## ***Insulin-treated diabetes in males and females***

- 22,575 people began to use insulin, and consented to be on the register (Table 2.4).
- There were slightly more males than females on the Register (11,462 males and 11,113 females).
- The sex ratio varied with age. For ages less than 25 years the numbers for males and females were similar. For ages 25–44 there were more females than males, largely due to the number of women with gestational diabetes in that age group.

## ***Diabetes type of persons with insulin-treated diabetes***

- 60.3% of registrants were found to have Type 2 diabetes; 29.3% Type 1 diabetes and 7.3% gestational diabetes (Table 2.4).
- A fifth of all registrants (4,548) had Type 1 diabetes and were aged less than 40 years (Table 3.1).

## ***Age distributions of registrants***

- 61.8% of registrants were aged over 45 years; 4.9% were aged less than 10 years, 4.8% aged 10–14 and 28.5% 15–44 years (Table 2.1).

## ***Commencement of insulin use***

- 50.5% of those aged 0–39 years at diagnosis and reporting Type 1 diabetes began to use insulin before the age of 15 years (Table 3.1).
- The majority of those reporting Type 2 diabetes commenced insulin use after 50 years of age (78.4%) (Table 4.1).

## ***Incidence of Type 1 diabetes among children 0–14 years***

- In 2000 and 2001, 1,565 new cases of Type 1 diabetes among children 0–14 years were recorded on the register, an average annual rate of 20 new cases per 100,000 population for boys and 19 per 100,000 for girls (Table 3.4). Rates were similar across states and territories.
- In 2000, Australia was among the countries with moderate to high incidence of Type 1 diabetes for children aged 0–14 years (Table 3.6). The rate was similar to those experienced in Canada and the United Kingdom, well below Finland (45 cases per 100,000), but much higher than in Middle Eastern and Asian countries.

### ***Deaths***

- Of the 22,575 NDR registrants between 1999 and 2001, 1,229 (5.4%) were identified as having died during the period (Table 2.5).
- Deaths largely occurred among older persons—80.0% of male deaths and 83.2% of female deaths occurred in persons aged 60 years or more (Table 5.1).
- For registrants who died in their first year of insulin use, death rates were three and a half times that of the general community (Table 5.2). For registrants who died in their second or third year of insulin use, death rates decreased to just over two times higher than in the Australian community.
- Malignant neoplasms (cancers) were the most commonly reported underlying cause of death (44.5%) among persons with insulin-treated diabetes (Table 5.3).
- The next most common underlying cause of death was diseases of the circulatory system, responsible for 24.9% of male deaths and 26.3% of female deaths.
- Given the elderly age profile of the persons who died and the relatively short period of time between insulin commencement and deaths, the high rate of cancer and circulatory disease deaths suggests that these are persons with chronic illnesses which include diabetes, and insulin use is likely to be one of a number of treatments they are undergoing during the last 12 to 36 months before death.
- Diabetes mellitus was the underlying cause for 9.9% of male deaths and 12.0% of female deaths (Table 5.3). In 38.2% of male deaths and 46.9% of female deaths, diabetes was mentioned as either an underlying or secondary cause of death on the death certificate.

### ***Geographical coverage***

- There were 45.5 age-standardised NDR registrations per 100,000 population in remote areas during 1999–2001, compared with 37.4 per 100,000 population nationally, despite lower National Diabetes Services Scheme coverage in remote areas (Table 2.2).
- The age-standardised rate of registrations per 100,000 population in capital cities and small rural centres was 36.9 and 40.0 respectively.
- Among the states and territories, age-standardised registrations per 100,000 population were relatively low in South Australia in 2001 (24.3) because of low ascertainment and relatively high in Western Australia (43.9) because of high ascertainment.

### ***Indigenous status***

- Just over 2% of registrants reported being of Aboriginal or Torres Strait Islander origin (Table 2.6). This proportion is much higher in the Northern Territory at 39%. These proportions are likely to be under-estimated as Indigenous identification is incomplete in the Register.

