



3.6 Stroke

Stroke occurs when an artery supplying blood to the brain either suddenly becomes blocked (known as ischaemic stroke) or ruptures and begins to bleed (known as haemorrhagic stroke). Either may result in part of the brain dying, leading to sudden impairment of a range of functions. Stroke often causes paralysis of parts of the body normally controlled by the area of the brain affected by the stroke, or speech problems and other symptoms, such as difficulties with swallowing, vision and thinking.

Stroke is largely preventable because many of its risk factors are modifiable, such as high blood pressure, physical inactivity, abdominal overweight and obesity and tobacco smoking (see 'Chapter 4 Determinants of health').

How common is stroke?

- In 2012, an estimated 377,000 people (2% of Australians—206,000 males and 171,000 females)—had had a stroke at some time in their lives, based on self-reported data. Most (71%) were aged 65 and over. While the overall prevalence of stroke has remained similar over the last 15 years at 1.5–2%, the proportion of people who had a disability resulting from stroke fell from 45% to 39% between 1998 and 2012.
- The rate of stroke events, based on hospital and mortality data, fell by 27% between 2000 and 2013 (from an age-standardised rate of 176 to 128 per 100,000 population). In 2013, there were an estimated 34,300 stroke events—almost 100 every day.

Health care

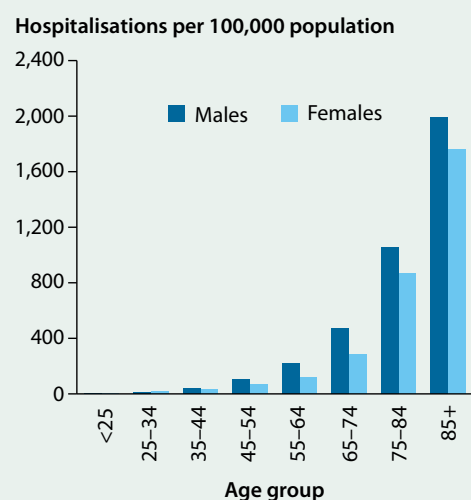
- In 2013–14, there were 37,000 hospitalisations for acute care of stroke and 28,000 hospitalisations for rehabilitation care for stroke. The average length of stay in acute hospital care was 8 days, and in rehabilitation care, 14 days.
- Stroke hospitalisation rates were more common among males than females (1.3 times as high) and most occurred among those aged 75 and over (Figure 3.6.1).
- Between 2003–04 and 2013–14, stroke hospitalisation rates fell by 15% (from an age-standardised rate of 163 to 138 per 100,000 population).
- Dedicated stroke units in hospitals significantly improve the health outcomes of patients. Two-thirds (67%) of patients accessed stroke units in 2015. The number of beds for patients with acute stroke increased from 429 to 648 between 2007 and 2015 (National Stroke Foundation 2015).
- Informal carers, such as family members, play an important role in the care of stroke survivors. In 2012, there were around 70,400 stroke-affected recipients of care whose primary carer lived in the same household.



Deaths

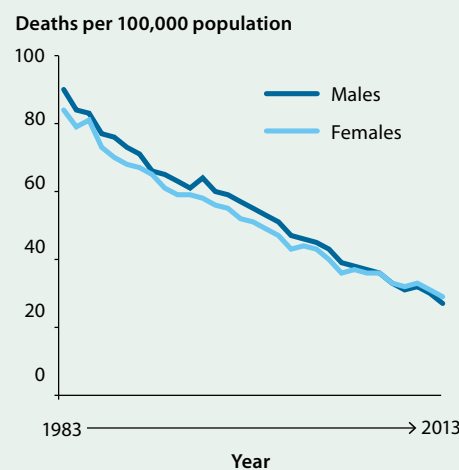
- In 2013, there were 8,100 deaths with stroke recorded as the underlying cause, accounting for 5% of all deaths in Australia.
- Stroke death rates were similar among males and females (with age-standardised rates of 27 and 29 deaths per 100,000 population, respectively); however, more females (4,900) than males (3,200) died, largely reflecting the higher proportion of older women.
- Over the last three decades, stroke death rates have fallen by 70% for males (from 90 to 27 per 100,000 population) and 65% for females (from 84 to 29 per 100,000 population) (Figure 3.6.2). These declines have been driven by improvements in key risk factors for stroke (in particular, high blood pressure and smoking); progress in medical treatment and other advances in medical care; and increasing access to dedicated stroke units in hospitals and the high level of care received there.
- Stroke is commonly associated with other diseases, in particular other cardiovascular diseases. In 2013, where cerebrovascular disease (predominantly stroke) was listed as the underlying cause of death, common associated causes of death included hypertensive diseases (29%), dementia and Alzheimer disease (19%) and coronary heart disease (11%).

Figure 3.6.1: Hospitalisations with a principal diagnosis of stroke, by age and sex, 2013–14



Source: AIHW National Hospital Morbidity Database.

Figure 3.6.2: Stroke death rates, by sex, 1983 to 2013



Note: Rates have been age-standardised to the 2001 Australian population.

Source: AIHW National Mortality Database.

Variations among population groups

- The burden of stroke is greater among Aboriginal and Torres Strait Islander people— hospitalisation and mortality rates for stroke for Indigenous Australians were 2 and 1.4 times as high as for non-Indigenous Australians, respectively.



- People living in the lowest socioeconomic areas also had higher rates of stroke—the prevalence of self-reported stroke was over twice as high and death rates were 1.4 times as high as for people living in the highest socioeconomic areas.

What is missing from the picture?

Currently, there is no comprehensive national monitoring of new cases of stroke. Increased collection and more frequent reporting of data would help inform planning and policy and provide an improved picture of the quality of stroke care in Australian hospitals.

Where do I go for more information?

The following reports can be downloaded for free: the *Cardiovascular disease, diabetes and chronic kidney disease—Australian facts series* ([Mortality](#); [Prevalence and incidence](#); [Morbidity—hospital care](#); [Risk factors](#); [Aboriginal and Torres Strait Islander people](#)) and [Stroke and its management in Australia: an update](#).

Reference

National Stroke Foundation 2015. National Stroke Audit—Acute Services Report 2015. Melbourne: National Stroke Foundation.