



## 3.7 Stroke

Stroke occurs when a blood vessel supplying blood to the brain either suddenly becomes blocked (known as an ischaemic stroke) or ruptures and begins to bleed (known as a haemorrhagic stroke). Either may result in part of the brain dying, leading to sudden impairment that can affect a number 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 often preventable because many of its risk factors are modifiable. These include high blood pressure, physical inactivity, overweight and obesity, and tobacco smoking (see Chapter 4 for more information on determinants of health).

### How common is stroke?

In 2015, an estimated 394,000 people—199,000 males and 195,000 females—had had a stroke at some time in their lives, based on self-reported data from the Australian Bureau of Statistics 2015 Survey of Disability, Ageing and Carers (ABS 2016). The estimated prevalence of stroke (1.7% of Australians) has remained similar between 2003 and 2015.

The proportion of people who had disability resulting from stroke also remained similar over the period (2003–2015), at around 40%.

In 2015, there were around 36,700 stroke events—around 100 every day. The rate of these events, based on hospital and mortality data, fell by 26% between 2000 and 2015, from an age-standardised rate of 176 to 130 per 100,000 population (Supplementary Table S3.7.1).

### Impact

#### Burden of disease

In 2011, stroke accounted for 3.0% of the total burden of disease in Australia and was the eighth leading specific cause of disease burden.

Stroke was the third highest disease burden in people aged 85 and over, accounting for 7.5% of the burden in men and 9.4% of the burden in women.

#### Deaths

In 2016, there were 8,200 deaths with stroke recorded as the underlying cause, accounting for 5.2% of all deaths in Australia.

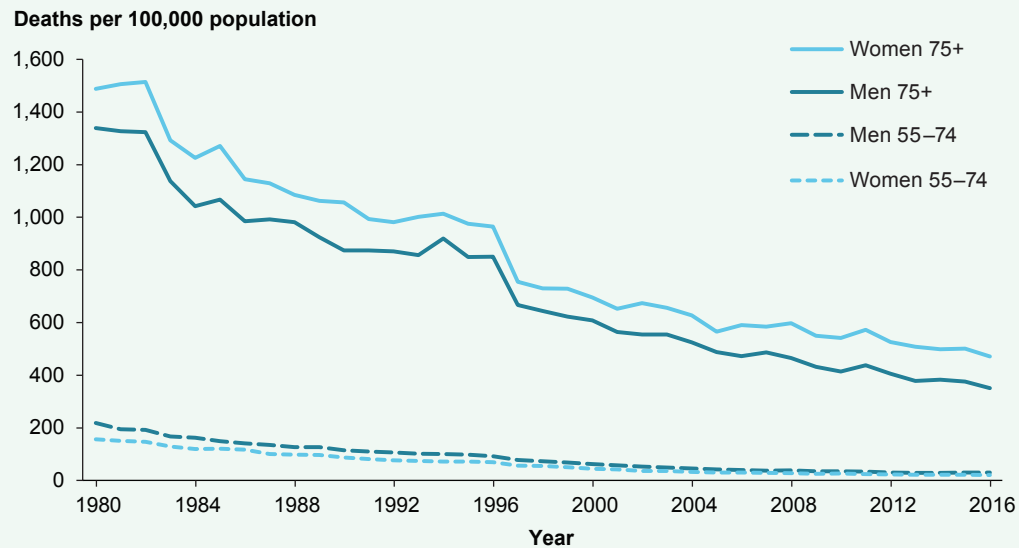
Between 1980 and 2016, overall death rates for stroke have fallen by three-quarters (74%), or 3.7% per year (Supplementary Table S3.7.2).

The rate of decline has remained steady in people aged 75 and over but slowed among younger age groups (Figure 3.7.1).





Figure 3.7.1: Stroke death rates, people aged 55 and over, by age and sex, 1980–2016



Source: National Mortality Database; Table S3.7.3.

## Treatment and management of stroke

### Hospitalisations




In 2015–16, there were 37,300 acute care hospitalisations with a principal diagnosis of stroke (Supplementary Table S3.7.4), at a rate of 134 per 100,000 population. Hospitalisation rates were higher among males than females (1.4 times as high), and most hospitalisations (72%) were for people aged 65 and over (Supplementary Table S3.7.4).

The average length of stay for stroke patients in acute hospital care was 8 days in 2015–16. Stroke patients in rehabilitation care had an average length of stay of 26 days.

### Variation by population group

The impact of stroke varies among population groups, with rates being 1.5 to 2.3 times as high among Aboriginal and Torres Strait Islander people as among non-Indigenous Australians. Death rates and burden of disease were similar in *Remote and Very remote* areas compared with *Major cities*. Hospitalisation rates for stroke were 1.3 times higher in *Remote and Very remote* areas compared with *Major cities*. The impact of stroke was 1.2 to 1.4 times as high in the lowest socioeconomic areas compared with the highest.



Comparing rates for:	 Indigenous / non-Indigenous	 Remote and Very remote / Major cities	 Lowest / highest socioeconomic areas
Being hospitalised for stroke	1.7x	1.3x	1.3x
Dying from stroke	1.5x	Similar	1.2x
Burden of disease (DALYs)	2.3x	Similar ( <i>Remote</i> ) / Similar ( <i>Very remote</i> )	1.4x

## What is missing from the picture?

Currently, there is no comprehensive national monitoring of new cases of stroke. Only stroke events that result in hospitalisation or death can be monitored, although this includes most strokes.

National data on stroke treatment and care responses such as time to treatment and medicine usage can further enhance stroke monitoring. Data linkage can also improve the understanding of patient outcomes and their pathways through the health system.

## Where do I go for more information?

More information on stroke is available at [www.aihw.gov.au/reports-statistics/health-conditions-disability-deaths/heart-stroke-vascular-diseases/overview](http://www.aihw.gov.au/reports-statistics/health-conditions-disability-deaths/heart-stroke-vascular-diseases/overview).

The following reports are available for free download on the AIHW website:

[Cardiovascular health compendium](#) and [Trends in cardiovascular deaths](#).

## References

ABS (Australian Bureau of Statistics) 2016. Microdata: Disability, Ageing and Carers, Australia, 2015. ABS cat. no. 4430.0.30.002. Canberra: ABS. AIHW analysis of Expanded Confidentialised Unit Record File, DataLab.