



Pedal cyclist deaths and hospitalisations 1999–00 to 2015–16

This fact sheet highlights some key findings from the *Pedal cyclist deaths and hospitalisations 1999–00 to 2015–16* report. It includes fatal and hospitalised cases due to crashes, both on-road and off-road, in Australia.

Quick facts

In 2015–16:

- 12,000 pedal cyclists were hospitalised—this was 1 in 5 of the 60,000 people hospitalised after being injured in a land transport crash.

From 1999–00 to 2015–16:

- 651 cyclists died—an average of 38 deaths a year.
- Of cyclists who died, 3 in 4 were aged 25 and over, and 9 in 10 were male.
- Nearly 160,000 cyclists were hospitalised—an average of over 9,000 each year.
- The proportion of hospitalised cyclists aged 25 and over rose, while the proportion aged under 25 fell.
- While rates of hospitalisation rose for pedal cyclists and motorcyclists, they fell for motor vehicle occupants and pedestrians.

Deaths

Annual numbers of pedal cyclist injury deaths are low and fluctuate, so it is preferable to rely on annual averages derived from cases that occurred over a longer period.

In the 17 years from 1999–00 to 2015–16, 651 pedal cyclists died in cycling crashes—an average of about 38 deaths per year. Of these fatally injured cyclists:

- nearly 9 in 10 were male
- nearly 8 in 10 were aged 25 or over
- half involved a person aged 45 or over
- 90% were the result of an on-road crash.

During the 3 years from 2013–14 to 2015–16, in nearly half of cyclist deaths (48%), the head and neck was the main area injured. In about 4 in 10 deaths, the cyclist had sustained injuries to multiple parts of their body (38%).

There was no statistically significant change over time in the rate of pedal cyclist injury deaths between 1999–00 and 2015–16.

Hospitalised injuries

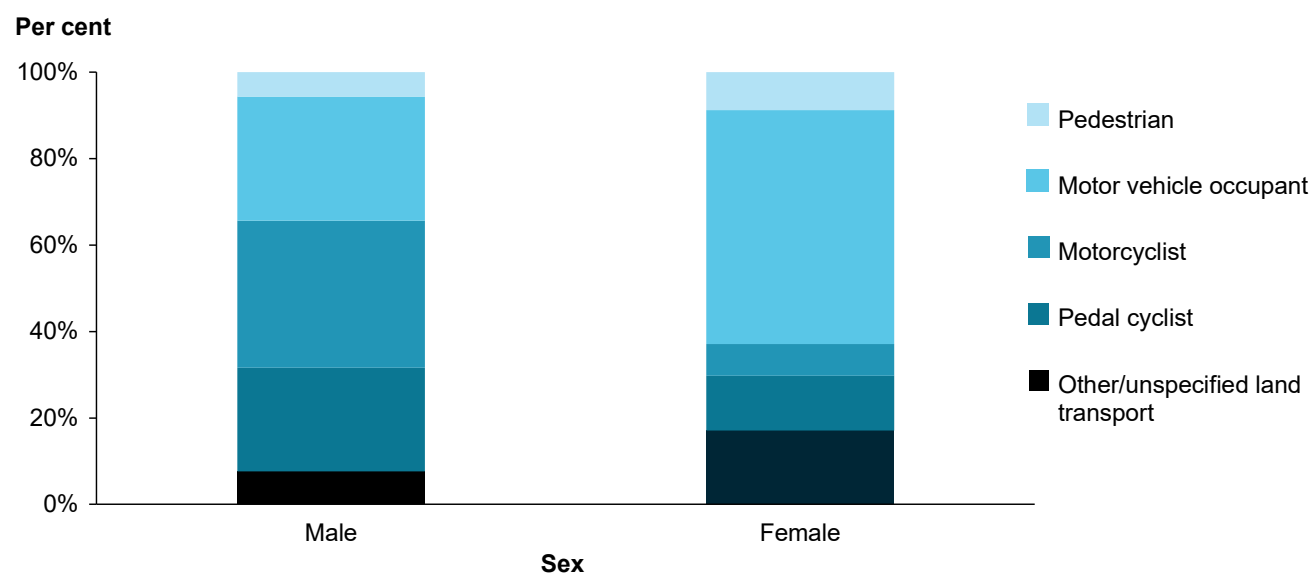
Pedal cyclists and other types of land transport user

Males were more likely than females to be hospitalised from a cycling crash. In 2015–16, nearly 1 in 4 males hospitalised after a land transport crash were cyclists, compared with 1 in 8 females (Figure 1).

The proportion of land transport hospitalisations that involved pedal cyclists varied according to age. In 2015–16, pedal cyclists were most prominent among land transport crashes involving children aged up to 14 (about 4 in 10 cases). Pedal cyclists amounted to over one-fifth of hospitalisations from land transport crashes at ages 45–64.

In 2015–16, on average, cyclists injured in a crash spent fewer days in hospital than other people involved in land transport crashes—2.3 days for cyclists compared with 3.7 for occupants of motor vehicles, 3.8 for motorcyclists and 5.6 for pedestrians.

Figure 1: All hospitalised cases of land transport injury by sex, 2015–16



Hospitalisation rates rose for cyclists, but fell for other road users

The overall rate of hospitalisation due to pedal cyclist injury rose between 1999–00 and 2015–16, though year-to-year fluctuations were present. The trend for the whole period shows an average rate rise of 1.5% per year, though this rise was faster over the more recent 6-year period (an average increase of 4.4% per year).

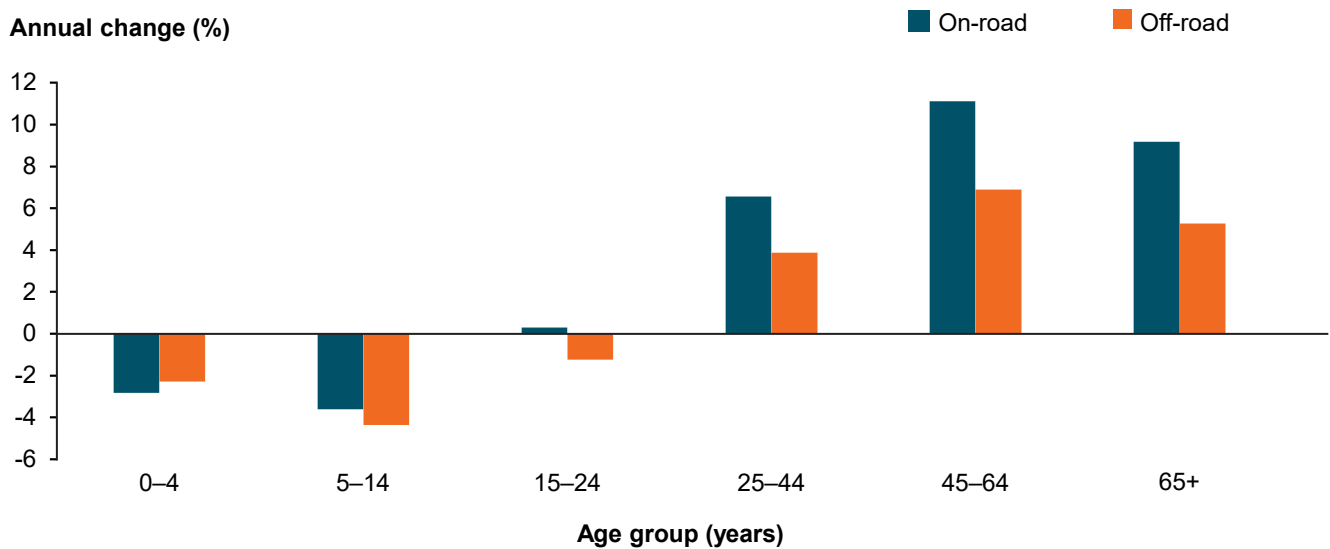
This pattern differs from that for motor vehicle occupants, which fell by 1.3% per year, and for pedestrians, which fell by 2.2% per year.

While the hospitalisation rates of pedal cyclists for on-road and off-road crashes fluctuated over the 17 years, both rates recorded similar increases since 2010–11, of 4.7% per year for on-road and 4.3% for off-road.

Figure 2 summarises trends over time in hospitalisation of pedal cyclists by age. There was a decline in annual average rates in the 3 youngest age groups, and a comparatively greater increase in rates in the 3 oldest age groups (Figure 2).

Annual average changes in rates differed according to whether the crashes occurred on-road or off-road. In the older age groups, these differences were substantial (Figure 2). In the 3 younger age groups, the change differed little between on-road and off-road cases.

Figure 2: Annual change in age-adjusted rates of pedal cyclist injury hospitalisation, by age and on-road/off-road status, 1999–00 to 2015–16



What types of injuries were sustained by different types of land transport user?

While fractures were the most common type of injury for all hospitalised land transport users, the prominence of this type of injury varied between transport user groups (Table 1).

For nearly 6 in 10 pedal cyclists (55%) and motorcyclists (57%), a fracture was the major injury, compared with 3 in 10 motor vehicle occupants (31%).

Pedestrians had the highest proportion of intracranial injury (11%), but the proportion for pedal cyclists was only slightly lower (8%). The lowest proportion of intracranial injuries was for motorcyclists (6%).

The proportion of pedal cyclists who were hospitalised for a superficial or soft tissue injury (11%) was half that for motor vehicle occupants (23%).

Table 1: Nature of injury by land transport user type

Land transport user type	Type of injury (Principal diagnosis)				
	Fracture	Open wound	Intracranial injury	Superficial soft tissue	Other injury
Pedal cyclist	55%	12%	8%	11%	15%
Motorcyclist	57%	9%	6%	12%	15%
Motor vehicle occupant	31%	8%	7%	23%	31%
Pedestrian	45%	11%	11%	16%	18%
Other/unspecified	50%	5%	10%	13%	22%



Nearly 6 in 10 hospitalised cyclists sustained a fracture

Fractures were the most common type of injury (55%) sustained by cyclists of all ages, and were most likely to occur among hospitalised cyclists aged 45–64 (61%).

Of all cyclists who sustained a fracture, 6 in 10 fractured an upper limb. The highest proportion of upper limb fractures was among those aged 5–14 (78%), and the highest proportion of head and neck fractures was among those aged 0–4 (21%).

More older cyclists were hospitalised

Two Australian participation surveys of people aged 15 and over found a large increase in cycling among older adults since 2001, while participation fell or rose only slightly in younger age groups.

Consistent with these findings, the age profile of cyclists who were hospitalised after a crash has changed since 1999–00—in more recent years, more were aged 25 and over, and fewer were aged under 25.

Older cyclists had more severe injuries

The severity of injuries sustained by cyclists generally increased with age. Compared with cyclists aged under 45, those aged 45 and over:

- were more likely to have life-threatening injuries
- stayed longer in hospital
- were more likely to be transferred to another hospital.

In severe cases, injured cyclists might need to be put on a ventilator to help them breathe. In 2015–16, cyclists required about 15,000 hours of continuous ventilatory support. Cyclists aged 45 or older used 90% of the total hours of ventilatory support, with more than half provided to those aged 45–64.

More information

For more information, see the full report *Pedal cyclist deaths and hospitalisations, 1999–00 to 2015–16*.

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