Road traffic injury mortality

This surveillance report presents an analysis of the most recent data on deaths caused by road traffic injuries in Aotearoa New Zealand. The first section of the report covers data from the Ministry of Transport's annual road toll statistics (1990–2024). The remainder of the report focuses on more detailed data from the New Zealand Mortality Collection (2001–2021), provided to EHINZ by Health New Zealand – Te Whatu Ora in December 2025.

Key facts

- In 2024, there were 292 traffic-related fatalities in New Zealand, down from 342 in 2023.
- In 2019–21, mortality rates were highest for males (especially those aged 15–24 and 85 years and over), Māori, older adults, people living in more socioeconomically deprived areas and those living outside major urban areas.
- In terms of deaths per time spent travelling, motorcyclists were at more than 35-times greater risk of death compared to non-motorcyclists.
- In 2017–21, Northland and Tairāwhiti districts had high traffic injury mortality rates.

The health impact of road traffic accidents

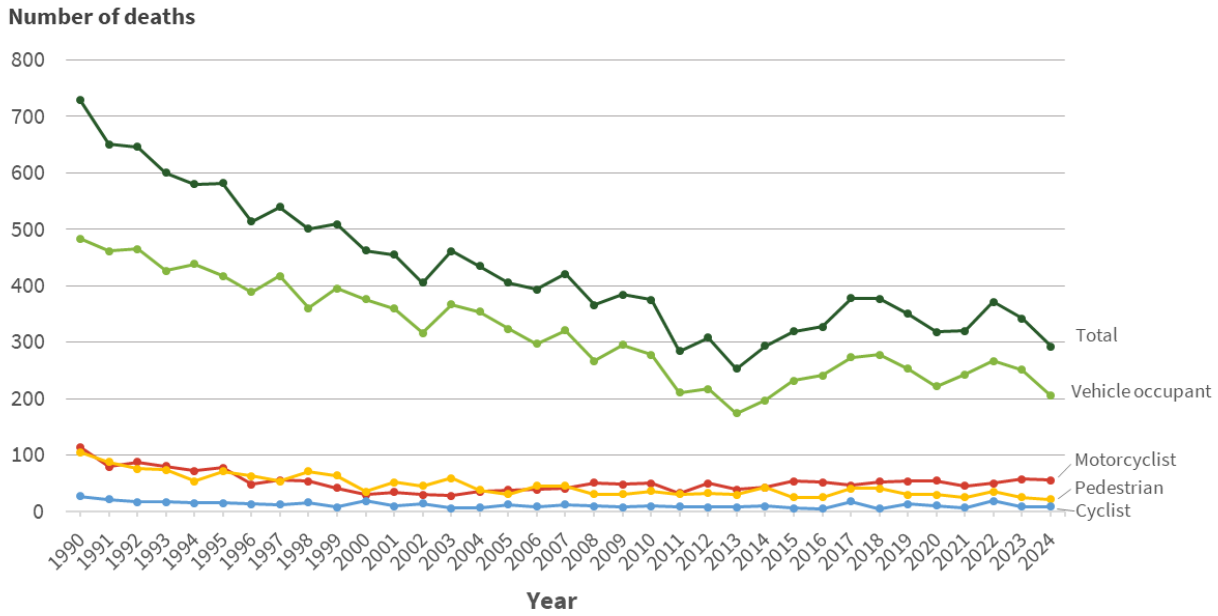
Traffic-related deaths and injuries are the main health impact of road transport in New Zealand (Briggs et al 2016). Traffic injuries may affect all types of road users, though pedestrians, cyclists and motorcyclists are particularly vulnerable as they tend to suffer more severe injuries from collisions due to a lack of personal protection. By comparison, vehicle occupants are protected by the vehicle body and fitted safety features (such as seatbelts or airbags). Vehicle occupant injury may be related to speed, vehicle type and the age of the vehicle, as newer models often have more and better safety features. See the 'Age of motor vehicles' surveillance report for more information on the age of the vehicle fleet.

The road toll increased after decreases during COVID-19-affected years

In 2024, there were 292 road deaths due to traffic injuries (Figure 1). Of the 292 deaths, 205 were vehicle occupants (70%), 56 were motorcyclists (19%), 22 were pedestrians (8%) and 9 were cyclists (3%).

The road toll decreased from 1990 (729 deaths) to 2013 (253 deaths). Since then, there have been periods of increase and decrease, with a downward trend in the most recent two years.

Figure 1: Annual road toll, by mode of transport, 1990–2024



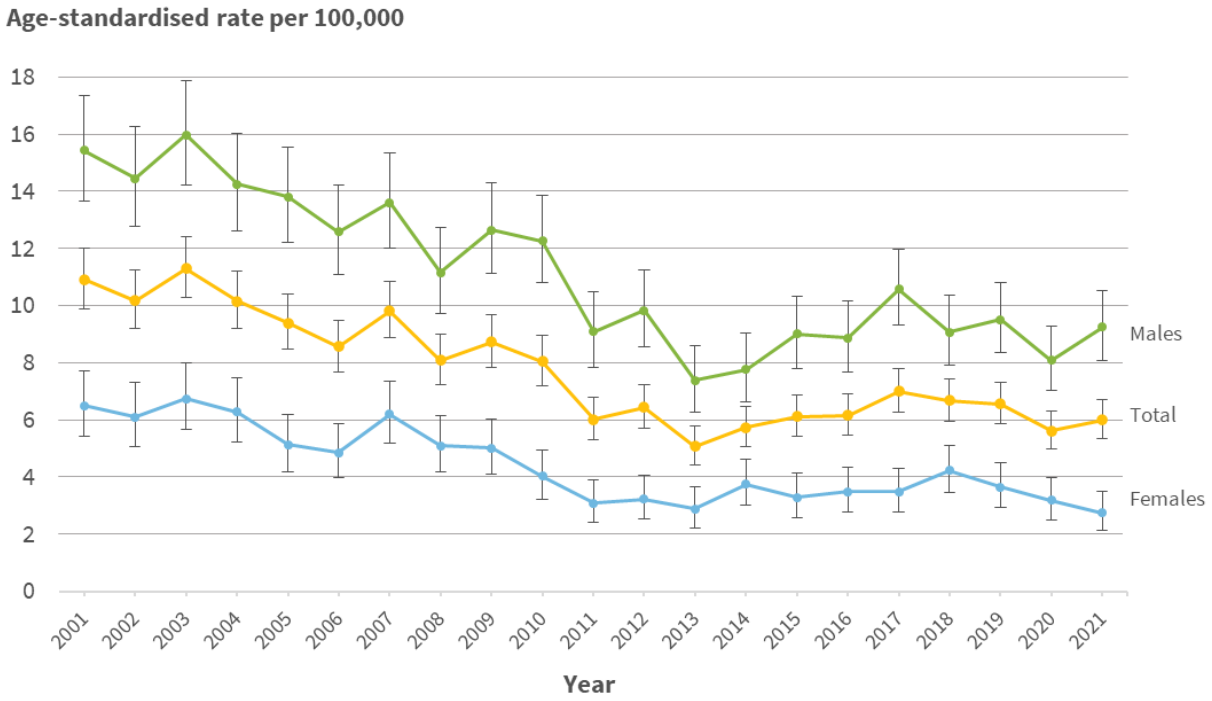
Source: Annual road toll (Ministry of Transport 2025)

The road toll figures above include all deaths, both New Zealand residents and overseas visitors. The rest of this surveillance report focuses on mortality rates using data from the New Zealand Mortality Collection. As the denominator for mortality rates is the usually resident population, deaths of overseas residents are excluded from calculations. For the most recently available year of mortality data, 2021, there were 322 road traffic injury deaths, including 1 overseas resident. A time series with counts of road traffic injury deaths of overseas residents is shown in Figure 13.

Higher male mortality rate in 2021

After adjusting for age, the overall road traffic injury mortality rate for 2021 was 6.0 deaths per 100,000 people (95%CI 5.3–6.7), compared to 5.6 per 100,000 (95%CI 5.0–6.3) in 2020. The mortality rate for males was higher in 2021 (9.2 deaths per 100,000 people, 95%CI 8.1–10.5) than in 2020 (8.1 deaths per 100,000 people, 95%CI 7.0–9.3). While not a statistically significant increase, the rate for males appears to be returning towards pre-COVID levels.

Figure 2: Road traffic injury mortality rates, by sex, 2001–2021

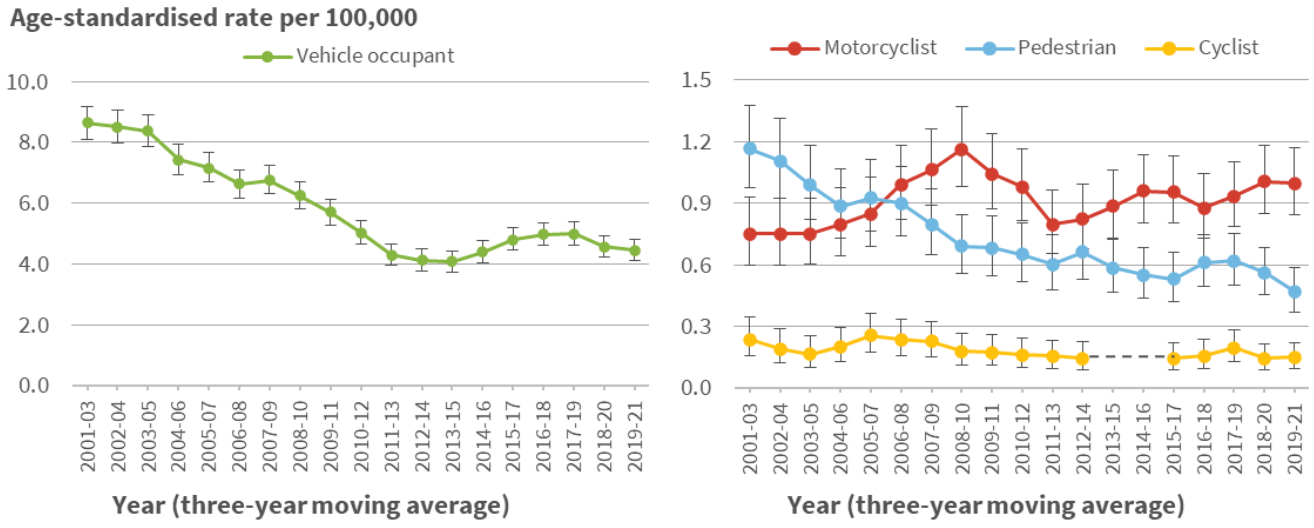


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection 2025

Mortality rates for most modes of transport remained steady

The vehicle occupant, cyclist and motorcyclist mortality rates remained steady between 2018–20 and 2019–21, while there was a slight decline in the rate for pedestrians (Figures 3a & 3b).

Figures 3a & 3b: Road traffic injury mortality rates, by mode of transport, 2001–03 to 2019–21



Notes: 95% confidence intervals have been presented as vertical bars. The dotted lines for cyclists indicate years where the rate has been suppressed due to a low count of deaths (<20).
Source: New Zealand Mortality Collection 2025

Motorcyclists were most at risk of death

Travel by motorcycle represents a very small proportion of the time and distance New Zealanders travel every year, but carries a far greater risk of fatal injury than any other mode of transport. Compared to non-motorcyclist modes, the risk (based on deaths per million hours travelled) was between 35 and 70 times greater (Table 1).

Table 1: Road traffic injury mortality risk by mode of transport, 2023/24

	Vehicle occupant	Motorcyclist	Pedestrian	Cyclist	All traffic
Million hours travelled	1,303	6	165	34	1,508
Million kilometres travelled	48,304	250	615	440	49,609
Number of deaths	205	56	22	9	292
Deaths per million hours	**0.2**	**9.3**	**0.1**	**0.3**	**0.2**
Deaths per million kilometres	**<0.01**	**0.22**	**0.04**	**0.02**	**0.01**

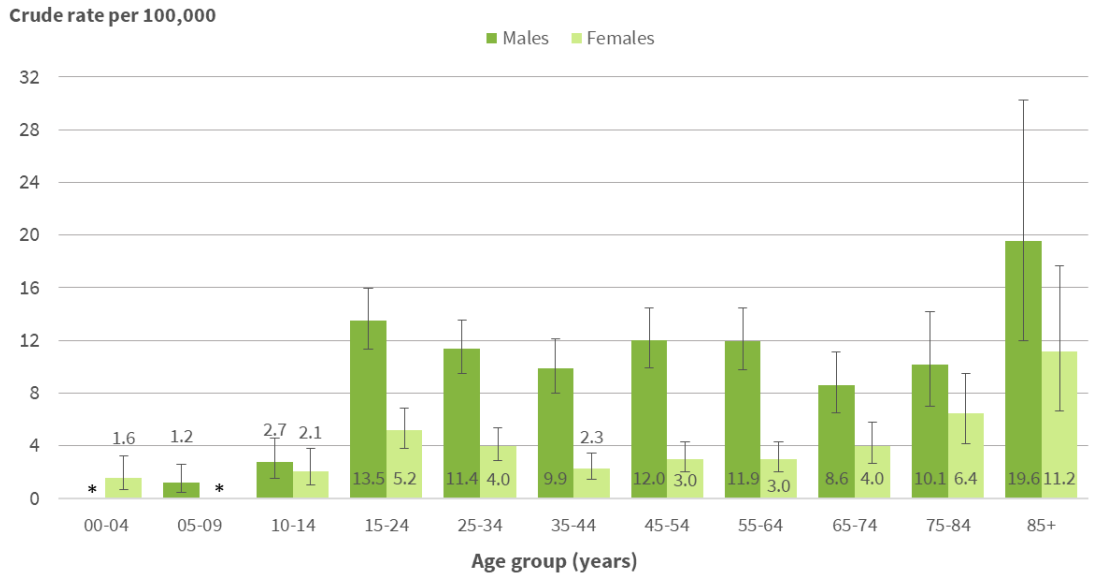
Note: Death data uses a calendar year (January–December), while the time and distance travelled (from the 2023/24 Household Travel Survey) is based on the financial year (July–June). These are the intervals for which the data is recorded in each source.

Sources: Annual road toll 2024 and New Zealand Household Travel Survey 2023/24 (Ministry of Transport 2025b)

The highest mortality rates were among males and older adults

Males had consistently higher mortality rates than females across all age groups from 15–24 years and over. The difference between male and female mortality rates was greatest for the age groups 35–44 years to 55–64 years. The highest mortality rates were for males 85 years and over (19.6 deaths per 100,000, 95%CI 12.0–30.3) (Figure 4).

Figure 4: Road traffic injury mortality rates, by age group and sex, 2019–21

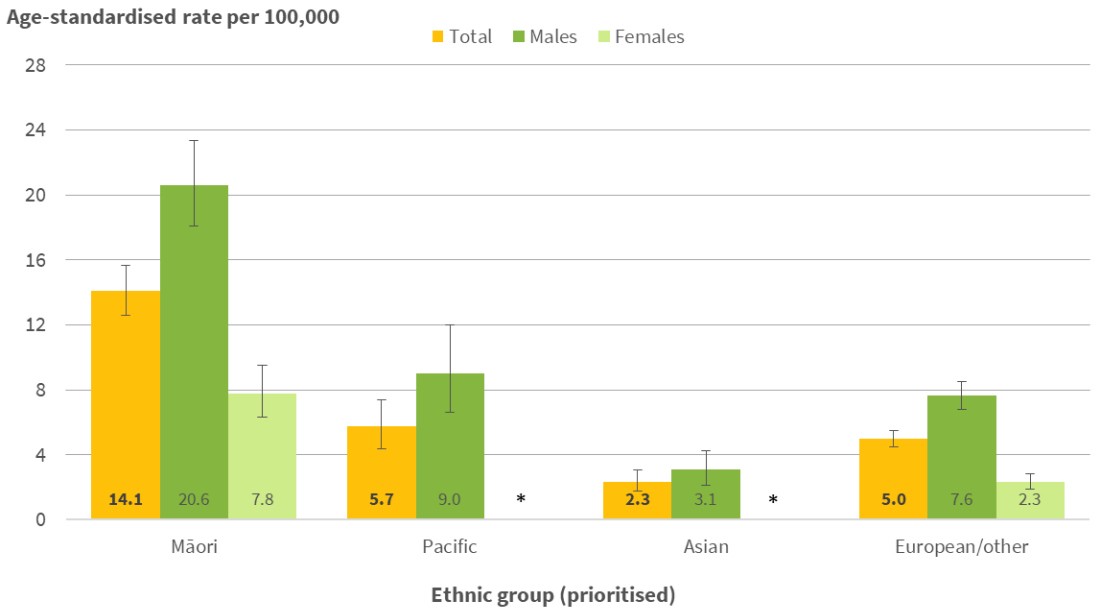


Note: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<5).
Source: New Zealand Mortality Collection 2025

Māori males had higher traffic injury mortality rates

In 2019–21, Māori had the highest mortality rate for traffic injuries of any ethnic group, with the rate for Māori males being especially high (20.6 per 100,000, 95%CI 18.1–23.3). For European/Other and Māori, the mortality rate among females was much lower than that among males. There were insufficient deaths to calculate rates for females for Asian and Pacific ethnic groups.

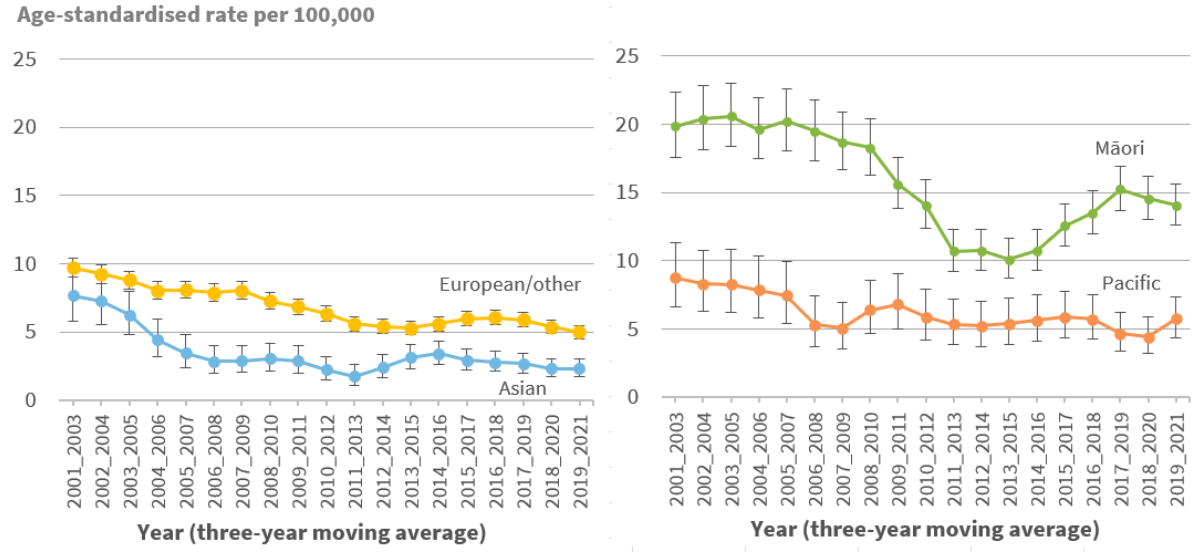
Figure 5: Road traffic injury mortality rate, by ethnic group (prioritised), 2019–21



Notes: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<20).
Source: New Zealand Mortality Collection 2025

Mortality rates for all ethnic groups were lower in 2019–21 than in 2001–03, even after an increase in rates for Māori between 2014–16 and 2017–19 (Figures 6a & 6b).

Figures 6a & 6b: Road traffic injury mortality rate, by ethnic group (prioritised), 2001–03 to 2019–21

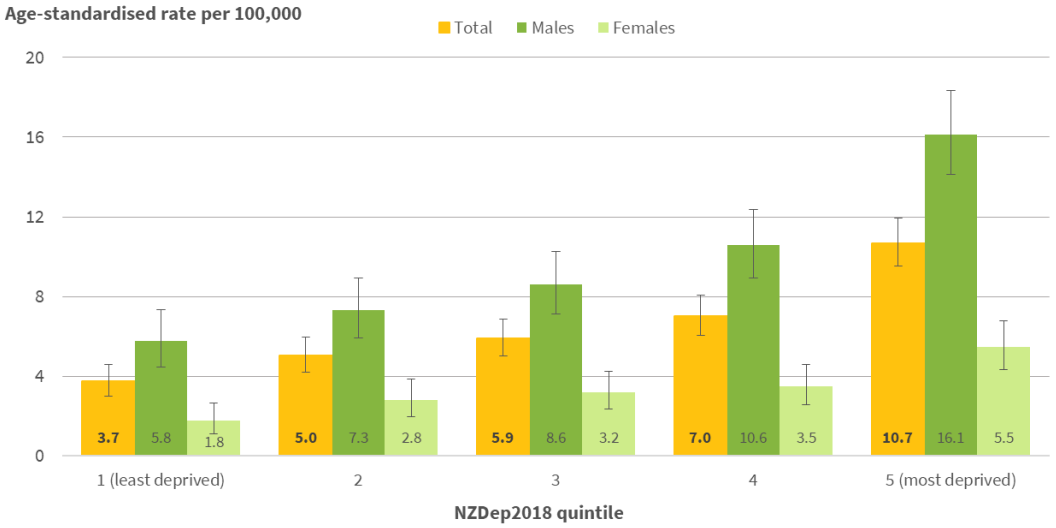


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection 2025

People living in more deprived areas had higher mortality rates

Road traffic injury mortality rates in the most socioeconomically deprived areas (NZDep2018 quintile 5) were much higher than those in the least deprived areas (quintile 1) in 2019–21. This was true for both sexes (Figure 7). After standardising for age, people living in the most socioeconomically deprived areas were nearly three times as likely to die as a result of a road traffic injury than those in the least deprived areas (rate ratio = 2.9, 95%CI 2.2–3.6).

Figure 7: Road traffic injury mortality rates, by NZDep2018 quintile and sex, 2019–21



Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection 2025

People living in major urban areas had lower mortality rates

In 2019–21, people living outside of major urban areas had much higher mortality rates for road traffic injuries than people living in main urban areas. The difference was greatest for people living in rural areas (rate ratio=3.8, 95%CI 3.1–4.5) (Figure 8).

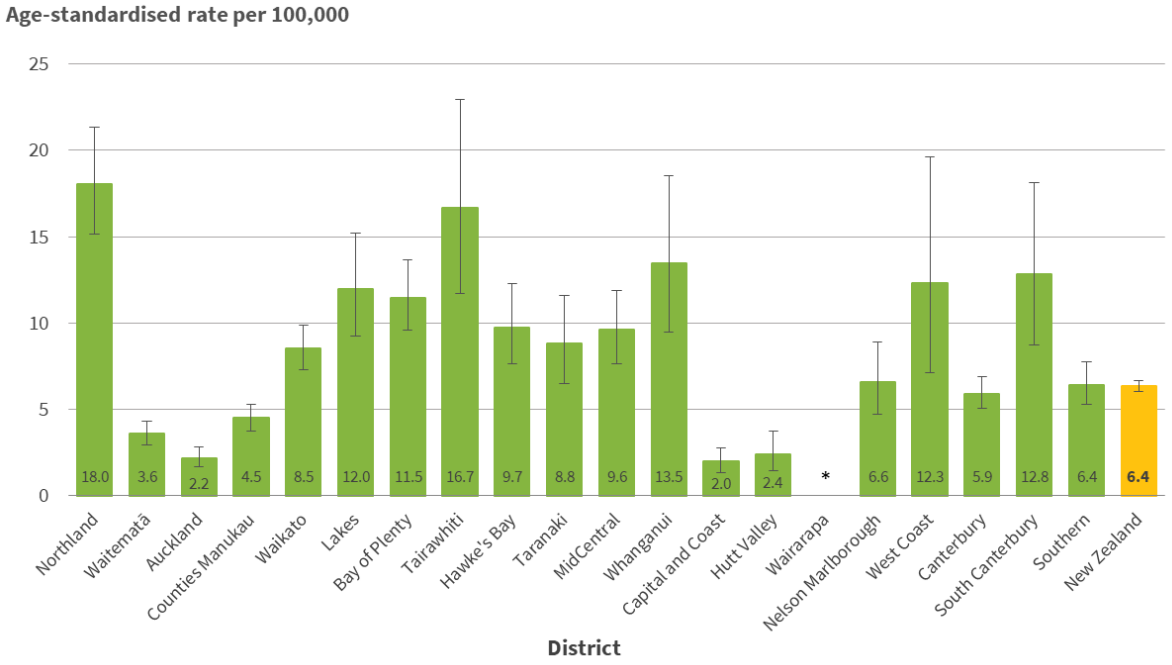
Figure 8: Road traffic injury mortality rates, by urban-rural classification and sex, 2019–21

Note: 95% confidence intervals have been presented as vertical bars. The Statistics NZ urban-rural classification for 2018 has been used. Major urban areas are major towns and cities with a population of 100,000 or more. Large urban areas are smaller centres with a population of 30,000–99,999. Medium urban areas are towns with a population of 10,000–29,999. Small urban areas are towns with a population of 1,000–9,999. Rural areas include rural centres and surrounding rural areas.
Source: New Zealand Mortality Collection 2025

The highest mortality rates were in Northland and Tairāwhiti districts

In 2017–21, Northland and Tairāwhiti districts (areas formerly known as District Health Boards) had high traffic injury mortality rates. Capital & Coast, Auckland and Hutt Valley districts had low rates (Figure 9).

Figure 9: Road traffic injury mortality rates, by district, 2017–21

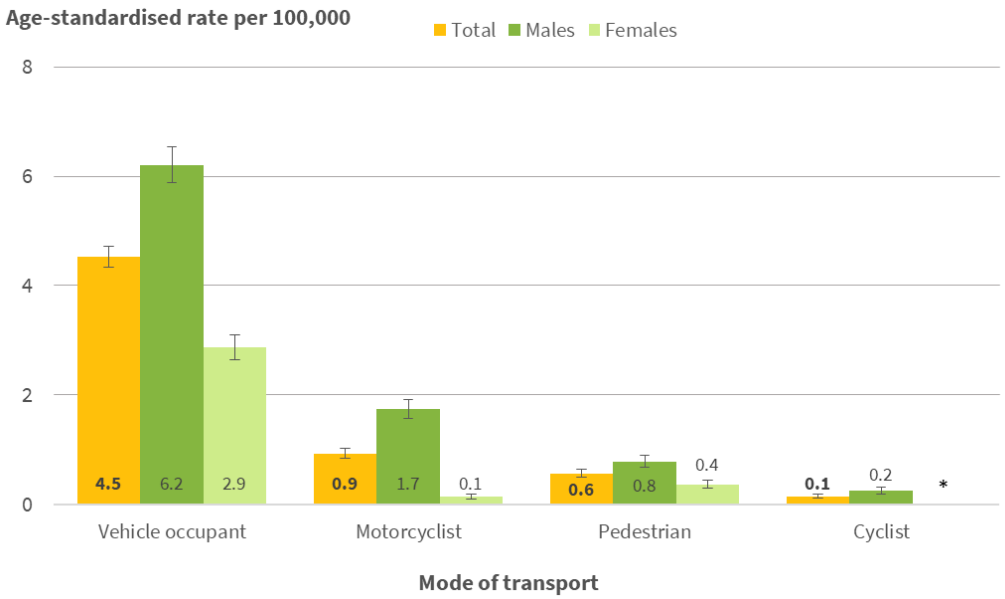


Notes: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<20).
Source: New Zealand Mortality Collection 2025

Mortality rates vary by road user type

In 2012–21, males had substantially higher mortality rates for all modes of transport compared to females (Figure 10). The difference was greatest for motorocyclists.

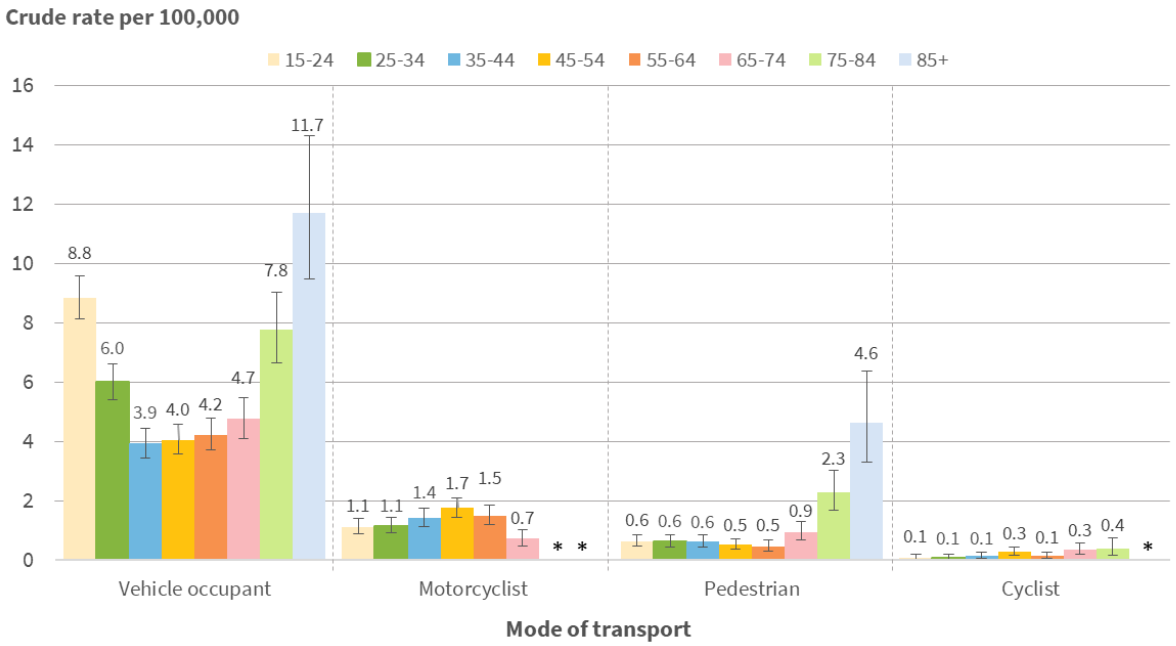
Figure 10: Road traffic injury mortality rates, by mode of transport and sex, 2012–21



Notes: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<20). All rates are per 100,000 persons, not per 100,000 users of the relevant mode of transport.
Source: New Zealand Mortality Collection 2025

Younger (15–24 years) and older (75+ years) adults had higher mortality rates for vehicle occupant injury than other age groups. Mortality rates among pedestrians were also highest in older adults. By contrast, motorcyclists had higher mortality rates in the middle years, with younger and older adults having generally lower rates. Rates for cyclists were too low to distinguish any differences between age groups (Figure 11).

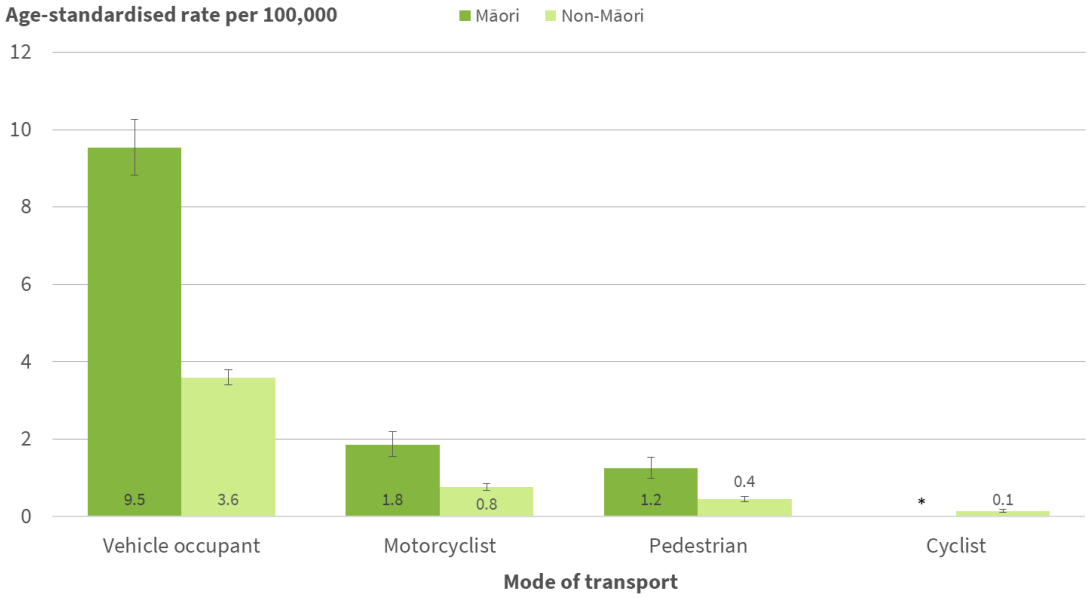
Figure 11: Road traffic injury mortality rates, by mode of transport and age group, 2012–21



Notes: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<5). All rates are per 100,000 persons, not per 100,000 users of the relevant mode of transport.
Source: New Zealand Mortality Collection 2025

Māori transport injury mortality rates were more than double those of non-Māori for all modes of transport except for cycling, where numbers were too low to calculate a rate for Māori (Figure 12).

Figure 12: Road traffic injury mortality rates, by mode of transport and Māori/non-Māori ethnicity, 2012–21

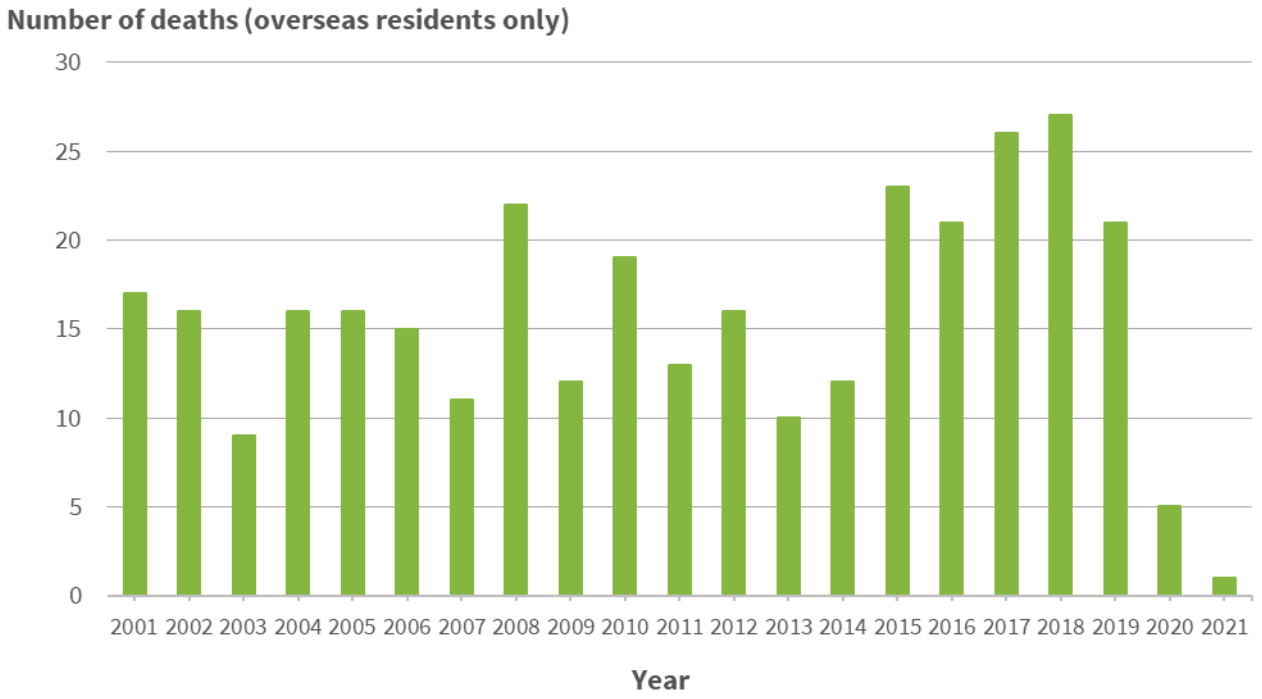


Note: 95% confidence intervals have been presented as vertical bars. * = Rates suppressed due to a low count of deaths (<20). All rates are per 100,000 persons, not per 100,000 users of the relevant mode of transport.
Source: New Zealand Mortality Collection 2025

Deaths of overseas residents on New Zealand roads

While overseas residents are excluded from mortality rate calculations, they do make up a part of the total NZ road toll. Figure 13 shows the number of road traffic injury deaths of overseas residents each year from 2001 up until the most recent year of mortality collection data. Over this period, the highest number of deaths of overseas residents was 27 in 2018. The very low numbers of deaths in 2020 and 2021 were due to the border closure as part of COVID-19 restrictions.

Figure 13: Road traffic injury mortality counts, overseas residents only, 2001–2021



Source: New Zealand Mortality Collection 2025

Inequalities in road traffic injury deaths are high in Aotearoa New Zealand

Rates of road traffic injury deaths show strong inequalities. Māori, people living in areas with greater socioeconomic deprivation and people in rural areas have higher road traffic injury mortality rates. In addition, mortality rates for Māori appear to be increasing. These patterns are similar to those found in our 'Road traffic injury hospitalisations' surveillance report (Environmental Health Intelligence NZ 2024).

Data for this indicator

This report includes two primary sources of data on road transport mortality. The annual road toll statistics (1990–2024) from the Ministry of Transport and more in-depth data from the New Zealand Mortality Collection (2001–2021). Some supporting data is from the New Zealand Household Travel Survey, also produced by the Ministry of Transport.

The following ICD–10AM codes were used to identify relevant cases from the mortality collection:

- Vehicle occupant [V30–V79] (.4–.9), [V83–V86] (.0–.3);
- Motorcyclist V20-V28[.3-.9], V29[.4-.9];
- Pedal cyclist V12-V14[.3-.9], V19[.4-.6];
- Pedestrian V02-V04[.1-.9], V09.2;
- Other V80[.3-.5], V81.1, V82.1;
- Unspecified V87[.0-.8], V89.2.

These ICD codes are consistent with the classification of external cause of injury used by the Centers for Disease Control and Prevention (2002).

Age-standardised rates (using the WHO population) have been presented, where possible, to account for the population age structures of different population groups.

For additional information, see the Metadata sheet.

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Citation

Environmental Health Intelligence. 2026. *Road traffic injury mortality* [Surveillance Report]. Wellington: Environmental Health Intelligence NZ, Massey University.

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