

| Information topic | Details |
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| Indicator name | Road traffic injury mortality |
| Domain and topic | Transport |
| Indicator definition and units | The number and rate of road traffic deaths, by mode of transport |
| Data sources | New Zealand Mortality Collection (Health New Zealand – Te Whatu Ora) Annual Road Toll (Ministry of Transport) New Zealand Household Travel Survey (Ministry of Transport) Populations web tool (Health New Zealand – Te Whatu Ora) |
| Numerator | <p>Mortality rate calculations include deaths of NZ residents due to road traffic injuries from the New Zealand Mortality Collection. The following ICD–10AM codes were used:</p> <ul style="list-style-type: none"> • 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 <p>These ICD codes are consistent with the classification of external cause of injury used by the Centers for Disease Control and Prevention (2002).</p> <p>Road toll: Number of deaths from Ministry of Transport</p> |
| Denominator | <ul style="list-style-type: none"> - Mortality rate: Stats NZ estimated resident population (sourced from the Aotearoa Data Explorer and Health NZ), and population projections for ethnicity data from 2024 onwards. - Mortality rate by NZDep: NZDep2018 Index of Deprivation (University of Otago) - Mortality risk per million hours / kilometres travelled per year: number of hours/kilometres travelled, by mode of transport (Ministry of Transport). |
| Population coverage | Mortality rates use the New Zealand estimated resident population of all ages. |
| Spatial Coverage | National, with rates also presented by district (areas formerly referred to as District Health Boards). |
| Measures of frequency | <p>Mortality rate calculations are presented by travel mode, year, age group, sex, ethnic group, NZDep2018 quintile, urban/rural classification and district.</p> <p>Counts from the New Zealand Mortality Collection numbers are also presented for overseas residents.</p> <p>Road toll numbers are presented by travel mode.</p> <p>Urban/rural classification uses the IUR2018, with the categories ‘major urban areas’, ‘large urban areas’, ‘medium urban areas’, ‘small urban</p> |

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| | <p>areas', and 'rural/other'. IUR2018 was assigned using the health domicile code of individuals in the Mortality Collection, and in cases where the domicile code overlapped an IUR2018 boundary, meshblock information from the linked Health Service User (HSU) population dataset was used to give a more precise IUR2018 category. In a small number of cases where the domicile code overlapped an IUR2018 boundary and there was insufficient HSU meshblock data to use, we assigned the individual to the most probable IUR2018 category based on land area and population in the domicile code.</p> |
| Methodology | <p>95% confidence intervals were calculated based on the methodology outlined in APHO (2008). Confidence intervals are presented as error bars on graphs.</p> <p>Suppression was applied to some rates due to the unreliability of estimates with small numbers. Age-standardised rates were suppressed for counts less than 20 or populations less than 30. Crude rates were suppressed for counts less than 5 or populations less than 30.</p> |
| Limitations of indicator | <ul style="list-style-type: none"> • Spatial analysis was based on residential address and not the site of crash. • The reported year of death was the year of death registration, not necessarily the year in which the death occurred. • The New Zealand Mortality Collection generally has a long time lag due to waiting for coroners reports to be completed. |
| References | <p>Ahmad O B, et al. 2001. <i>Age Standardization of Rates: A New WHO Standard (Technical Report)</i>. GPE Discussion Paper Series: No. 31. Geneva: World Health Organization.</p> <p>APHO. 2008. <i>Technical Briefing 3: Commonly used public health statistics and their confidence intervals</i>. York, UK: Association of Public Health Observatories.</p> <p>Centers for Disease Control and Prevention. 2002. <i>ICD Framework: External Cause of Injury Mortality Matrix</i>. Retrieved 18/03, 2015, from http://www.cdc.gov/nchs/injury/ice/matrix10.htm</p> <p>Langley J, Stephenson S, Cryer C, & Borman B. 2002. Traps for the unwary in estimating person-based injury incidence using hospital discharge data. <i>Injury Prevention</i>, 8(4), 332-337.</p> <p>Ministry of Health. 2006. <i>Hospital Throughput for DHBs and their Hospitals</i>. Retrieved 18/03 2015, from http://www.health.govt.nz/system/files/documents/publications/hospital-throughput0304.pdf</p> |