Metadata

Information topic	Details
Indicator name	**Road traffic injury hospitalisations**
Domain and topic	Transport
Indicator definition and units	The number and rate of road traffic injuries, by mode of transport
Data source	National Minimum Dataset
Numerator	Numerator: Number of injuries
Denominator	• Hospitalisation rate: population estimates (Statistics New Zealand) • Hospitalisation rate by NZDep: NZDep2013 Index of Deprivation (University of Otago) • Injury hospitalisation risk per million hours / kilometres travelled per year: number of hours/kilometres travelled, by mode of transport, 3-year moving average (Ministry of Transport).
Methodology	The indicator includes hospitalisations with a principal diagnosis of injury and a traffic-related external cause. The following ICD–10AM codes were used: • 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). The following hospitalisations were excluded from analysis: • transfers within or between hospitals • overseas visitors • day cases (where the patient was discharged alive from hospital on the same day as admitted) • deaths (defined as 'event end types' DD, DO or ED) • emergency department short stay (where the patient was seen in ED and discharged on the same or next day, without admission as an inpatient) • readmissions for the same injury (based on having the same injury date) (Langley et al 2002, Ministry of Health 2006)
Time period and time scale	Injury Hospitalisations: 2000 onwards. Data is available on an annual basis. For some analyses, we have pooled data across multiple years due to small counts (for instance, injury rates by ethnicity).
Population coverage	New Zealand usually resident population of all ages.
Spatial Coverage	National, with rates also presented by District Health Board.

Measures of frequency	Results are presented by travel mode, year, age group, sex, ethnicity, NZDep2013 quintile, urban/rural classification and DHB.
Confidence interval methodology	95% confidence intervals were calculated based on the methodology outlined in APHO (2008). Confidence intervals are presented as error bars on graphs.
Limitations of indicator	This data relates to the traffic injury hospitalisations by different modes of travel. Limitations include the following: • The indicator only covers injuries that resulted in hospital admissions. • Spatial analysis was based on residential address and not the site of crash. • The indicator will only present the number/rate of hospitalisations and not the number of people affected. • The indicator excludes some minor injuries through the exclusion criteria (see above). This means that the indicator focuses more on moderate to severe injuries.
Limitations of data source	As above.
Created by	New Zealand Ministry of Health
Related indicators	Number of motor vehicles Active transport to and from school Unmet need for GP services due to lack of transport Main mode of transport to work Household travel time by mode of transport
For more information	See references
References	APHO. 2008. *Technical Briefing 3: Commonly used public health statistics and their confidence intervals.* York, UK: Association of Public Health Observatories. Centers for Disease Control and Prevention. 2002. *ICD Framework: External Cause of Injury Mortality Matrix.* Retrieved 18/03, 2015, from http://www.cdc.gov/nchs/injury/ice/matrix10.htm Langley, J., Stephenson, S., Cryer, C., & Borman, B. 2002. Traps for the unwary in estimating person-based injury incidence using hospital discharge data. *Injury Prevention*, 8(4), 332-337. Ministry of Health. 2006. *Hospital Throughput for DHBs and their Hospitals.* Retrieved 18/03 2015, from http://www.health.govt.nz/system/files/documents/publications/hospital-throuhout0304.pdf