

## Metadata: Hazardous substances-related hospitalisations

Information topic	Details
Indicator name	<b>Hazardous substances-related hospitalisations</b>
Domain and topic	Hazardous Substances domain: Health effects of hazardous substances
Rationale	<p>Injuries continue to occur from hazardous substance exposures that appear to be entirely preventable. A high proportion of these incidents are caused by hazardous substances used in everyday domestic and workplace situations.</p> <p>This data can be used to assess the burden of hazardous substances, monitor trends over time, identify high-risk groups, and enhance prevention, education and evaluation efforts.</p>
Indicator definition and units	<p>The number and rate of hazardous substances-related hospital discharges. Rates are presented per 100,000 population.</p> <p>* A hazardous substance is anything that can explode, catch fire, oxidise, corrode or be toxic to humans, as defined in the Hazardous Substances and New Organisms Act 1996. This definition does not include medicines in finished dose form, alcohol other than industrial alcohol, or radioactive materials.</p> <p>A 'hospital discharge' includes a person that has been admitted to hospital and later discharged. However, this does not include those who have been discharged home directly from the emergency department.</p>
Data source	National Minimum Dataset (NMDS), Ministry of Health.
Numerator	<p>Number of hazardous substances-related hospital discharges</p> <p>Causes of injury were assigned using the external-cause and nature-of-injury codes. External causes reflect the mechanism of the injury. The nature of injury reflects the clinical diagnosis. A full list of external-cause (E code) and diagnosis/nature-of-injury codes is provided in Appendix 1.</p> <p>The following hospital discharges were excluded from analysis:</p> <ul style="list-style-type: none"> <li>• transfers within or between hospitals</li> <li>• deaths (defined as 'event end types' DD, DO or ED)</li> <li>• Readmissions have been excluded from the data set. In this report, a 'readmission' is defined as the unintended acute readmission of a patient from any injury within 30 days of discharge</li> </ul>

	Unless otherwise stated, analysis includes only those cases which have listed intent as “unintentional.”
Denominator	Mid-year population estimates from 2006 to 2013 and population projections from 2014 were the denominators for mortality, hospitalisation, and primary care notification rates. Denominators for the non-Māori rates were constructed by subtracting the Māori population estimates from the total New Zealand population estimates for each year.
Methodology	Age-standardised rates have been calculated using the direct method, using the World Health Organization world population age distribution (Ahmad et al 2000). Prioritised ethnicity has been used, in the following prioritisation order: Māori, Pacific peoples, Asian, European/Other. We have used the variables provided on the National Minimum Dataset for the analysis, including prioritised ethnicity, sex, NZDep2013 decile and District Health Board.
Time period and time scale	Annual data, from 2006 to the most recent data available.
Population coverage	New Zealand usually resident population of all ages.
Spatial coverage	National.
Reporting variables	Results are presented by year, ethnic group, Intent of exposure, age group, sex, diagnosis group, NZDep and District Health Board.
Confidence intervals	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 and data source	<p>There is insufficient information to determine the work-related nature of a case from most of the datasets used in the report. Therefore, it is difficult to reliably breakdown hazardous substances-related injury into occupational and non-occupational disease and injuries.</p> <p>It is important to note that hospital events recorded in the NMDS represent individual events rather than individual people. The number of events will be higher than the number of people because one person can contribute numerous unique hospital events to the dataset.</p>
Created by	Ministry of Health New Zealand.

Related indicators	Number of lead absorption notifications Number of hazardous substances notifications
References	Ministry for Business, Innovation, and Employment. 2013. Work-related Disease in New Zealand. Wellington, New Zealand.  Ahmad, O.B., et al. (2000). Age Standardization of Rates: A New WHO Standard (Technical Report). GPE Discussion Paper Series: No. 31. Geneva: World Health Organization.

<b>CODES</b>	<b>DESCRIPTION</b>
X60-X69	Intentional self-poisoning
X75	Intentional self-harm by explosive material
X76	Intentional self-harm by smoke, fire and flames
X83	Intentional self-harm by other specified means
X40-X49	Accidental poisoning by and exposure to noxious substances
W36	Explosion and rupture of gas cylinder
W37	Explosion and rupture of pressurised tyre, pipe or hose
W38	Explosion and rupture of other specified pressurised devices
W39	Discharge of firework
W40	Explosion of other materials
X04	Exposure to ignition of highly flammable material
X08	Exposure to other specified smoke, fire and flames
X20-X28	Contact with venemous animals and plants
X58	Accidental exposure to other specified factors
Y25	Contact with explosive material, undetermined intent
Y26	Exposure to smoke, fire and flames, undetermined intent
Y33	Other specified events
Y86	Sequelae of other accidents
Y87.0	Sequelae of intentional self-harm, assault and events of undetermined intent
Y87.2	Sequelae of events of undetermined intent
Y10-Y19	Poisoning of undetermined intent
X85	Assault by drugs, medicaments and biological substances
X86	Assault by corrosive substance
X87	Assault by pesticides
X88	Assault by gases and vapours
X89	Assault by other specified chemicals and noxious substances
X96	Assault by explosive material
X97	Assault by smoke, fire and flames
Y08	Assault by other specified means
Y87.1	Sequelae of assault
Y35.1	Legal intervention involving explosives
Y35.2	Legal intervention involving gas
Y35.6	Legal intervention involving other specified means
Y89.0	Sequelae of legal intervention
J61	Pneumoconiosis due to asbestos and other mineral fibres
W92	Exposure to excessive heat of man-made origin
W93	Exposure to excessive cold of man-made origin
W35	Explosion and Rupture of Boiler
Y89.9	Sequelae of unspecified external cause
X90	Assault by unspecified chemicals or noxious substance
Y90.1Y90.8	Evidence of alcohol involvement determined by blood alcohol level of 20mg/100 ml or more
Y90.9	Evidence of alcohol involvement determined by presence of alcohol in blood, level not specified
Y91	Evidence of alcohol involvement determined by level of intoxication