

Information topic	Details
Indicator name	Hazardous substances notifications in New Zealand
Domain and topic	Hazardous Substances domain: Hazardous substances notifications.
Indicator definition and units	<p>The number of annual hazardous substances* notifications entered into the HSDIRT reporting tool in New Zealand, excluding cases that were assigned as ‘not a case’ by the Public Health Units.</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. Substances that are covered by the HSNO Act, and the Health Act’s “poisoning arising from chemical contamination of the environment”, in particular carbon monoxide, are included.</p>
Data source	<p>The Hazardous Substances Disease and Injury Reporting Tool (HSDIRT); 2013 – present.</p> <p>Episurv: 2001 – 2013.</p>
Numerator	Number of hazardous substances notifications.
Denominator	Population estimates (2018 and prior) and projections (after 2018) from Statistics New Zealand and the 2018 denominator population by NZDep2018 deciles, age group and sex has been used.
Methodology	<p>Diseases or injuries due to exposure to hazardous substances are notifiable in New Zealand. All cases diagnosed by doctors and/or laboratories are required to be notified to the Medical Officer of Health in the region for further investigation.</p> <p>GPs or local Public Health Units notify cases of hazardous substance exposures, including lead, to the HSDIRT which is administered by Environmental Health Intelligence NZ.</p> <p>Public Health Services will assign a case status based on their investigation. Cases are not included in the analysis if they are assigned as ‘not a case’</p> <p>The date of hazardous substances notifications is approximated using the date of exposure. In the event this is not available, the date of assessment recorded by the PHU is used for analysis.</p> <p>When a hazardous substance is not listed in the “Substance Chemical” or “Substance Common” tabs in HSDIRT, “Exposure Notes” are assessed to determine the hazardous substance involved. If no information is available, the substance is listed as “Unknown”.</p>

	<p>Prioritised ethnic group has been used, in the following prioritisation order: Māori, Pacific peoples, Asian, European/Other.</p> <p>Crude rates are suppressed for counts less than 5 or populations less than 30, due to unreliability of the estimate with small numbers.</p> <p>Age-standardised rates are suppressed for overall counts less than 20, or if any age-band of the calculation has a population less than 30, due to unreliability of the estimate with small numbers (Ahmad et al 2001).</p> <p>Confidence intervals 95% confidence intervals were calculated based on the methodology outlined in APHO (2008). Confidence intervals are presented as error bars on graphs.</p>
Time period and time scale	<p>The HSDIRT was rolled out progressively to all DHBs throughout 2013; therefore 2013 data were not complete. Consequently, notification data is reported from 2014 onwards.</p> <p>For the national time series, 2013 notifications are a combination of EpiSurv and HSDIRT data.</p>
Population coverage	All people in New Zealand
Spatial Coverage	National
Measures of frequency	Results are presented by year, sex, age group, ethnic group, exposure place, exposure route, NZDep2018 (Atkinson et al 2021), and PHUs.
Limitations of indicator	In most cases, diseases or injuries due to hazardous substances exposure will not have been confirmed by a diagnostic test.
Limitations of data source	<p>This data source only includes cases that were notified and will be underestimating the total burden of diseases or injuries that were caused by hazardous substances exposures.</p> <p>Also, a case will not be included in the analysis if the GP is unaware of the tool and does not use it to notify cases to the PHU.</p>
Created by	Environmental Health Intelligence NZ, Massey University, Wellington.
Related indicators	<p>Non-occupational lead absorption notifications in New Zealand</p> <p>Occupational lead absorption notifications in New Zealand</p> <p>Hazardous substances-related deaths reported to the coroner in New Zealand</p> <p>Hazardous substances-related deaths registered in New Zealand</p> <p>Unintentional hazardous substances-related hospitalisations</p> <p>Unintentional hazardous substances exposures in children (0–14 years)</p>

Metadata

For more information	HSDIRT notification tool. https://www.ehinz.ac.nz/indicators/hazardous-substances/resources-for-health-professionals/
References	<p>Ahmad, O.B, Boschi-Pinto, Lopez. 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>Atkinson J, Salmond C, Crampton P. 2021. NZDep2018 analysis of Census 2018 variables. Wellington: Department of Public Health, University of Otago, Wellington. URL: https://www.otago.ac.nz/wellington/departments/publichealth/otago830998.html</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>