

<b>Information topic</b>	<b>Details</b>
Indicator name	<b>Hazardous substances notifications in New Zealand</b>
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	The Hazardous Substances Disease and Injury Reporting Tool (HSDIRT); 2014–22.
Numerator	Number of hazardous substances notifications.
Denominator	Population estimates (mid-year), prepared by Statistics New Zealand.
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, 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 exposure date. In the event this is unavailable, date of assessment by the PHU is used,</p> <p>When a hazardous substance is not listed in the “Substance Chemical” or “Substance Common” tabs in HSDIRT, “Exposure Notes” are assessed. If information is unavailable, the substance is “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><b>Confidence intervals</b> 95% confidence intervals were calculated based on the methodology outlined in APHO (2008). Confidence intervals are presented as error bars on graphs.</p> <p><b>Data matching (for all HSDIRT data):</b> In August 2023, missing demographic information; age (7 missing), sex (46 missing), ethnicity (561 missing) and address (257 missing) were collected from HSDIRT along with the linked NHI number. NHI's were sent to Te Whatu Ora for matching through the IDI.</p> <p>Quality control checks were done on returned information including:</p> <ul style="list-style-type: none"> <li>- assessment of repeat NHI's to ensure information was the same</li> <li>- allocation of addresses to the correct PHU and district</li> <li>- ensuring that information sent and received was accurate</li> </ul> <p>Once checks complete data was merged with raw HSDIRT data for analysis.</p>
Time period and time scale	The HSDIRT was rolled out progressively to all districts throughout 2013; therefore 2013 data were not complete. Consequently, notifications are reported from 2014.
Population coverage	All people in New Zealand of all ages.
Spatial Coverage	National
Measures of frequency	Results are presented by year, sex, age group, exposure place, intent 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	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. 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.
Related indicators	<p><a href="#">Hazardous substances-related deaths reported to the coroner in New Zealand</a></p> <p><a href="#">Hazardous substances-related deaths registered in New Zealand</a></p> <p><a href="#">Unintentional hazardous substances-related hospitalisations</a></p> <p><a href="#">Unintentional hazardous substances exposures in children (0–14 years)</a></p>
For more information	HSDIRT notification tool. <a href="https://www.ehinz.ac.nz/indicators/hazardous-substances/resources-for-health-professionals/">https://www.ehinz.ac.nz/indicators/hazardous-substances/resources-for-health-professionals/</a>
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>APHO. 2008. <i>Technical Briefing 3: Commonly used public health statistics and their confidence intervals</i>. York, UK: Association of Public Health Observatories.</p>