

Metadata: Sudden Unexpected Death in Infancy (SUDI)

Information topic	Details
Indicator name	Sudden unexpected death in infancy (SUDI)
Domain	Indoor environment domain: Sudden unexpected death in infancy (SUDI)
Rationale	Children aged 0–12 months exposed to second-hand smoke are at higher risk of sudden unexpected death in infancy (SUDI) (US Department of Health and Human Services, 2007). In particular, evidence shows an increased risk of SUDI for infants whose mother smokes, independent of whether the mother smoked during pregnancy (Anderson & Cook, 1997).
Indicator definition and units	The number and rate of deaths from SUDI, for children aged less than one year old. Rates are presented per 1000 live births.
Data source	<i>Fetal and Infant Deaths</i> publications, published by the Ministry of Health using data from the New Zealand Mortality Collection (Ministry of Health, 2017).
Numerator	Deaths in children aged 0–12 months (ie less than one year old) with an underlying cause of death in the following ICD-10AM codes: R95 (sudden infant death syndrome), R96 (other sudden death, cause unknown), R98 (unattended death), R99 (other ill-defined and unspecified causes of mortality), W75 (accidental suffocation and strangulation in bed), W78 (inhalation of gastric contents) and W79 (inhalation and ingestion of food causing obstruction of respiratory tract). This definition follows the recommendations of the Child and Youth Mortality Review Committee (2009).
Denominator	Number of live births. Live birth is defined by the Ministry of Health (2017), according to the World Health Organization definition, as: “the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn”.
Methodology	Prioritised ethnicity has been used, in the following prioritisation order: Māori, Pacific peoples, Asian, European/Other. We have used the variables provided in the Excel tables for the publication <i>Fetal and Infant Deaths</i> for the analysis.
Time period and time scale	Annual data, from 2000 to the most recent data available.

Population coverage	All live births.
Spatial coverage	National.
Reporting variables	Results are presented by year, ethnic group, NZDep, and DHB.
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	Small numbers limit the amount of analysis that can be carried out. SUDI deaths often depend on a coroner's report, which can, in some cases, take several years to complete. For this reason, numbers may not exactly match previously published data.
Created by	Ministry of Health New Zealand.
Related indicators	Maternal smoking at two weeks postnatal Second-hand smoke exposure Household crowding Asthma prevalence Asthma hospitalisations Lower respiratory tract infection hospitalisations Meningococcal disease
References	<p>Anderson, H. R., & Cook, D. (1997). Passive smoking and sudden infant death syndrome: review of the epidemiological evidence. <i>Thorax</i>, <i>52</i>, 1003–1009.</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>Child and Youth Mortality Review Committee, Te Rōpū Arotake Auau Mate o te Hunga Tamaraiki, Taiohi. (2009). <i>Fifth Report to the Minister of Health: Reporting mortality 2002–2008</i>. Wellington: Child and Youth Mortality Review Committee.</p> <p>Ministry of Health. (2017). <i>Fetal and Infant Deaths 2014</i>. Wellington: Ministry of Health. Available online: http://www.health.govt.nz/publication/fetal-and-infant-deaths-2014 (accessed 9 November 2017).</p> <p>U.S. Department of Health and Human Services. (2007). <i>Children and Secondhand Smoke Exposure. Excerpts from The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General</i>. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.</p>