

Information topic	Details
Indicator name	Asthma prevalence in children aged 2–14 years
Domain and topic	Indoor environment (and Children’s Environmental Health) domain: Asthma
Indicator definition and units	Prevalence of medicated asthma is defined as having been diagnosed by a doctor as having asthma and using inhalers, medicine, tablets, pills or other medication, in children aged 2–14 years (Ministry of Health 2014).
Data source	New Zealand Health Survey, conducted by the Ministry of Health.
Survey question	<p>Asthma and asthma medication were asked about in the child questionnaire of the New Zealand Health Survey, for children aged 2–14 years. The questions asked were:</p> <ul style="list-style-type: none"> • Have you ever been told by a doctor that [child’s name] has asthma? <i>Yes / No / Don’t know / Refused</i> • (If yes above) What treatments does [child’s name] now have for asthma? [Multiple responses possible] <i>No treatment / Inhaler / Medicines, tablets or pills / Something else / Don’t know / Refused</i> <p>A primary caregiver answered the child questionnaire as a proxy for the child.</p>
Numerator	Children aged 2–14 years who have been diagnosed by a doctor as having asthma, and currently use inhalers, medicine, tablets, pills, or other medication.
Denominator	All children aged 2–14 years.
Methodology	<p>We have presented published data from the New Zealand Health Survey. The following points can be noted about the Ministry of Health methodology:</p> <p>Question non-response (where respondents did not answer the question, or answered “don’t know”) was adjusted for in analysis so that the results still represent the whole population.</p> <p>Time trends: Results between survey years have been compared, and statistically significant differences are noted (based on <i>t</i>-tests using age-standardised results).</p> <p>Population groups: Results between population groups have been compared using adjusted rate ratios (except for between different age groups).</p> <p>Confidence interval: 95% confidence intervals were calculated by the Ministry of Health using jack-knife weights. Confidence intervals are presented in brackets in the text and tables, and as vertical bars on graphs.</p> <p>For more details, see the NZHS Methodology report (Ministry of Health 2023).</p>
Time period and time scale	National data is available for 2006/07, 2011/12, 2012/13, and annually after this.

	<p>District-level pooled data is presented for the three-year period 2017–20.</p> <p>Data collection:</p> <ul style="list-style-type: none"> - 2011/12 data onwards: Survey data were collected for the 12-month period from 1 July to 30 June the following year. - 2006/07: Survey data were collected from October 2006 to November 2007.
Population coverage	<p>Since 2011, the New Zealand Health Survey results refer to the usually resident population of all ages, who are living in permanent dwellings, aged-care facilities, and student accommodation. The following people were not included in the survey: people living in institutions, such as for long-term hospital care, hospital- and dementia-level care in aged-care facilities, and in prisons; the homeless; short-term visitors; and tourists.</p> <p>The child survey covers children aged 0–14 years, and the survey question about asthma was only asked for children aged 2–14 years.</p>
Spatial coverage	Nationally, with regional results available by district (formerly District Health Board (DHB) areas).
Measures of frequency	Results are presented by sex, age group, ethnic group (total response), neighbourhood deprivation (NZDep2018 quintiles), and district.
Limitations of indicator	There is some uncertainty in the estimates due to taking a sample, reflected in the 95% confidence intervals.
Limitations of data source	<p>The survey results may under- or over-estimate indicators due to the nature of self-reported information.</p> <p>The survey is designed to have a sample size of approximately 14,000 adults and 5,000 children in a normal year (without disruption to data collection due to COVID-19 pandemic). Due to impacts from the COVID-19 epidemic, sample sizes for 2019/20 onwards have been lower than this. This means that results are based on a survey population that is smaller than that of a typical pre Covid survey. Smaller sample sizes mean it is harder to confirm trends, due to greater uncertainty in the calculated results.</p> <p>In December 2023, the Ministry of Health advised that results published in 2022 for the 2021/22 year were affected by an error in assigning New Zealand Index of Deprivation (NZDep) decile. The errors were corrected for the latest survey results release. Full details regarding the error can be found on the Ministry of Health website. For the Asthma prevalence indicator, the greatest impact was on results by NZDep2018 Quintile. However, all changes were within the original margin of error given for the results.</p>
Related indicators	<p>Asthma hospitalisations (0–14 years)</p> <p>Second-hand smoke exposure (0–14 years)</p> <p>Maternal smoking at two weeks postnatal</p> <p>Lower respiratory tract infections (0–4 years)</p> <p>Meningococcal disease (0–14 years)</p> <p>Sudden unexpected death in infancy (SUDI)</p> <p>Household crowding (0–14 years, and total population)</p> <p>Nitrogen dioxide concentrations</p>
For more information	For more information on the New Zealand Health Survey, visit the New Zealand Health Survey website: http://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/surveys/current-recent-surveys/new-zealand-health-survey

References	<p>Ministry of Health. 2023. <i>Methodology Report 2022/23: New Zealand Health Survey</i>. Wellington: Ministry of Health.</p> <p>Ministry of Health. 2021. <i>Regional Results 2017-2020: New Zealand Health Survey</i>. Wellington: Ministry of Health.</p> <p>Ministry of Health. 2014. <i>Indicator Interpretation Guide 2013/14: New Zealand Health Survey</i>. Wellington: Ministry of Health.</p>
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