

Information topic	Details
Indicator name	Meningococcal disease notifications in children aged 0–14 years
Domain and topic	Indoor Environment (and Children's Environmental Health) domain: Meningococcal Disease
Indicator definition and units	The number and rate of notifications of meningococcal disease. Rates are presented per 100,000 population.
Data source	National database of notifiable diseases (EpiSurv), from ESR (Institute of Environmental Science and Research Ltd).
Numerator	Number of notifications of meningococcal disease in children aged 0–14 years. Excludes cases that were overseas during the incubation period.
Denominator	<ul style="list-style-type: none"> Notification rate: population estimates (Statistics New Zealand) Notification rate by NZDep: NZDep2018 Index of Deprivation (Atkinson et al 2021).
Methodology	<p>Data collection Cases that had been overseas at some point during the incubation period were excluded from the analysis, as they were unlikely to have contracted the disease within New Zealand.</p> <p>Confidence interval 95% confidence intervals were calculated based on the methodology outlined in APHO (2008). Confidence intervals are presented as vertical bars on graphs.</p> <p>Interpreting graphs 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>When comparing groups of varying population sizes, differences that involve small groups may not be statistically significantly different, compared with similar differences for larger groups. This is due to a higher variability associated with the rate of the small group. For a more detailed explanation of this issue, see Appendix 2 – EHINZ Analytical Toolkit & Glossary.</p> <p>Prioritised ethnic groups have been used, in the following prioritisation order: Māori, Pacific peoples, Asian, European/Other.</p>
Time period and time scale	Annual data, from 2001 to the most recent data available. Serogroup data is not available before 2007.
Population coverage	New Zealand usually resident population aged 0–14 years.
Spatial Coverage	Nationally, with regional results available by district (formerly District Health Board (DHB) areas).
Measures of frequency	Results are presented by year, sex, age group, prioritised ethnicity, NZDep2018 decile, serogroup, urban/rural classification and district.
Limitations of indicator	<ul style="list-style-type: none"> Meningococcal disease is a 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, who notifies the case to the

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	<p>national data collection (EpiSurv) administered by ESR, or directly to EpiSurv for further investigation.</p> <ul style="list-style-type: none"> • Notifications only cover those people who visited a GP or received hospital treatment, and therefore may underestimate the true rate of disease in the population.
Limitations of data source	As above.
Related indicators	<p>Household crowding</p> <p>Second-hand smoke exposure</p> <p>Health burden due to second-hand smoke exposure</p>
For more information	<p>ESR. Meningococcal Disease Reports. Available from https://www.esr.cri.nz/expertise/public-health/infectious-disease-intelligence-surveillance/</p>
References	<p>APHO. 2008. Technical Briefing 3: Commonly used public health statistics and their confidence intervals. York, UK: Association of Public Health Observatories.</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>