

Information topic	Details
Indicator name	<b>Overseas infectious diseases of priority concern to New Zealand</b>
Domain and topic	Border Health
Indicator definition and units	<p>Annual overseas distribution of border health priority disease outbreaks* (classified as a Public Health Emergency of International Concern (PHEIC) and priority notifiable respiratory and vector-borne diseases) with focus on the Asia-Pacific region.</p> <p>*Disease priorities should be identified by annual risk assessment (<i>Jefferies 2016 BHI Development report</i>)</p>
Data source	<ul style="list-style-type: none"> <li>- World Health Organization. Disease Outbreak News (DONs): <a href="https://www.who.int/emergencies/disease-outbreak-news">https://www.who.int/emergencies/disease-outbreak-news</a></li> <li>- World Health Organization. Extranet polio database: <a href="https://extranet.who.int/polio/public/CaseCount.aspx">https://extranet.who.int/polio/public/CaseCount.aspx</a></li> <li>- World Health Organization. The Global Health Observatory, Measles. <a href="https://www.who.int/data/gho/data/indicators/indicator-details/GHO/measles---number-of-reported-cases">https://www.who.int/data/gho/data/indicators/indicator-details/GHO/measles---number-of-reported-cases</a></li> <li>- World Health Organization. Coronavirus (COVID-19) Dashboard: <a href="https://covid19.who.int/">https://covid19.who.int/</a></li> </ul>
Methodology	<ul style="list-style-type: none"> <li>- Global outbreak alerts of priority border health concern: Data were extracted from the WHO GAR dataset for each alert notification for priority diseases over a 5 year period. Data extraction included: disease, country of reported outbreak, earliest reported date of symptom onset for the index case (or date of outbreak alert if symptom onset not reported). Outbreak data were mapped by disease, geographically over time, summarised in tabulated form by disease, year and country of origin.</li> <li>- Polio PHIEC: data extracted from the WHO Extranet polio database. Data extraction included country, year and total cases. Summarised in tabular form.</li> </ul>
Time period and time scale	<ul style="list-style-type: none"> <li>- Annual;</li> <li>- 2000-2021: Poliovirus, MERS and Non-seasonal influenza</li> <li>- 2000-2020: Measles</li> <li>- 2020-2021: COVID-19</li> </ul>
Spatial coverage	<ul style="list-style-type: none"> <li>- Global</li> </ul>
Measures of frequency	<ul style="list-style-type: none"> <li>- Disease type by geographic distribution and year, with focus on priority disease outbreaks reported in the Asia-Pacific region.</li> </ul>

Limitations of indicator	<ul style="list-style-type: none"> <li>- Diseases were prioritised; therefore the indicator may not detect a new or emerging disease which becomes a priority threat. However, changing priorities should be detected in annual risk assessment.</li> <li>- Data utilises cases reported to WHO by national health organisations and may be subject to under-reporting. As has been suggested for multiple global epicentres of COVID-19 (Lau 2021).</li> </ul>
Limitations of data sources	<ul style="list-style-type: none"> <li>- WHO DONs: As per limitation of indicator noted above. It is also limited by whether countries report certain outbreaks to the WHO.</li> <li>- No currently available regional Asian outbreak reporting system.</li> <li>- International under-reporting of diseases is expected, particularly among developing countries.</li> </ul>
Created by	Environmental Health Intelligence New Zealand, Centre for Public Health Research, Massey University, Wellington
Related indicators	<ul style="list-style-type: none"> <li>- Exotic diseases of concern to New Zealand.</li> <li>- Exotic mosquito species established in New Zealand.</li> <li>- High-risk insects caught at the New Zealand border.</li> <li>- Mosquito-borne disease in New Zealand.</li> </ul>
For more information	WHO DONs: <a href="http://www.who.int/csr/resources/publications/en/">http://www.who.int/csr/resources/publications/en/</a>
References	<ul style="list-style-type: none"> <li>- Lau H, Khosrawiour T, Kocbach P et al. 2021. Evaluating the massive underreporting and undertesting of COVID-19 cases in multiple global epicenters. <i>Pulmonology</i>: 27(2): 110-115. DOI: <a href="https://doi.org/10.1016/j.pulmoe.2020.05.015">https://doi.org/10.1016/j.pulmoe.2020.05.015</a> (accessed 20 July 2022)</li> <li>- WHO. 2022a. Extranet polio database. Geneva: World Health Organisation. URL: <a href="https://extranet.who.int/polio/public/CaseCount.aspx">https://extranet.who.int/polio/public/CaseCount.aspx</a> (accessed 18 January 2022).</li> <li>- WHO. 2022b. The Global Health Observatory, Measles. Geneva: World Health Organisation. URL: <a href="https://www.who.int/data/gho/data/indicators/indicator-details/GHO/measles---number-of-reported-cases">https://www.who.int/data/gho/data/indicators/indicator-details/GHO/measles---number-of-reported-cases</a> (accessed 19 January 2022).</li> <li>- WHO. 2022c. WHO Coronavirus (COVID-19) Dashboard. Geneva: World Health Organisation. URL: <a href="https://covid19.who.int/">https://covid19.who.int/</a> (accessed 18 January 2022).</li> <li>- WHO. 2022d. Disease Outbreak News (DONs). Geneva: World Health Organisation. URL: <a href="https://www.who.int/emergencies/disease-outbreak-news">https://www.who.int/emergencies/disease-outbreak-news</a> (accessed 18 January 2022)</li> </ul>