

Information topic	Details
Indicator name	Annual average nitrogen dioxide concentration at monitoring stations
Domain and topic	Air quality: Other air pollutants
Indicator definition and units	Annual average nitrogen dioxide concentrations (in $\mu\text{g}/\text{m}^3$) at monitoring sites, including background urban, local road, and state highway sites.
Data source	<ul style="list-style-type: none"> - Ministry for the Environment - Statistics New Zealand - New Zealand Transport Agency (NZTA). Ambient air quality monitoring network annual report. Available online: https://www.nzta.govt.nz/resources/air-quality-monitoring/ (accessed February 2017)
Numerator	Number of nitrogen dioxide monitored sites that met the World Health Organization's guideline ($40\mu\text{g}/\text{m}^3$ as an annual average concentration) (Ministry for the Environment and Statistics New Zealand 2014)
Denominator	Number of nitrogen dioxide sites that were monitored.
Time period and time scale	Calendar year based on the NZTA reporting; from 2007 onwards
Spatial coverage	All sites that were reported by NZTA.
Measures of frequency	<ul style="list-style-type: none"> - Number of nitrogen dioxide monitored sites that exceeded the annual WHO guideline - Annual average concentrations at monitored sites - Annual average concentrations, by type of monitoring site (i.e. background urban, state highway and local road sites)
Limitations of indicator	<ul style="list-style-type: none"> - Only sites that have nitrogen dioxide concentration monitored will be reported. - The population coverage of the monitoring sites is unknown, meaning a national representative average cannot be compiled.
Limitations of data source	The NZTA monitoring network uses a screening method, so provide a good indication of NO_2 concentrations. However, the results cannot be compared directly to WHO long-term guidelines and it cannot definitively say a site exceeded the guideline.

<p>Related indicators</p>	<ul style="list-style-type: none"> - Annual average PM₁₀ levels at monitoring stations - Exceedances of the daily national standard for PM₁₀, including maximum PM₁₀ levels - Monitoring sites exceeding the WHO daily guideline for sulphur dioxide - Sulphur dioxide 1-hour maximum levels at monitored sites - Carbon monoxide 8-hour maximum levels at monitored sites - Number of motor vehicles in New Zealand, by type (including diesel) - Number of light vehicles per 1000 population - Average age of vehicle fleet
<p>Created by</p>	<ul style="list-style-type: none"> - Ministry for the Environment - Statistics New Zealand - NZTA
<p>For more information</p>	<p>Ministry for the Environment: http://www.mfe.govt.nz/publications/environmental-reporting/environment-aotearoa-2015 (accessed April 2017)</p> <p>Statistics New Zealand: http://www.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/environmental-indicators/Home.aspx (accessed April 2017)</p> <p>New Zealand Transport Agency: Ambient air quality monitoring network annual report. Available online: https://www.nzta.govt.nz/resources/air-quality-monitoring/ (accessed April 2017)</p>
<p>References</p>	<p>Ministry for the Environment and Statistics New Zealand. (2014). <i>New Zealand's Environmental Reporting Series: 2014 Air domain report</i>. Available from www.mfe.govt.nz and www.stats.govt.nz</p>