

Information topic	Details
Indicator name	Main types of home heating used
Domain and topic	Indoor environment – Home heating Air quality – Wood and coal fires
Indicator definition and units	<p>Number and percentage of private occupied dwellings by main types of heating used.</p> <p>Main types of heating used measures the types of heating that are used most often to heat a dwelling. It indicates the appliances used and, in most cases, the fuels used (e.g., heat pump, fixed gas heater, or wood burner). Heating types are excluded if they are: used only very rarely, available but not used or disconnected or broken.</p> <p>The main types of heating used data does not indicate how many heating appliances of each type were used in a dwelling. For example, it does not indicate the number of heat pumps used, or whether one electric heater or multiple electric heaters were used. Each type of heating reported was recorded once only.</p>
Data source	New Zealand Census of Population and Dwellings, Stats NZ
Numerator	Number of occupied private dwellings using a specific main type of heating
Denominator	Number of occupied private dwellings with a known main heating type in 2023 (i.e. Total stated). 'Total stated' is the total number of responses excluding any unknowns.
Methodology	<p>The 2023 Census dwelling form asked the following question: <i>Mark as many spaces as you need to show which types of heating are used most often in this dwelling.</i></p> <ul style="list-style-type: none"> - Heat pump - Electric heater (including bar, panel, oil-filled or fan) - Fixed gas heater - Portable gas heater - Wood burner - Pellet fire - Coal burner - Other - Don't use any form of heating <p>Respondents could mark more than one type of heating. Each selected type is recorded once per dwelling, regardless of how many appliances of that type were present.</p> <p>Percentages for private dwellings using main types of heating have been calculated using the number of dwellings that provided a valid response to the heating question ('total</p>

	<p>stated').</p> <p>The 2018 and 2023 Censuses had a lower-than-expected response rates, resulting in missing data (unknown) for some people, households and dwellings. We therefore present the lower and upper logical bounds of what the percentage could be, allowing for the missing data. The lower bound is calculated as the count among the total value, whereas the upper bound is calculated as the sum of the count and unknowns among the total value.</p>
Time period and time scale	Census years (2018, 2023)
Population coverage	<p>Results for this indicator are based on occupied private dwellings that provided a response to the heating question in the 2023 Census. Non-private dwellings, such as those providing communal or transitory accommodation for reasons of employment, study, special need, legal requirement, or recreation, are excluded from this indicator.</p> <p>Dwellings that were unoccupied on Census night or that did not provide a valid response to the heating question are also excluded.</p>
Spatial Coverage	National, health district (formerly district health board)
Measures of frequency	Percentage of occupied private dwellings using each main type of heating, by health district and nationally.
Limitations of indicator	The change from asking about "all types of heating ever used" in the 2013 Census to "main types of heating used" in the 2018 and 2023 Censuses affects the comparability of data over time, particularly for historical analysis. This limits the ability to track long-term trends or compare current data to older datasets.
Limitations of data source	<p>Stats NZ has rated the data quality for main types of heating used as moderate, due to a high level of 'No information' responses.</p> <p>The high level of missing data may impact the overall accuracy of the results, potentially leading to underrepresentation of certain heating types.</p> <p>Some regions, particularly those affected by severe weather events in 2023, saw higher rates of non-response. This can lead to a bias in the data, as areas with high non-response may have different heating patterns that are not captured in the census.</p>
Related indicators	<ul style="list-style-type: none"> - Lower respiratory tract infections - Asthma - Dampness and mould

Metadata

	- Particulate matter
References	Stats NZ. 2023. <i>Heating – 2023 Census – Stats NZ DataInfo+</i> . URL: Heating - 2023 Census - Stats NZ DataInfo+