

Living in damp dwellings

This report presents statistics about people living in damp dwellings in Aotearoa New Zealand, from the 2023 Census. Damp dwelling raises the risk of respiratory illness and negatively impacts health and wellbeing.

Key facts

- In 2023, 20.6% of New Zealanders (859,137 people) lived in damp dwellings, a decrease from 24.1% in 2018.
- Severely damp dwellings affected 2.8% (117,045 people) of the population in 2023.
- Over a quarter of children (0–14 years) (26.0%) and young adults (15–29 years) (26.2%) lived in damp dwellings.
- In 2023, the rate of people living in damp dwellings was higher among Pacific peoples (39.0%) and Māori (35.1%).
- In 2023, Tairāwhiti health district had the highest percentage of its population living in damp houses (35.8%), followed by Northland district (28.8%).

Damp dwellings increase the risk of respiratory illness

Dampness in buildings is associated with respiratory illness. Dwelling dampness increases the risk of cough, wheeze, and [asthma](#), particularly among vulnerable groups such as children, older adults, and people with pre-existing respiratory conditions (Bornehag et al 2004, WHO 2009, Ingham 2019). Living in damp dwellings also increased sleep problems among school children (Janson et al 2005). Evidence suggests that there is a positive association between residential dampness and poor mental health outcomes (Gatto et al 2024).

Dampness provides ideal conditions for mould growth in dwellings (Du et al 2021). Quantitative studies have found an association between living in damp or mouldy dwellings and psychological outcomes such as stress, depression, anxiety, and poor overall mental wellbeing (Brooks et al 2025). Several international reports have highlighted the connection between inadequate heating, damp, cold, and mouldy dwellings and poor health outcomes (Leardini et al 2010).

The Healthy Housing Initiative (2009), along with the Healthy Homes Standards regulations (2019), has provided practical interventions—such as heating, insulation, and education for families at risk of housing-related illness—that improve the warmth and dryness of homes, reduce respiratory illness, and support better mental health (Chisholm et al 2024). These standards may have contributed to improved housing quality, as census data shows a decline in the number of people living in damp and mould dwellings in 2023 compared to 2018.

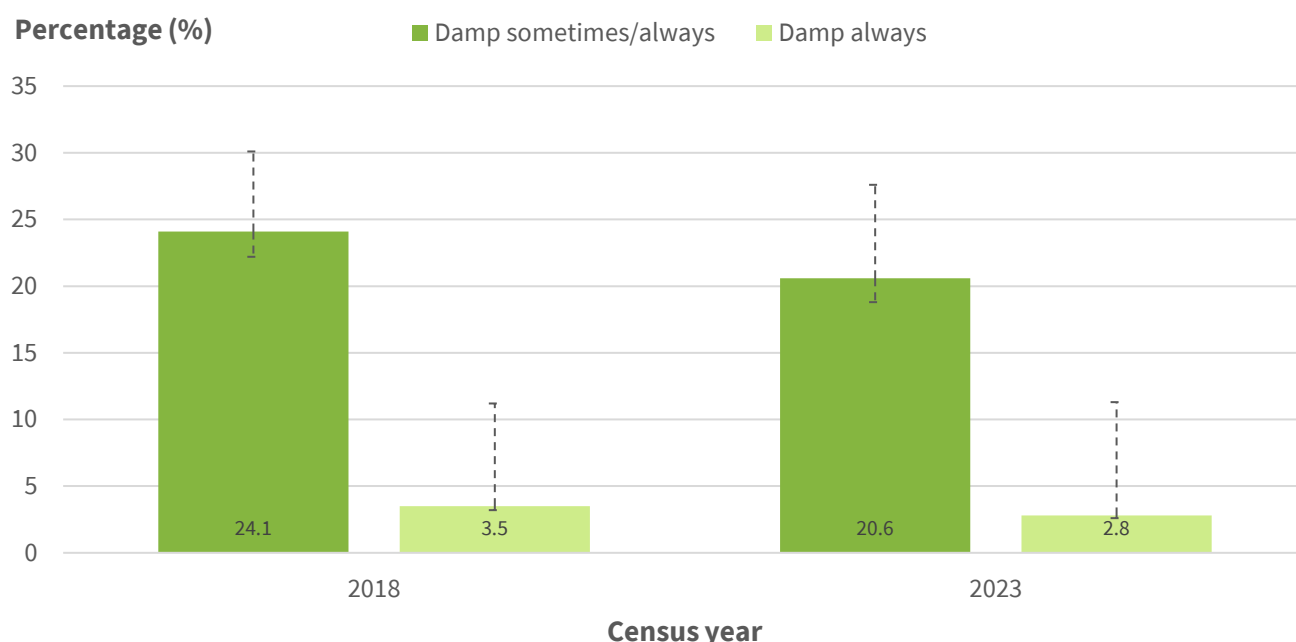
EHINZ surveillance reports on populations living in mouldy dwellings and home heating also offer valuable information on the relationship between dwelling conditions and health outcomes.

One in five New Zealanders live in damp dwellings

In 2023, 20.6% (logical bound 18.8–27.6) of New Zealanders (859,137 people) lived in dwellings that were damp (sometimes or always), including 2.8% of people (117,045) living in dwellings considered severely damp (always damp).

The percentage of people living in damp dwellings has decreased by 3.5 percentage points from the previous census year, dropping from 24.1% (22.2–30.2) in 2018 (Figure 1).

Figure 1: Percentage of people living in damp dwellings, total, by census year



Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars.

Source: Stats NZ 2023 not sure what the horizontal line designates?

Children and young adults have the highest rates of living in damp dwellings

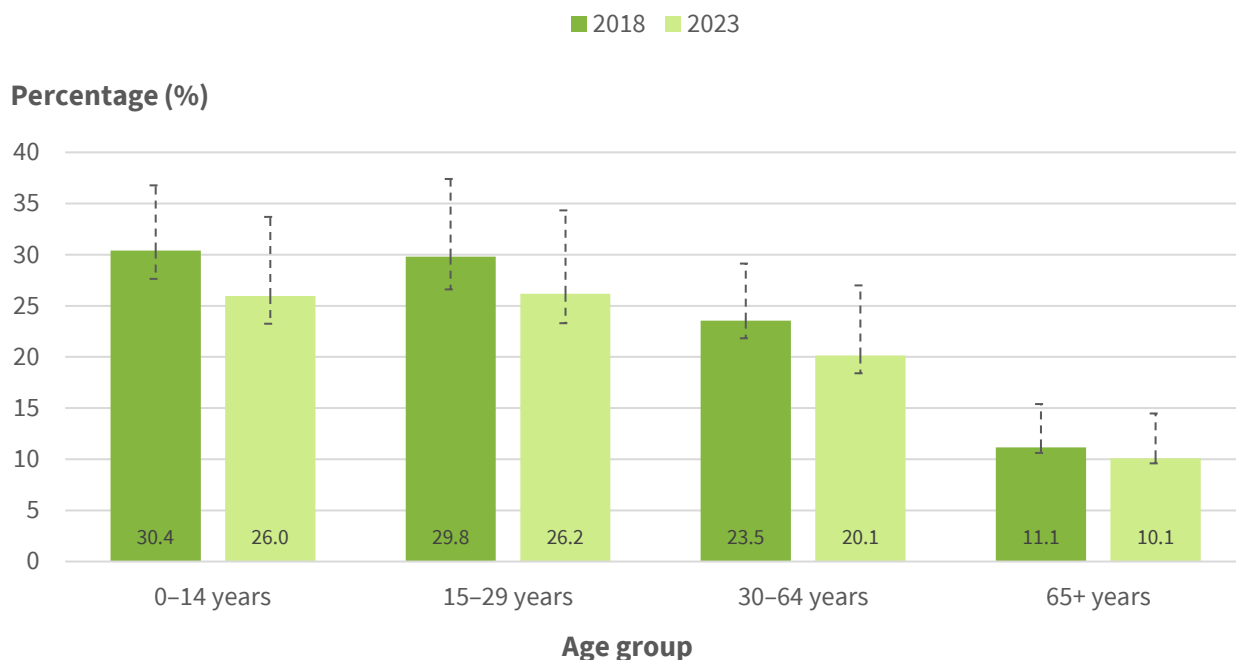
Children and young adults experienced notably higher rates of living in dwellings that were damp either sometimes or always.

In 2023, 26.0% (23.2–33.7) of children aged 0–14 years lived in damp dwellings. This represents a decrease from 30.4% (27.6–36.8) in 2018, a decline of 4.4 percentage points over five years.

The 15–29 years age group had the highest percentage of people living in damp dwellings in 2023, at 26.2% (23.3–34.3). This represents a 3.6 percentage point decrease from 2018, when 29.8% (26.6–37.4) of people

in this age group lived in damp dwellings (Figure 2).

Figure 2: Percentage of people living in damp dwellings by age group, by census year



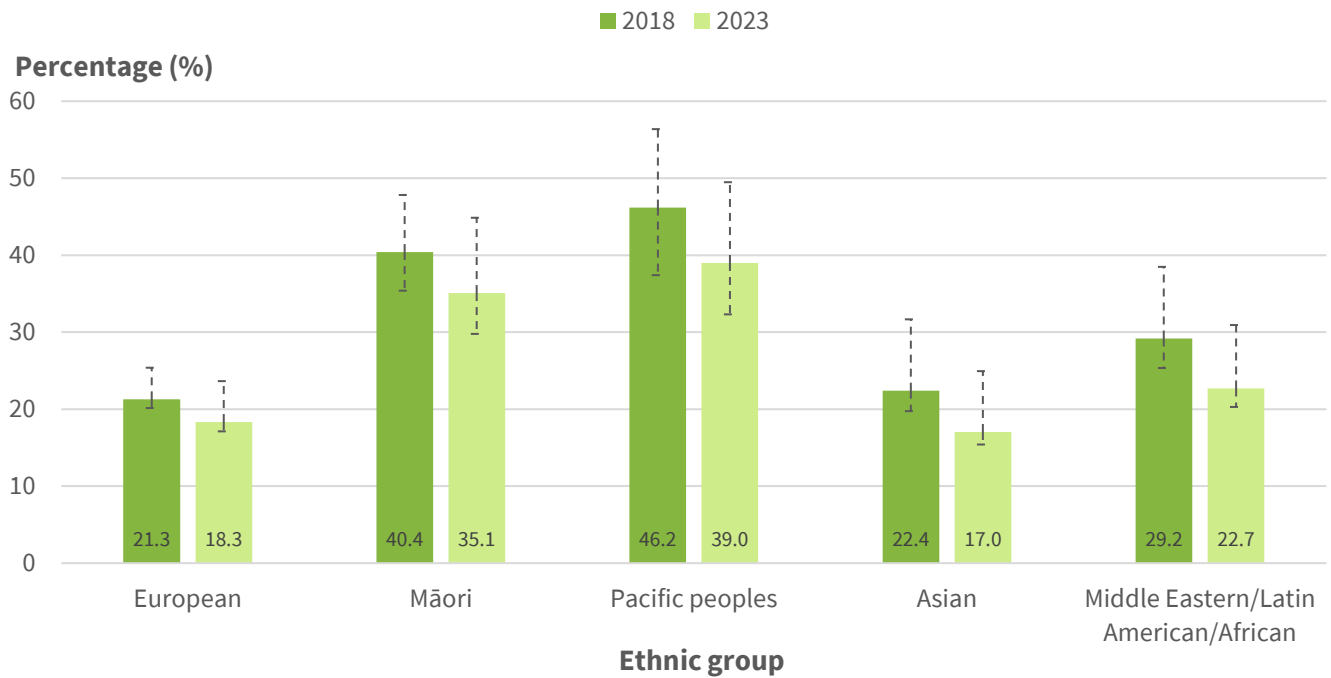
Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars.

Source: Stats NZ 2023

Pacific and Māori populations experience higher rates of living in damp dwellings

In 2023, Pacific peoples and Māori experienced relatively high rates of living in damp dwellings. Almost two in five (39.0%, 32.3–49.5) Pacific peoples and over one-third (35.1%, 29.8–44.9) of Māori lived in dwellings that were damp (sometimes or always) (Figure 3). This reflects a decrease from 2018, when 46.2% (37.4–56.4) of Pacific peoples and 40.4% (35.4–47.8) of Māori lived in damp dwellings. Pacific peoples experienced a drop of 7.2 percentage points, while the percentage for Māori declined by 5.3 percentage points (Figure 3).

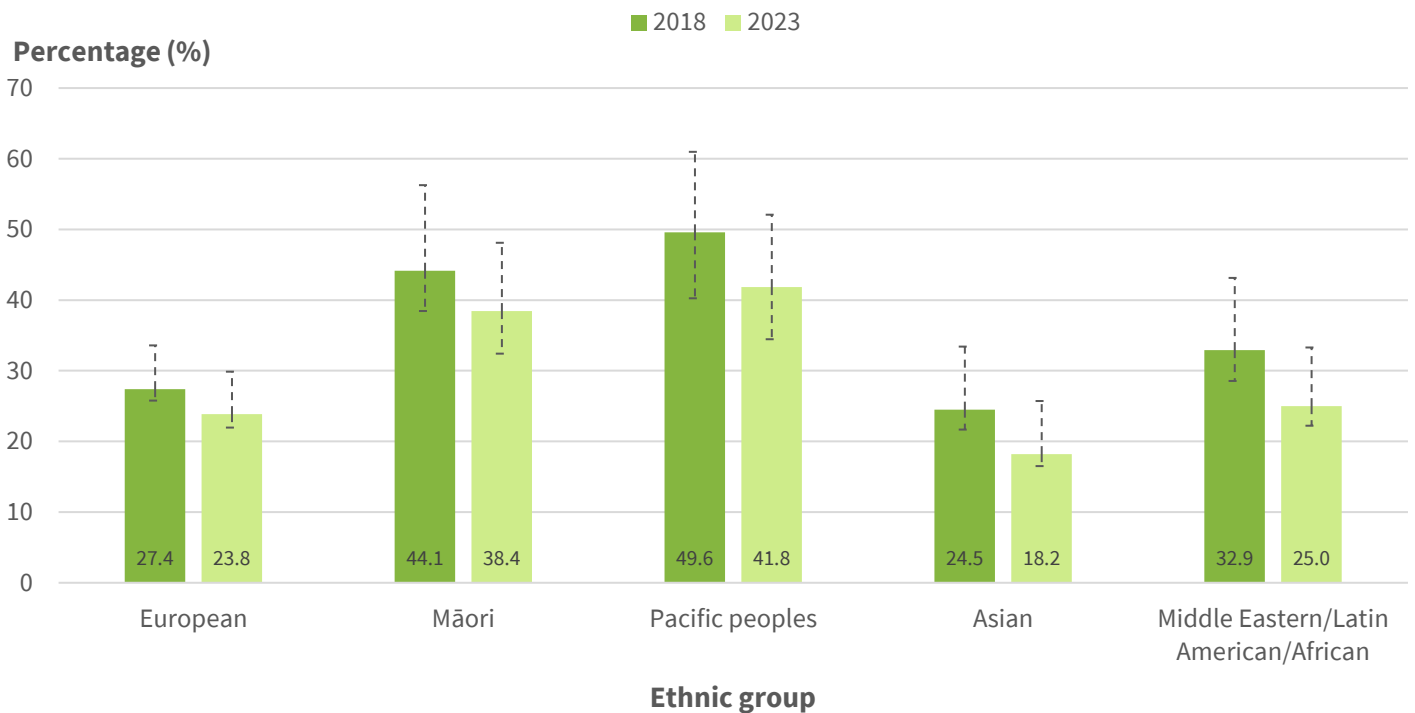
Figure 3: Percentage of people living in damp dwellings, by ethnic group (total response), by census year



Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars. Total response ethnic groups have been used, so each ethnic group includes everyone who identified as that ethnic group. This means ethnic groups may overlap, and should not be directly compared.
 Source: Stats NZ 2023

Among children aged 0–14 years, Māori and Pacific children had notably high rates of living in damp dwellings. In 2023, 41.8% (34.5–52.1) of Pacific children lived in damp dwellings, a decrease of 7.8 percentage points since 2018. The percentage of Māori children living in damp dwellings also has declined, from 44.1% (38.5–56.3) in 2018 to 38.4% (32.5–48.1) in 2023, a drop of 5.7 percentage points (Figure 4).

Figure 4: Percentage of children aged 0–14 years living in damp dwellings by ethnic group, by census year



Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars. Total response ethnic groups have been used, so each ethnic group includes everyone who identified as that ethnic group. This means ethnic groups may overlap, and should not be directly compared.

Source: Stats NZ 2023 why two graphs and the horizontal line?

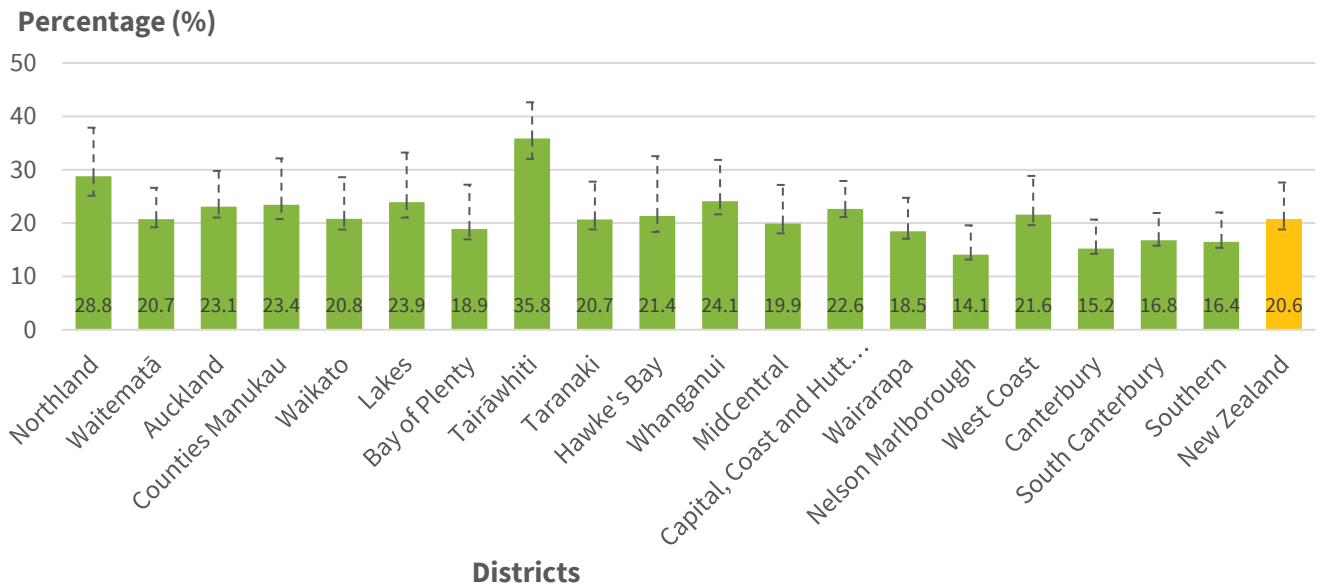
Variation in damp dwellings across health districts

In 2023, Tairāwhiti district (formerly district health board) recorded the highest percentage of its population living in damp dwellings, with 35.8% (32.0–42.6) of their residents reporting their homes were damp either sometimes or always. This means that more than one in three people in the district lived in a damp dwelling. The rate is much higher than the national rate of 20.6% (18.8–27.6) (Figure 5).

In 2023, the overall percentage of people living in damp dwellings in the North Island was 22.2% (20.1–29.6), notably higher than the rate of 15.7% (14.7–21.2) in the South Island.

Cyclone Gabrielle occurred just a few weeks before the 2023 census, and some regions in the North Island were severely affected. As stated by Stats NZ, this may have influenced the percentage of people reporting that they lived in damp dwellings, as they may have been experiencing dampness at the time of the census.

Figure 5: Percentage of people living in damp dwellings, by district, 2023



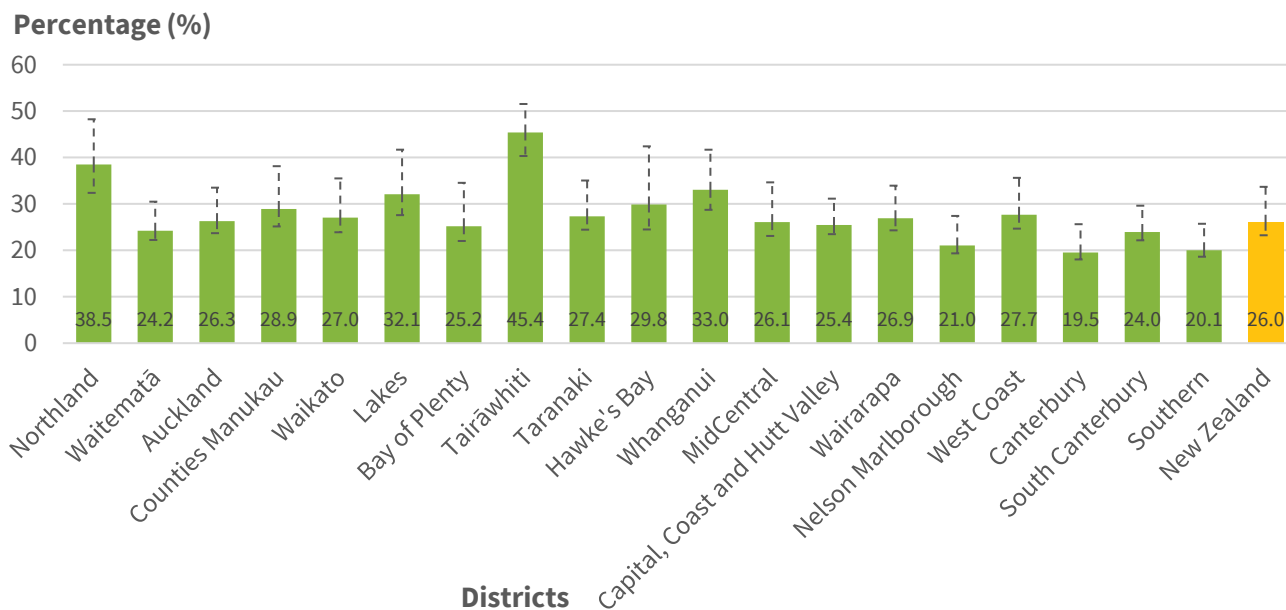
Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars.

Source: Stats NZ 2023

Among children aged 0–14 years, more than two in five children lived in damp dwellings in the Tairāwhiti district (45.4%, 40.3–51.5), the highest rate in the country. This was followed by Northland, where 38.5% (32.4–48.2) of children lived in damp dwellings (Figure 6).

The rates for children in Waitematā, Bay of Plenty, Capital, Coast and Hutt Valley, Nelson Marlborough, Canterbury, South Canterbury and Southern districts were all below the national rate of 26.0% (23.2–33.7).

Figure 6: Percentage of children aged 0–14 years living in damp dwellings, by district, 2023



Note: Logical bounds indicate the range within which the actual percentage falls, accounting for some missing data. These ranges are displayed as vertical bars.

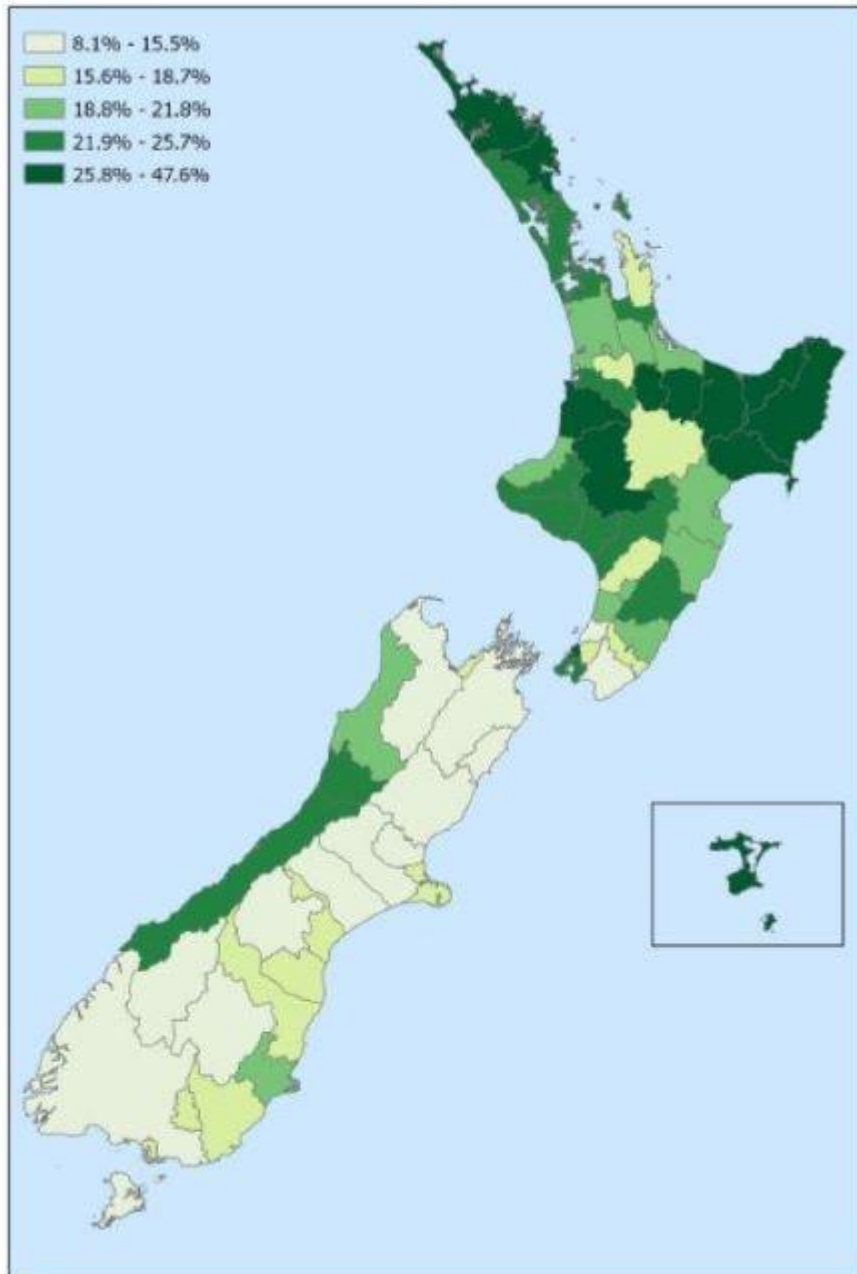
Source: Stats NZ 2023

Higher rates of damp housing in the North Island

In 2023, the North Island clearly had a noticeably higher concentration of areas with higher percentage of people living in damp housing, with several territorial authorities (TAs) — Far North, Waitomo, Kawerau, Ōpōtiki, Gisborne, Wairoa, and Chatham Islands — reporting rates exceeding 31.0% (Figure 7).

Notably, only 2 out of 67 TAs (Gisborne and Napier) recorded an increase in the percentage of people living in damp housing compared to 2018. These areas were among those most affected by Cyclone Gabrielle, which likely contributed to the higher rates of reported dampness.

Figure 7: Percentage of people living in damp dwellings, by territorial authority (TA), 2023



Source: Stats NZ 2023

Data for this indicator

Data for this indicator comes from the New Zealand 2023 Census of Population and Dwellings (Aotearoa Data Explorer). Further information on the data quality of the 2023 Census is available on the [2023 Census](#) page.

Dwelling dampness indicates whether an occupied private dwelling is not damp (dry throughout) or the degree to which it is damp – sometimes damp or always damp. Dampness is defined as when a dwelling feels or smells damp or has damp patches on the wall, ceiling, floor, or window frames.

The 2023 Census data for this variable includes some missing or invalid responses. To address this, logical bounds are used to show the possible range of values for the percentage, based on the available responses. However, it's important to note that the total population used in this calculation is lower than the actual census population, as it excludes individuals in non-private dwellings and those not captured in household data. Therefore, the bounds should be interpreted as indicative rather than comprehensive, as they account for some, not all, of the missing data. Further information is available on the [Families and households in the 2023 Census: Data sources, methodology, and data quality](#) document from Stats NZ.

It is worth mentioning that a few weeks before 2023 census data collection, Cyclone Gabrielle impacted several regions in New Zealand. This may have affected the level of dampness and mould in some dwellings within the affected areas.

Similar information can be found in living in [mouldy dwellings surveillance](#) report.

For additional information, see the [Metadata](#) sheet.

References

Bornehag, C.G., Sundell, J., Bonini, S., Custovic, A., Malmberg, P., Skerfving, S., Sigsgaard, T. and Verhoeff, A., 2004. *Dampness in buildings as a risk factor for health effects, EUROEXPO: a multidisciplinary review of the literature (1998-2000) on dampness and mite exposure in buildings and health effects*. INDOOR AIR-COPENHAGEN-, 14, pp.243-257.

Brooks, S.K., Patel, S.S., Weston, D. and Greenberg, N., 2025. *Psychological effects of mould and damp in the home: scoping review*. *Housing studies*, 40(2), pp.323-345.

Chisholm E, Logan A, Aspinall C, Davies C, Howden-Chapman P, Johnson E, Pierse N. "Freedom to move through the house": How a healthy housing initiative improves quality of life in Aotearoa New Zealand. *Australian and New Zealand Journal of Public Health*. 2024 Oct 1;48(5):100190.

Du, C., Li, B. and Yu, W., 2021. *Indoor mould exposure: characteristics, influences and corresponding associations with built environment—a review*. *Journal of Building Engineering*, 35, p.101983.

Gatto, M.R., Mansour, A., Li, A. and Bentley, R., 2024. *A State-of-the-Science Review of the Effect of Damp-and Mold-Affected Housing on Mental Health*. *Environmental Health Perspectives*, 132(8), p.086001.

Ingham T, Keall M, Jones B, Aldridge DR, Dowell AC, Davies C, Crane J, Draper JB, Bailey LO, Viggers H, Stanley TV. *Damp mouldy housing and early childhood hospital admissions for acute respiratory infection: a case control study*. *Thorax*. 2019 Sep 1;74(9):849-57.

Janson, C., Norbäck, D., Omenaas, E., Gislason, T., Nyström, L., Jögi, R., Lindberg, E., Gunnbjörnsdóttir, M., Norrman,

E., Wentzel-Larsen, T. and Svanes, C., 2005. *Insomnia is more common among subjects living in damp buildings*. Occupational and environmental medicine, 62(2), pp.113-118.

Leardini, P.M. and Van Raamsdonk, T., 2010, May. *Design for airtightness and moisture control in New Zealand housing*. In Proceedings of the New Zealand Sustainable Building Conference, Wellington, New Zealand (Vol. 2628).

WHO. 2009. *WHO guidelines for indoor air quality: dampness and mould*. World Health Organization. Regional office for Europe. URL: <https://iris.who.int/handle/10665/164348>.

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