

# Melanoma cancer registrations

This report presents information about rates of melanoma registrations in Aotearoa New Zealand.

## Key facts

- In 2022, there were 3,116 registrations of melanoma in New Zealand. The age-standardised melanoma registration rate was 37.3 per 100,000 people, compared to 35.1 in 2021.
- Melanoma registration rates were highest in males, people of European/Other ethnicity, and older adults, especially for people aged 75 years and over.
- Melanoma registration rates continue to be lower in the most deprived areas (NZDep2018 quintile 5) than in the least deprived areas.
- Melanoma registration rates were higher in rural areas compared with main urban areas.
- The Waitematā, Northland, and Wairarapa districts had high rates of melanoma in 2022.

## Overexposure to UV radiation is the main environmental risk factor for melanoma

Melanoma is a serious form of skin cancer, and, together with Australia, New Zealand has the highest rates in the world (Wild et al 2020). In 2022, there were 3,116 registrations of melanoma in New Zealand. Melanoma was the third most commonly registered cancer in 2020 for males (behind prostate cancer and colorectal cancer) and for females (behind breast and colorectal cancer) (Te Whatu Ora 2023).

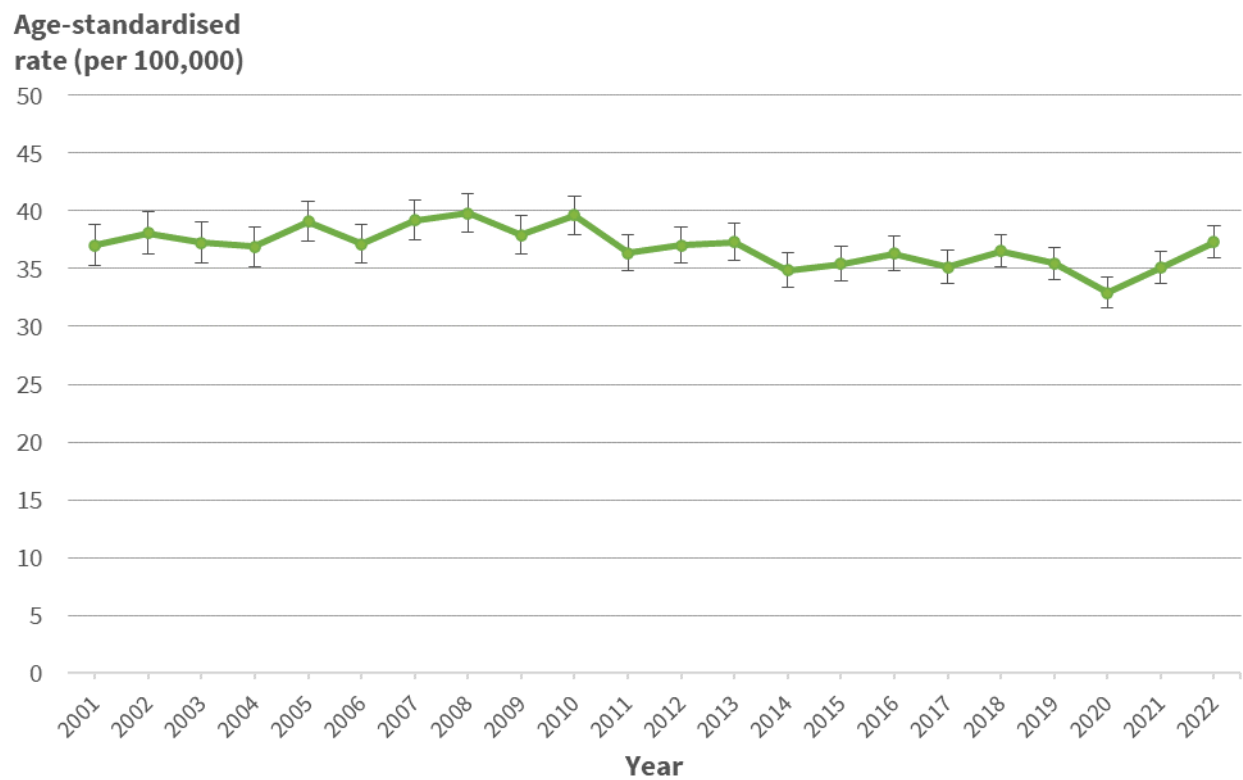
Overexposure to UV radiation from the sun is the main environmental risk factor for melanoma. It has been estimated that more than 90% of all melanoma cases in New Zealand can be attributed to UV radiation exposure (Arnold 2018). The following factors increase the risk of melanoma:

- Unprotected exposure to sunlight
- Sunburn at any age increases the risk of melanoma in later life (particularly risky for childhood sunburns)
- Family history of melanoma
- Fair skin and red, blonde or fair hair
- Use of sunbeds or sunlamps
- A skin type that burns or freckles easily
- Many moles or large moles (more than 50)
- Lowered immunity from some diseases or some medications.

## Overall melanoma registration rates have stayed stable since 2001

In 2022, the age-standardised melanoma registration rate was 37.3 per 100,000 (95%CI 35.9–38.7), compared to 35.1 per 100,000 (95%CI 33.7–36.5) in 2021. The melanoma registration rate has been largely stable since 2001 (37.0 per 100,000, 95%CI 35.3–38.8) (Figure 1).

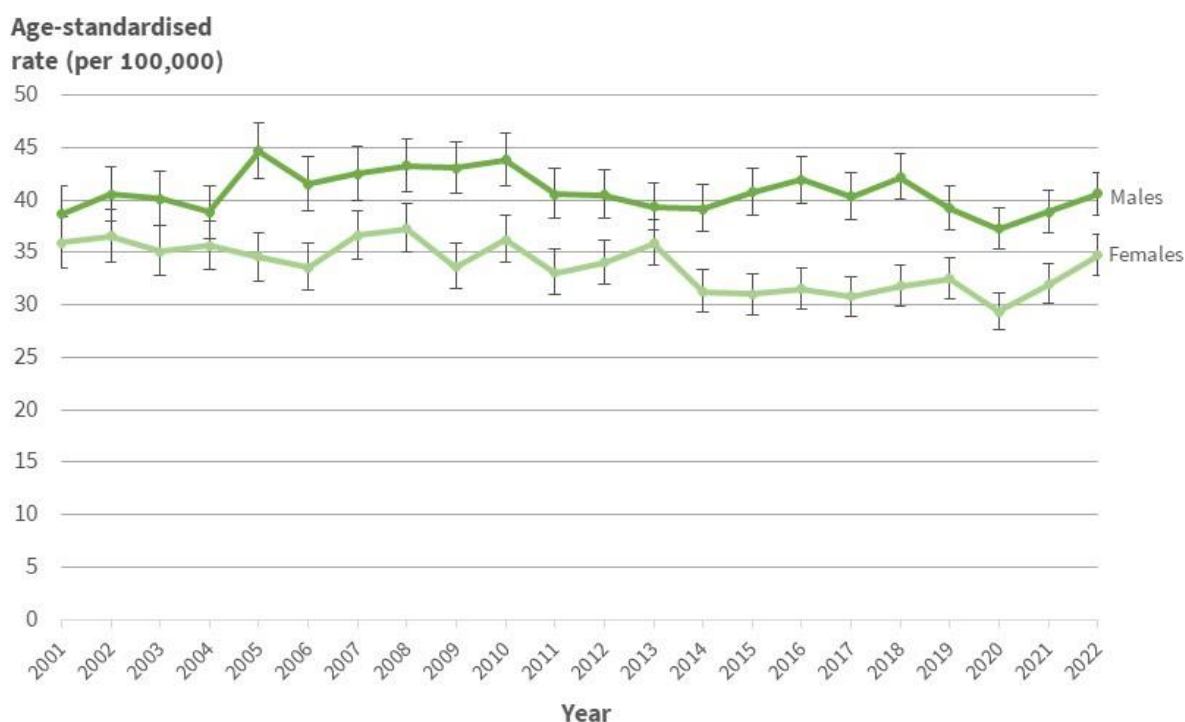
**Figure 1: Melanoma registrations, 2001–2022 (age-standardised rate per 100,000)**



Note: 95% confidence intervals have been presented as vertical bars.  
Source: New Zealand Cancer Registry 2023

The melanoma registration rate has remained consistently higher for males than females over the past 20 years (Figure 2). In 2022, the age-standardised melanoma registration rate was 40.6 per 100,000 (95%CI 38.6–42.6) for males, which was 20% higher than the rate for females of 34.7 per 100,000 (95%CI 32.8–36.7).

**Figure 2: Melanoma registrations, by sex, 2001–2022 (age-standardised rate per 100,000)**



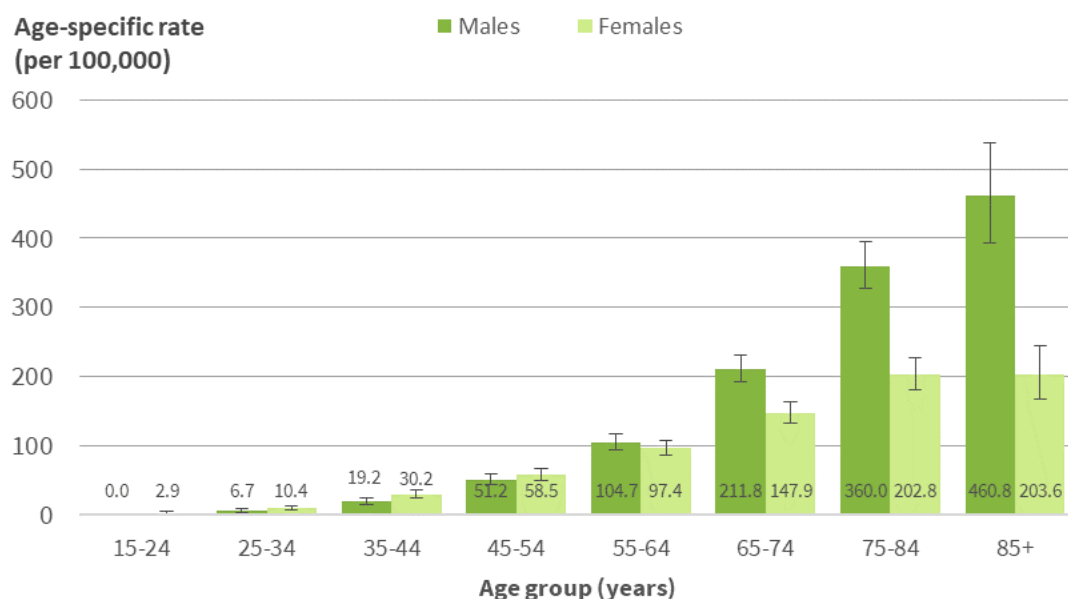
Note: 95% confidence intervals have been presented as vertical bars.

Source: New Zealand Cancer Registry 2023

## Males and older adults were most affected by melanoma

Melanoma is a type of skin cancer that predominately affects older people. In keeping with this, melanoma registration rates are higher in the older age groups (Figure 3). In 2022, the age-specific rates for men and women were similar up to the 55–64 years age group. For older age groups, males were more likely than females to be diagnosed with melanoma. By age 85 years and over, males were more than twice as likely as females to be diagnosed with melanoma. This difference is likely due to a combination of behavioural and biological factors (BPAC 2020).

**Figure 3: Melanoma registrations, by age group and sex, 2022 (age-specific rate per 100,000)**



Note: 95% confidence intervals have been presented as vertical bars.

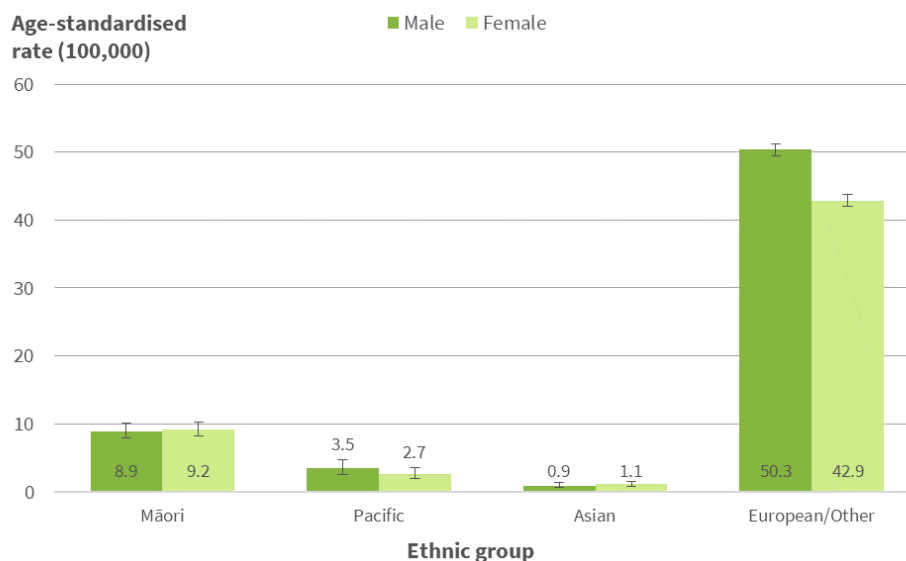
Source: New Zealand Cancer Registry 2023

## Melanoma rate among European/Other ethnic group was five times the rate among Māori

In 2022, almost all melanoma cancer registrations were for people of European/Other ethnicity (2,981 out of 3,116 registrations, or 95.7%). Only a small number of registrations were among Māori (81 registrations), Pacific people (16 registrations) and Asian (8 registrations) ethnic groups.

After standardising for age, the 10-year aggregated rate for European/Other ethnicity was 50.3 per 100,000 (95%CI 49.4–51.2) for males and 42.9 per 100,000 (95%CI 42.0–43.8) for females. These rates are many times higher than those of other ethnic groups (Figure 4). This difference in rates between ethnic groups has been consistent over time.

**Figure 4: Melanoma registrations, by sex and ethnic group (prioritised), 10 years grouped 2013–22 (age-standardised rate per 100,000)**



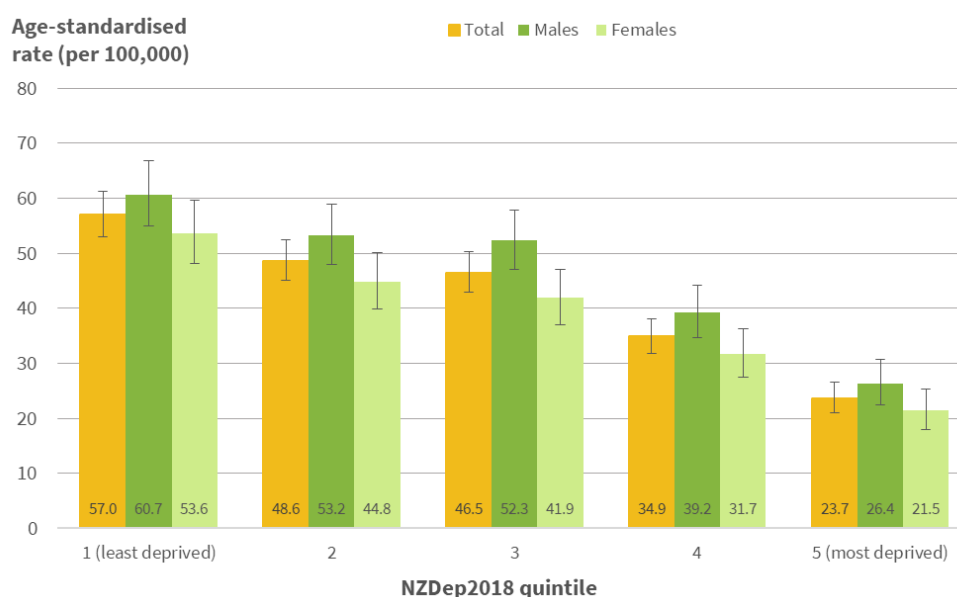
Note: 95% confidence intervals have been presented as vertical bars.

Source: New Zealand Cancer Registry 2023

## Lower melanoma registration rates in the most deprived areas

In 2022, the melanoma registration rate was lower in the most deprived NZDep2018 quintile (quintile 5) than in other quintiles, and this trend has been consistent since 2001 (Figure 5). After standardising for age, people in the least deprived areas (quintile 1) were more than twice as likely to have been diagnosed with melanoma as those in the most deprived areas (quintile 5) (rate ratio 2.4, 95%CI 2.1–2.8).

**Figure 5: Melanoma registrations, by area deprivation quintiles (NZDep2018), 2022 (age-standardised rate per 100,000)**



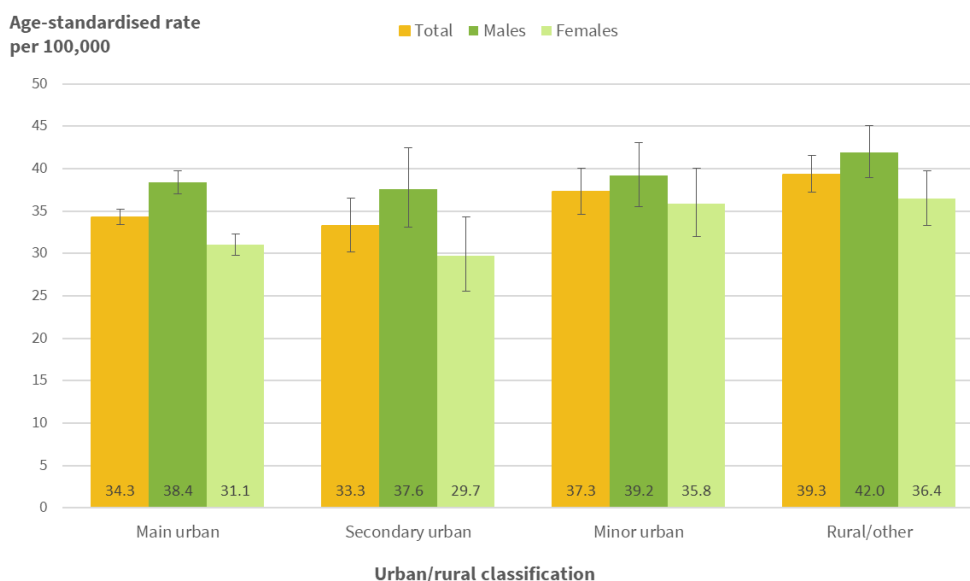
Note: 95% confidence intervals have been presented as vertical bars.

Source: New Zealand Cancer Registry 2023

## Melanoma registration rates were higher in rural areas

Total melanoma registration rates for 2020–22 were higher in rural areas (39.3 per 100,000, 95%CI 37.2–41.6) than in main urban areas (34.3 per 100,000, 95%CI 33.3–35.2) (Figure 6).

**Figure 6: Melanoma registrations, by sex and urban/rural classification, 3 years grouped 2020-22 (age-standardised rate per 100,000)**

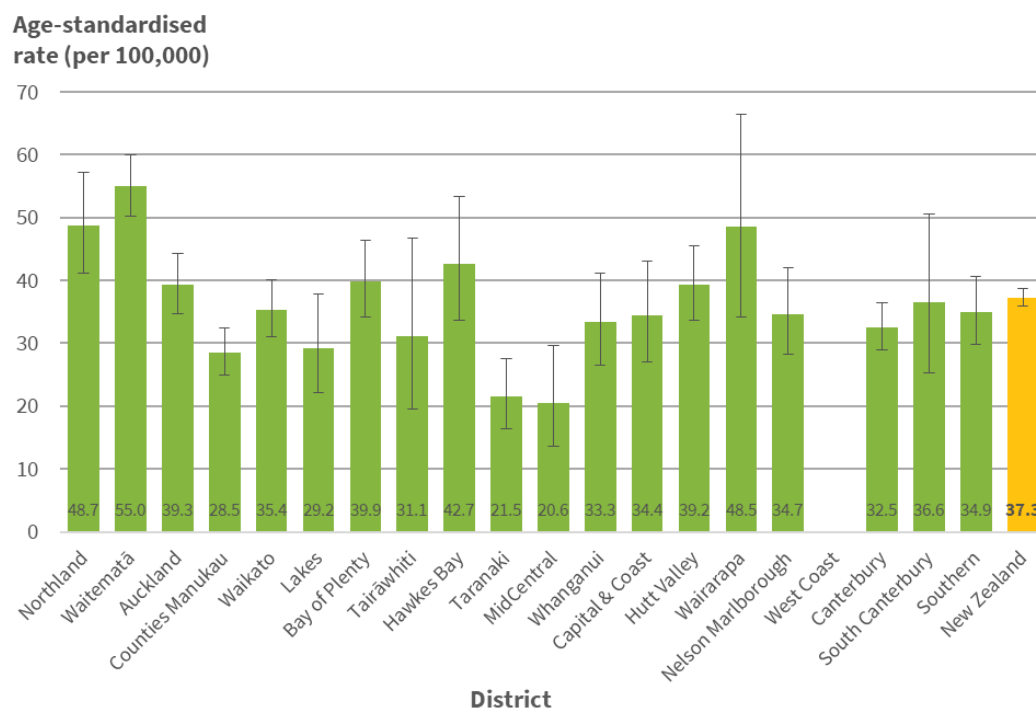


Note: 95% confidence intervals have been presented as vertical bars. The Statistics New Zealand urban-rural classification for 2013 has been used. Main urban areas are major towns and cities with a population of 30,000 or more. Secondary urban areas are smaller towns of 10,000–29,999 people. Minor urban areas are towns with a population of 1,000–9,999. Rural areas include rural centres and rural areas outside of these. Source: New Zealand Cancer Registry 2023

## Waitematā district had a high rate of melanoma registrations

In 2022, the Waitematā district had a high rate of melanoma registrations (55.0 per 100,000, 95%CI 50.3–60.0). Northland (48.7 per 100,000, 95%CI 41.1–57.2) and Wairarapa (48.5 per 100,000, 95%CI 34.1–66.4) rates were also high. Whanganui had a low rate (20.6 per 100,000, 95%CI 13.6–29.6) (Figure 7).

**Figure 7: Melanoma registrations, by district, 2022 (age-standardised rate per 100,000)**



Notes: 95% confidence intervals have been presented as vertical bars. The rate for West Coast has been suppressed due to counts less than 20.  
Source: New Zealand Cancer Registry 2023

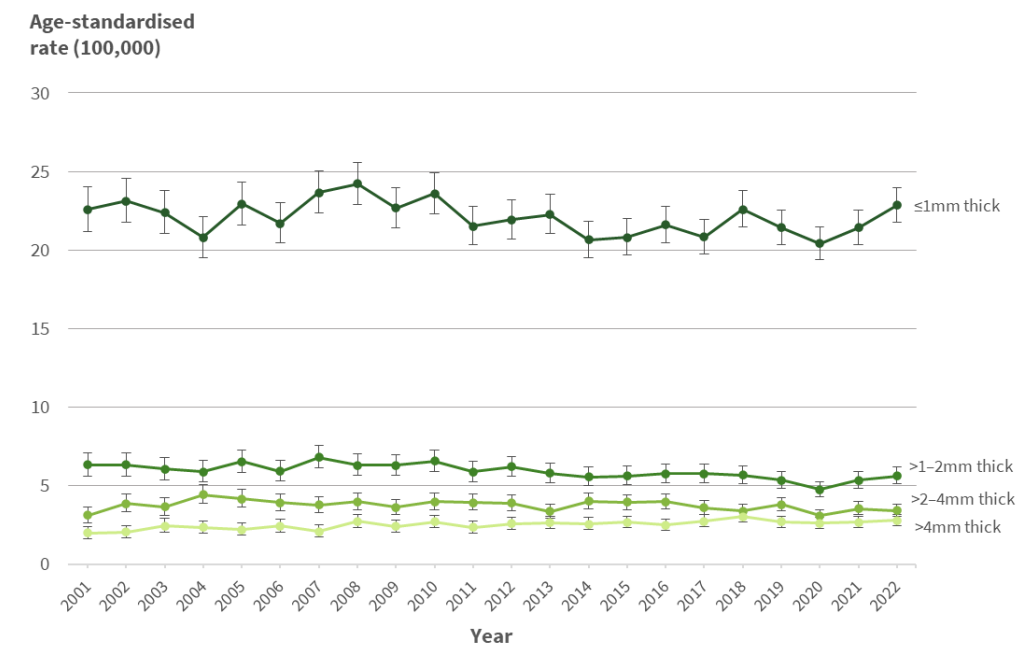
## No change in melanoma thickness since 2001

Melanoma lesion thickness is the strongest predictor of prognosis. In general, the thinner the lesion, the better the outcome for the patient (BPAC 2020).

In 2022, of the 2,887 melanomas with known thickness, 63.4% (1,829) were less than or equal to 1mm thick, 16.1% (464) were 1–2mm thick, 11.0% (317) were 2–4mm thick, and 9.6% (277) were greater than 4mm thick.

The rates of all melanoma thicknesses have remained fairly stable, with no significant changes since 2001 (Figure 8).

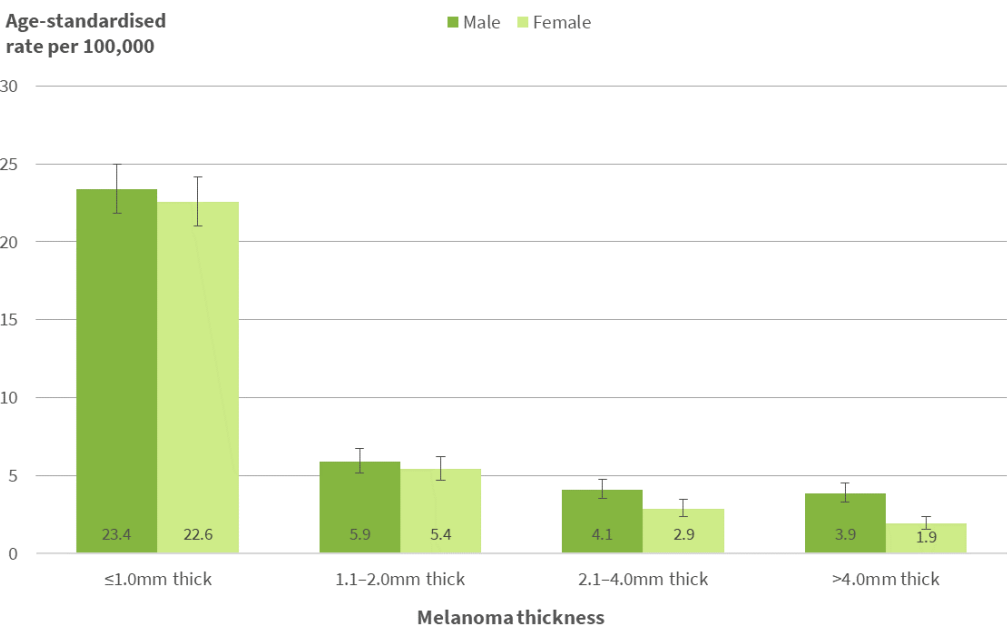
**Figure 8: Melanoma registrations, by thickness, 2001–2022 (age-standardised rate per 100,000)**



Note: 95% confidence intervals have been presented as vertical bars. Thickness is measured using Breslow's thickness.  
Source: New Zealand Cancer Registry 2023

The rate of thick melanoma was twice as high for males (3.9 per 100,000, 95%CI 3.3–4.5) than females (1.9 per 100,000, 95%CI 1.5–2.4) (Figure 9), a consistent disparity since 2001.

**Figure 9: Melanoma registrations, by thickness and sex, 2022 (age-standardised rate per 100,000)**



Note: 95% confidence intervals have been presented as vertical bars.  
Source: New Zealand Cancer Registry 2023



## Data for this indicator

This indicator reports registrations of melanoma (ICD-10AM C43) from 2001–2022 using the most recent data available from the New Zealand Cancer Registry, provided to EHINZ by the Ministry of Health in August 2023.

Crude (age-specific) rates presented in this surveillance report do not take into account varying age distributions when comparing between populations.

Age-standardised rates presented in this surveillance report take into account varying age distributions when comparing between populations.

Standardised rate ratios are a type of descriptive analysis that illustrates differences between groups. They compare the rates of two groups by dividing the rate for the group of primary interest by the rate for the comparison group. A rate ratio above 1.0 means that whatever is being measured (eg, melanoma rates) is higher in the group of primary interest.

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

## References

Arnold M, de Vries E, Whiteman D, Jemal A, Bray F, Maxwell Parlin D, Soerjomataram I. 2018. Global burden of cutaneous melanoma attributable to ultraviolet radiation in 2012. *International Journal of Cancer*. 2018 Apr 16;143:1305-1314. URL: <https://doi.org/10.1002/ijc.31527>

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Te Whatu Ora. 2023. *Cancer web tool: Numbers of common cancer registrations and deaths by sex*. Accessed 14/12/2023 from <https://tewhatuora.shinyapps.io/cancer-web-tool>

Wild CP, Weiderpass E, Stewart BW, editors (2020). *World Cancer Report: Cancer Research for Cancer Prevention*. Lyon, France: International Agency for Research on Cancer. Retrieved 4/11/2022 from <https://publications.iarc.fr/586>

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