

Melanoma mortality

This report presents the latest information about melanoma mortality rates in Aotearoa New Zealand.

Key facts

- In 2019, there were 329 deaths from melanoma in New Zealand, an increase from 298 deaths in 2018.
- The age-standardised melanoma mortality rate was 3.7 deaths per 100,000 in 2019. This remains significantly lower than the 2011 peak (5.3 per 100,000).
- Melanoma mortality increases with age, and in 2019, rates were at least twice as high for males aged 65+ years compared to females in the same age group.
- Age-standardised melanoma mortality rates for 2010–19 were highest in the European/Other ethnic group (5.4 per 100,000), almost five times the rate for the next most affected group, Māori (1.1 per 100,000).
- In 2015–19, Hawke's Bay district had a high age-standardised melanoma mortality rate (5.7 per 100,000). Counties Manukau district had a low rate (2.6 per 100,000).

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

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). Other risk factors for melanoma include:

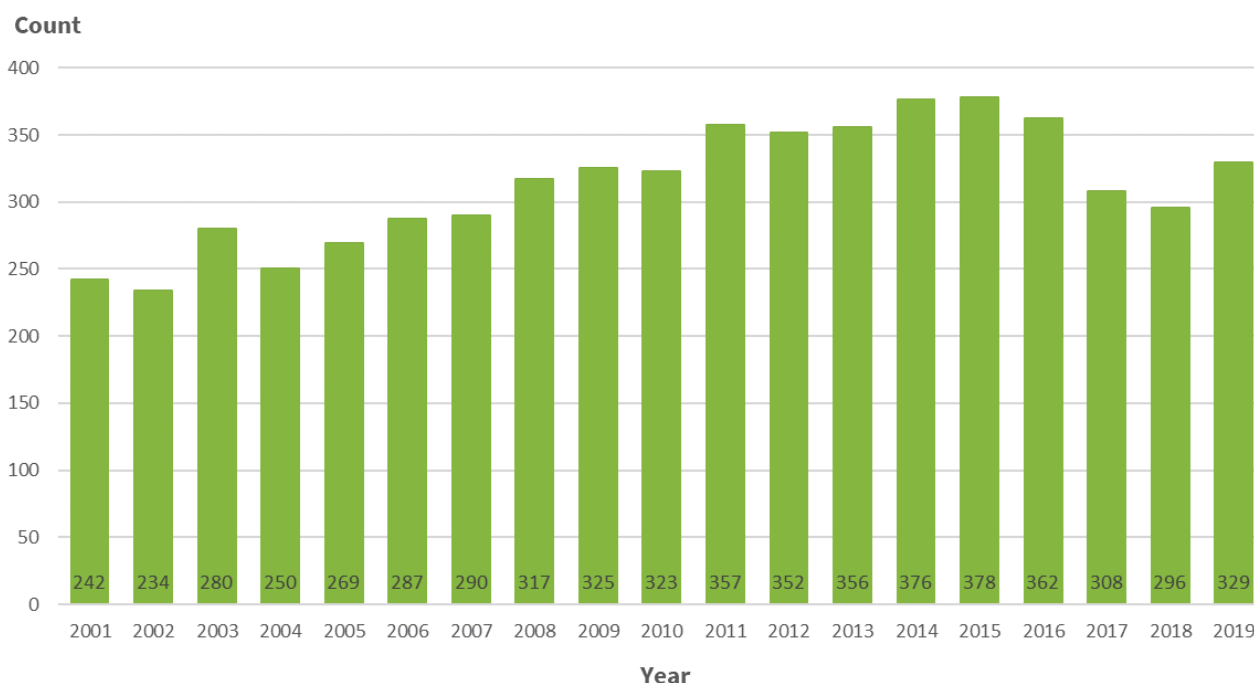
- fair skin, and skin types that burn or freckle easily
- a history of heavy sun exposure and sunburn, including sunbed and sunlamp use
- family history of melanoma.

New Zealand and Australia have some of the highest rates of melanoma incidence and mortality in the world (Global Cancer Observatory 2020). These rates are believed to partly be due to high UV levels and a high proportion of New Zealanders being fair-skinned and therefore at greater risk of skin damage from high UV exposure (McKenzie 2016).

2019 melanoma mortality rates remain lower than previous peak

In 2019, 329 people died from melanoma in New Zealand. While higher than in 2017 and 2018, this is a 13% decrease since the previous peak in 2015 (378 deaths) (Figure 1). In 2019, melanoma accounted for approximately 65% of all skin cancer deaths in New Zealand, with non-melanoma skin cancers accounting for a further 175 deaths.

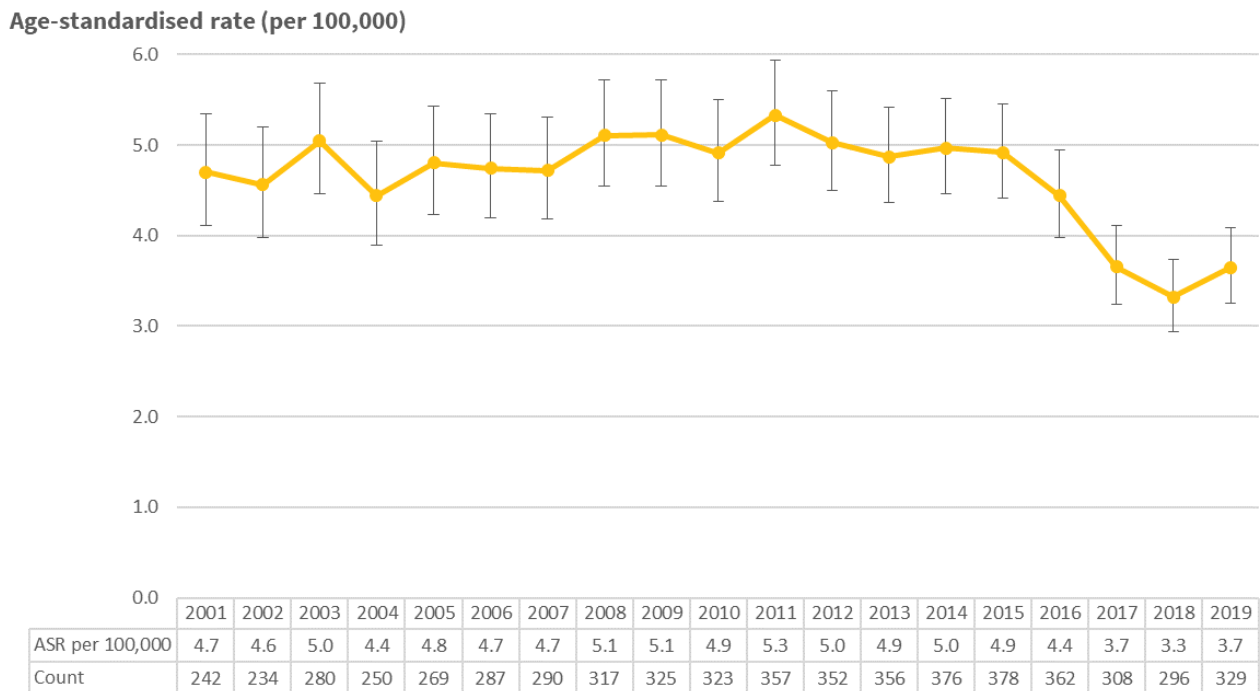
Figure 1: Melanoma deaths in New Zealand, 2001–2019



Source: New Zealand Mortality Collection

The age-standardised mortality rate for melanoma in 2019 was 3.7 per 100,000 (95%CI 3.3–4.1), still significantly less than the previous peak in 2015 (4.9 per 100,000, 95%CI 4.4–5.5) (Figure 2).

Figure 2: Melanoma mortality rates and counts in New Zealand, 2001–2019



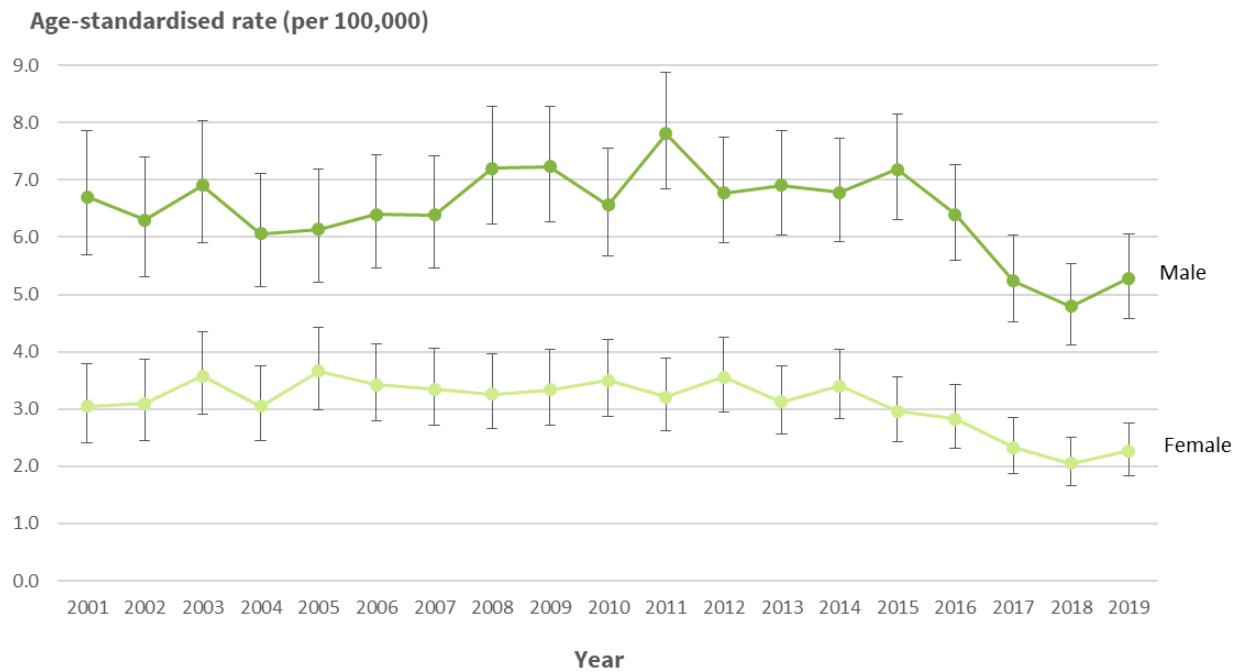
Note: 95% confidence intervals have been presented as vertical bars.
 Source: New Zealand Mortality Collection

As discussed in the previous [Melanoma Mortality surveillance report](#), the decrease in melanoma deaths from 2015 to 2018 may be linked to two new treatments for advanced melanoma - Opdivo and Keytruda. These treatments began receiving public funding by Pharmac in July 2016 and September 2016, respectively (EHINZ 2022, Mason et al. 2022). The increase in deaths in 2019 may reflect deaths among the first cohort to survive longer after receiving the new treatments.

Males have higher melanoma mortality rates than females

The age-standardised melanoma mortality rate for males was twice as high as for females in 2019. This difference in rates between the sexes has been relatively consistent since 2001 (Figure 3) and is similar to global data, which shows males having higher rates (Global Cancer Observatory 2020). Research into these sex differences suggests that males are less likely to engage in preventative behaviours and to self-detect melanoma growths, which could partially explain these differences (Bellenghi et al 2020).

Figure 3: Melanoma mortality rates in New Zealand, by sex, 2001–2019

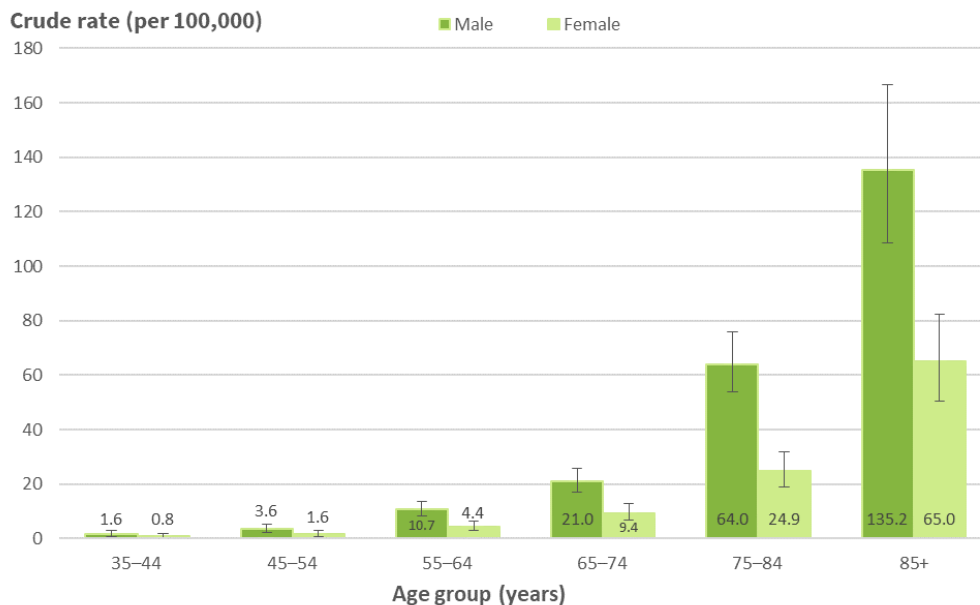


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

Melanoma mortality rates increase with age

In 2018–19, melanoma mortality rates were highest in the 85+ years age group for both males (135.2 deaths per 100,000, 95%CI 108.4–166.5) and females (65.0 deaths per 100,000, 95%CI 50.6–82.2) (Figure 4). Mortality rates for males were at least double the rates seen for females in the same age group.

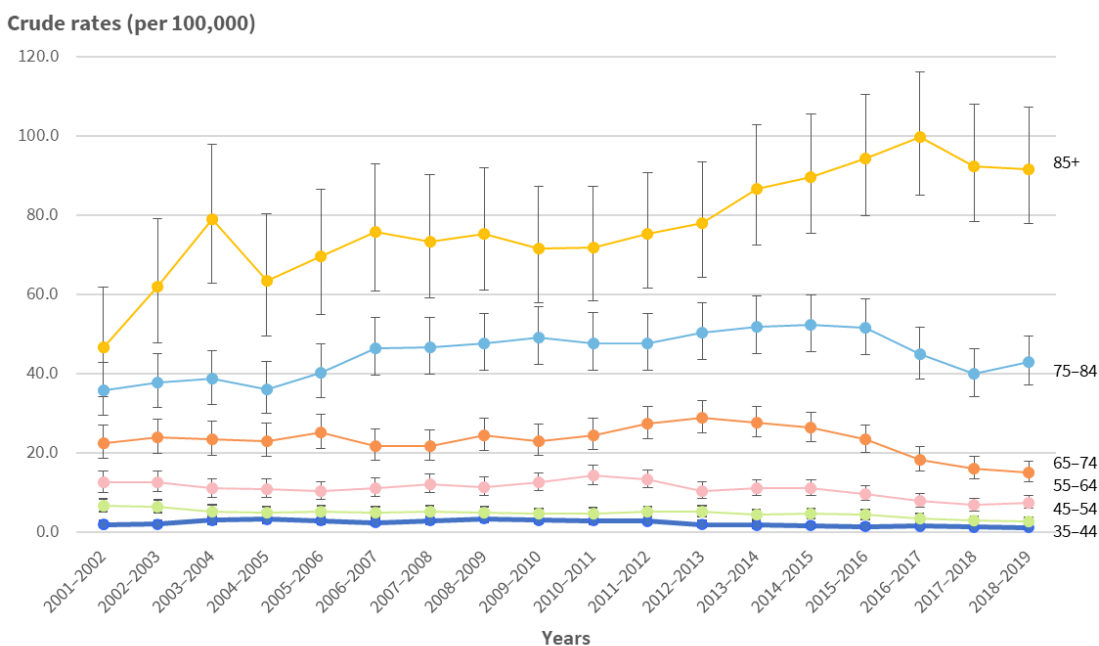
Figure 4: Melanoma mortality rates, by age group and sex, 2018–2019



Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

Melanoma mortality rates appeared to increase for those 85 years and over up until 2016–2017, before stabilising in the two most recent time periods. Rates for other age groups either decreased or were stable during the same period (Figure 5).

Figure 5: Melanoma mortality rates, by age group, 2001–2019, 2-year moving averages



Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

European/Other ethnic group has the highest melanoma mortality rate

The age-standardised rate (aggregated over ten years) for the European/Other ethnic group (5.4 per 100,000, 95%CI 5.2–5.6) was almost 5 times greater than the next most affected ethnic group, Māori (1.1 per 100,000, 95%CI 0.8–1.4) (Table 1).

Table 1: Melanoma mortality, by ethnic group (prioritised), 2010–2019 aggregated

Ethnic group	Number of deaths	Crude rate per 100,000 (95%CI)	Age-standardised rate per 100,000 (95%CI)
Māori	60	0.8 (0.6–1.0)	1.1 (0.8–1.4)
Pacific	14	0.5 (0.3–0.8)	*
Asian	18	0.3 (0.2–0.5)	*
European/Other	3,345	11.3 (10.9–11.6)	5.4 (5.2–5.6)
Total	3,437	7.5 (7.2–7.7)	4.6 (4.5–4.8)

Notes: * = Rate was suppressed due to a low count of deaths (<20). Crude rates for the Pacific and Asian groups are based on a low number of deaths and caution should be taken when interpreting these results.

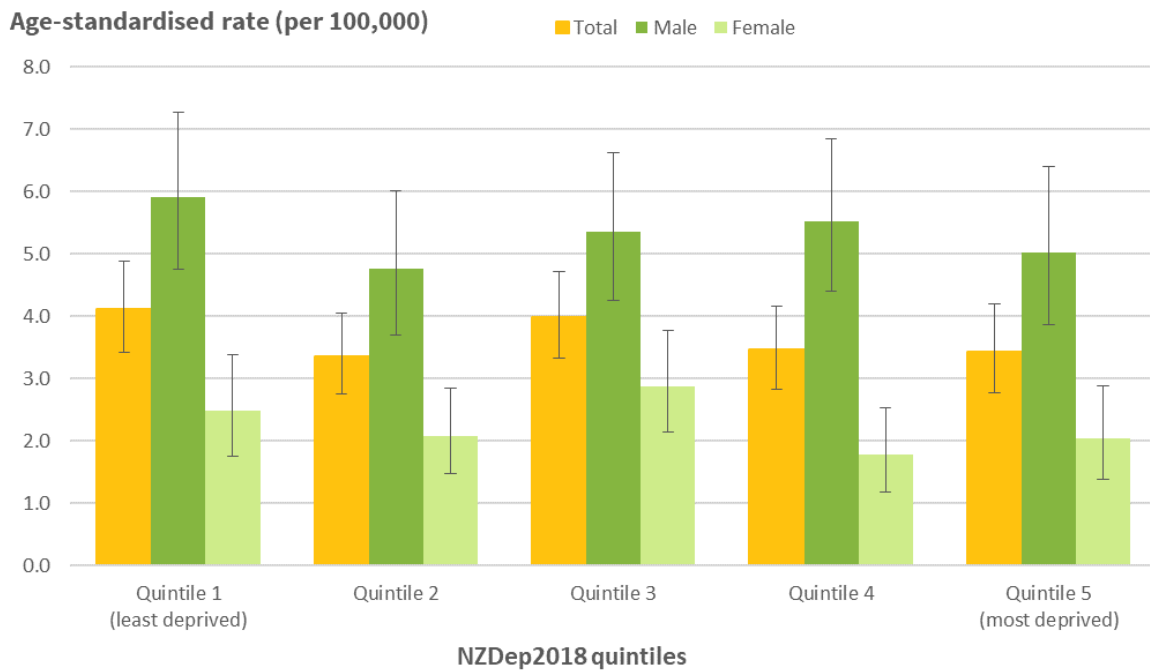
Source: New Zealand Mortality Collection

While melanoma mortality rates were lower among Māori, there are substantial gaps in survival rates between Māori and non-Māori (Te Aho o Te Kahu 2021). Among those diagnosed with melanoma, Māori were 2.6 times more likely to die than non-Māori (age- and sex-adjusted) (Gurney et al 2020). This is the largest survival disparity of any cancer between Māori and non-Māori.

Melanoma mortality rates are similar across socioeconomic quintiles

In 2018–19, mortality rates were relatively similar across socioeconomic deprivation quintiles. Males had consistently higher rates in each quintile (Figure 6).

Figure 6: Melanoma mortality rates, by NZDep2018 quintiles and sex, 2018–2019 aggregated

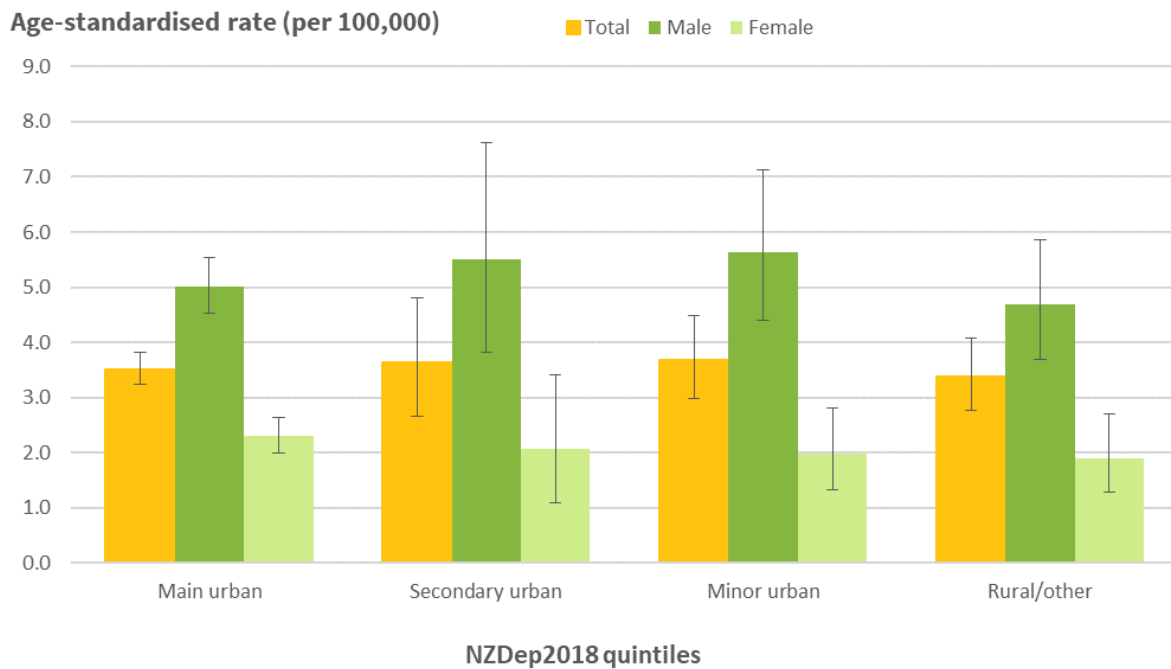


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

Melanoma mortality rates similar across urban-rural area categories

In 2018–19, total melanoma mortality rates were similar across urban-rural area categories (Figure 7). Males in all urban-rural area categories had melanoma mortality rates roughly twice as high as the female rate in the same area type.

Figure 7: Melanoma mortality rates, by sex and urban-rural classification, 2017–2019 aggregated

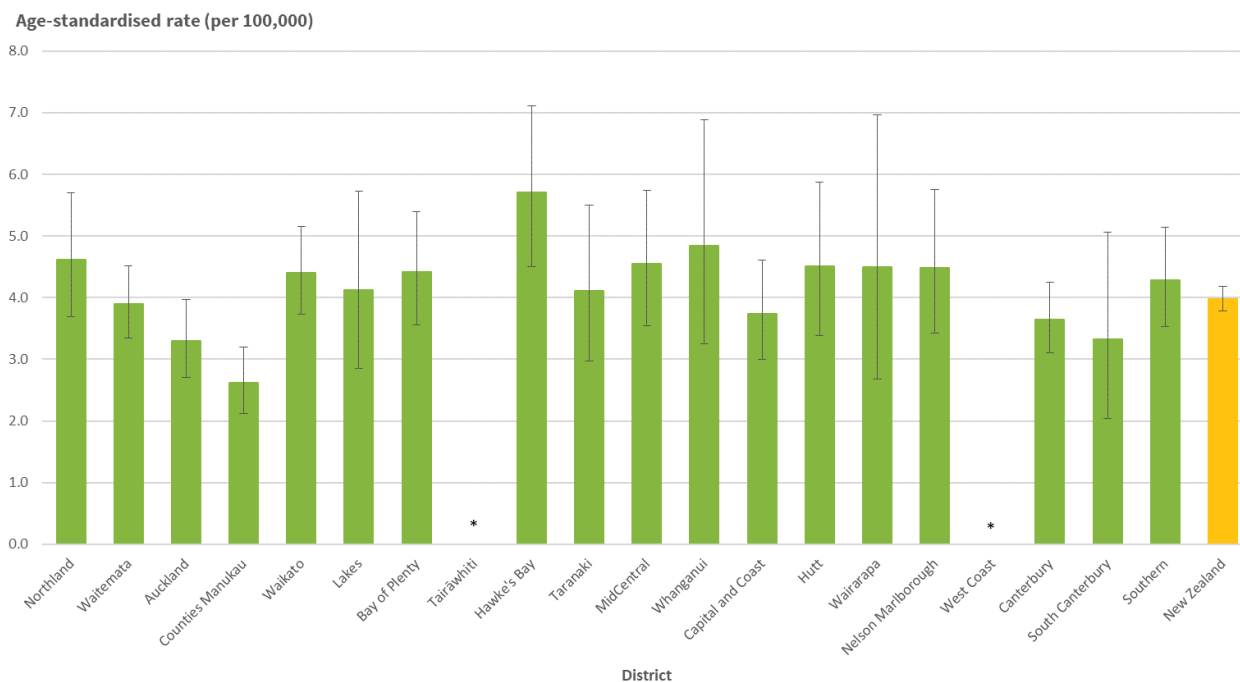


Notes: 95% confidence intervals have been presented as vertical bars. The Statistics New Zealand urban-rural classification for 2013 has been used. Main urban areas are major towns and cities with a population of 30,000 or more. Secondary urban areas are smaller towns of 10,000–29,999 people. Minor urban 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 Mortality Collection

Melanoma mortality rates were high in Hawke’s Bay district

In 2015–19, Hawke’s Bay district had a high melanoma mortality rate (5.7 per 100,000, 95%CI 4.5–7.1). Counties Manukau district had a low rate (2.6 per 100,000, 95%CI 2.1–3.2) (Figure 8).

Figure 8: Melanoma mortality rates, by district, 2015–2019 aggregated



Notes: 95% confidence intervals have been presented as vertical bars. * = Rate was suppressed due to a low count of deaths (<20).
Source: New Zealand Mortality Collection

Data for this indicator

This indicator reports analysis of the most recent data available from the New Zealand Mortality Collection (2019 calendar year), provided to EHINZ by Health New Zealand – Te Whatu Ora (Health NZ) in February 2024. There is a longer time lag for mortality data than other datasets due to the need to wait for coronial findings. More information on the Mortality Data Collection is available from the [Health NZ website](#).

Crude rates presented in this surveillance report do not take into account varying age distributions when comparing between populations. In contrast, the age-standardised rates presented in this surveillance report do take into account varying age distributions when comparing between populations.

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

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