Melanoma mortality

This report presents an analysis of the most recent data on melanoma mortality rates in Aotearoa New Zealand available from the New Zealand Mortality Collection (2021 calendar year), provided to EHINZ by Health New Zealand – Te Whatu Ora (Health NZ) in December 2025.

Key facts

- In 2021, there were 333 deaths from melanoma in New Zealand, an increase from 294 deaths in 2020.
- The age-standardised melanoma mortality rate was 3.5 deaths per 100,000 in 2021. This was statistically significantly lower than the 2011 peak (5.3 per 100,000).
- Melanoma mortality increases with age, and in 2020–21, 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 2012–21 were highest in the European/Other ethnic group (5.0 per 100,000), almost five times the rate for the next most affected group, Māori (1.1 per 100,000).
- In 2017–21, Hawke's Bay district had a high age-standardised melanoma mortality rate (5.4 per 100,000). Counties Manukau district had a low rate (2.2 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 (Ferlay et al 2024). 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).

2021 melanoma mortality rates remain lower than the previous peak

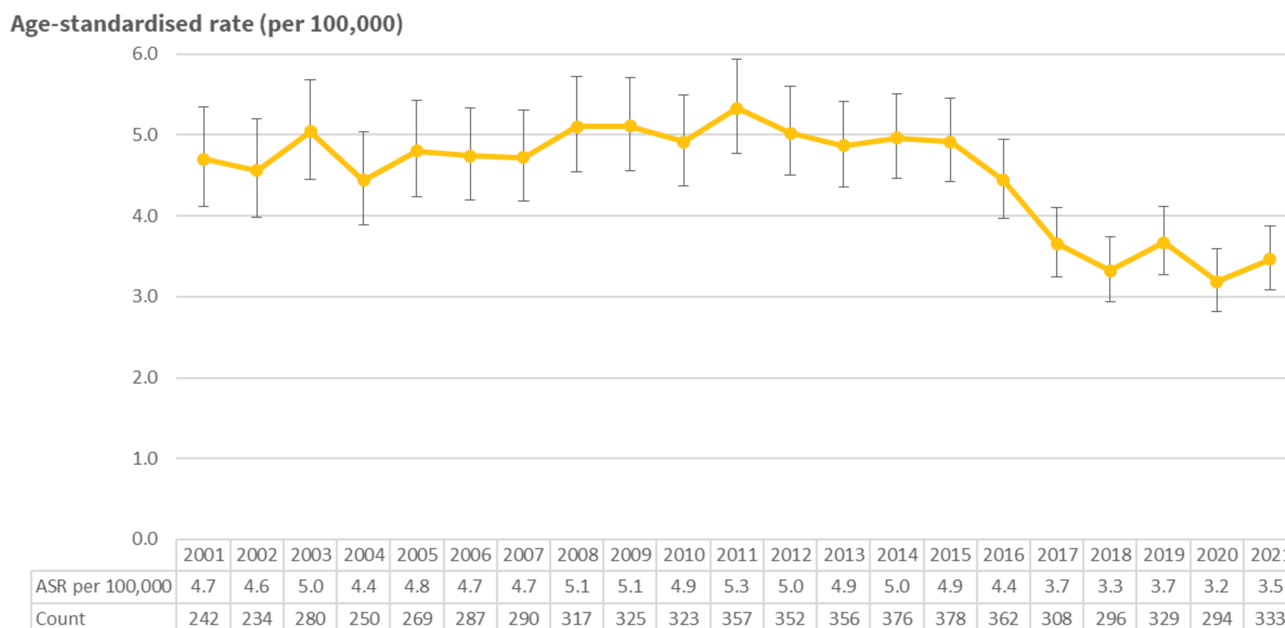
In 2021, 333 people died from melanoma in New Zealand. While higher than recent years, this is still an 11.9% decrease since the previous peak in 2015 (378 deaths) (Figure 1). In 2021, melanoma accounted for approximately 64% of all skin cancer deaths in New Zealand, with non-melanoma skin cancers accounting for a further 186 deaths.

Figure 1: Melanoma deaths in New Zealand, 2001–2021

Source: New Zealand Mortality Collection

The age-standardised mortality rate for melanoma in 2021 was 3.5 per 100,000 (95%CI 3.1–3.9), statistically significantly lower than the previous peak rate in 2011 (5.3 per 100,000, 95%CI 4.8–5.9). The 2021 rate was lower than the rate in 2019 (3.7 per 100,000, 95%CI 3.3-4.1) but higher than in 2020 (3.2 per 100,000, 95%CI 2.8–3.7) (Figure 2).

Figure 2: Melanoma mortality rates and counts in New Zealand, 2001–2021



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ASR per 100,000	4.7	4.6	5.0	4.4	4.8	4.7	4.7	5.1	5.1	4.9	5.3	5.0	4.9	5.0	4.9	4.4	3.7	3.3	3.7	3.2	3.5
Count	242	234	280	250	269	287	290	317	325	323	357	352	356	376	378	362	308	296	329	294	333

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

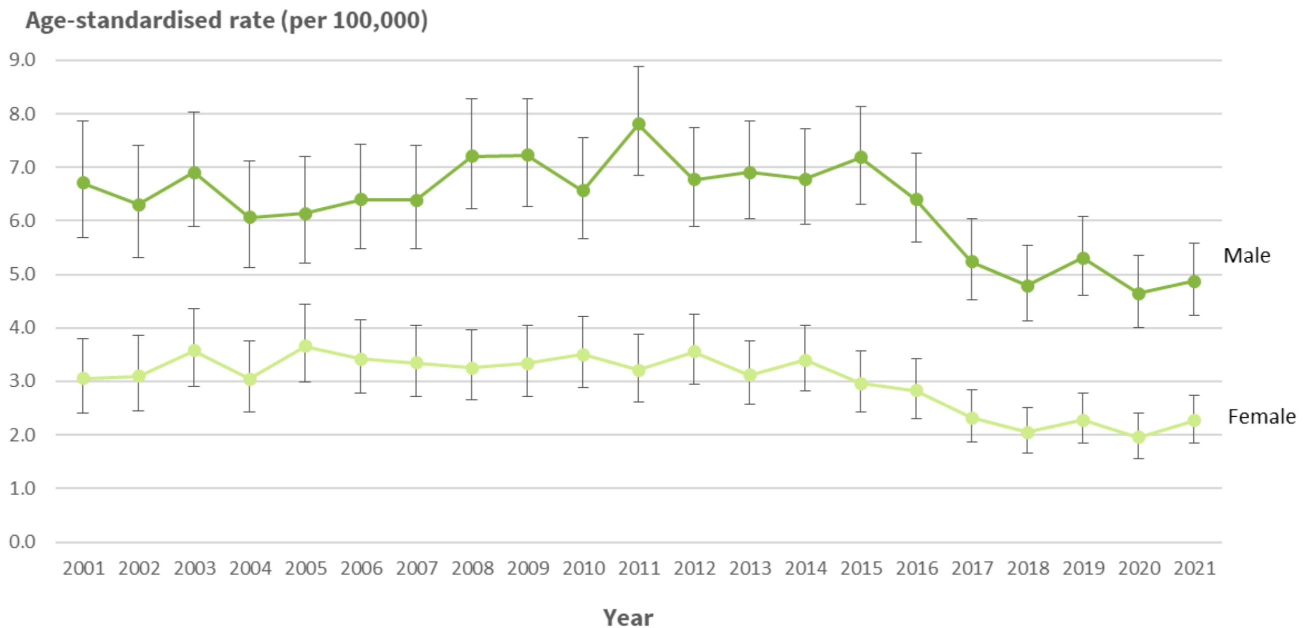
As discussed in the previous Melanoma Mortality surveillance report, the decrease in melanoma deaths from 2015 to 2018 may be linked to two new treatments for advanced melanoma - Opdivo and Keytruda. These treatments began receiving public funding from Pharmac in July 2016 and September 2016, respectively (EHINZ 2024; 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.

In 2020, the lower number of melanoma deaths might be due to the COVID-19 pandemic, during which healthcare systems worldwide faced disruptions from national lockdowns and restricted services that may have delayed access to care. Reduced diagnoses and disrupted follow-up in 2020 may have shifted more melanoma-related deaths into 2021. This pattern has been observed in other countries, where delayed diagnosis due to the COVID-19 pandemic contributed to the delayed outcomes of melanoma diagnoses in subsequent years (Pellegrini et al 2024).

Males have higher melanoma mortality rates than females

The age-standardised melanoma mortality rate for males (4.9 per 100,000, 95%CI 4.2–5.6) was twice as high as for females (2.3 per 100,000, 95%CI 1.8–2.7) in 2021. 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 (Ferlay et al 2024). 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, 2001–2021

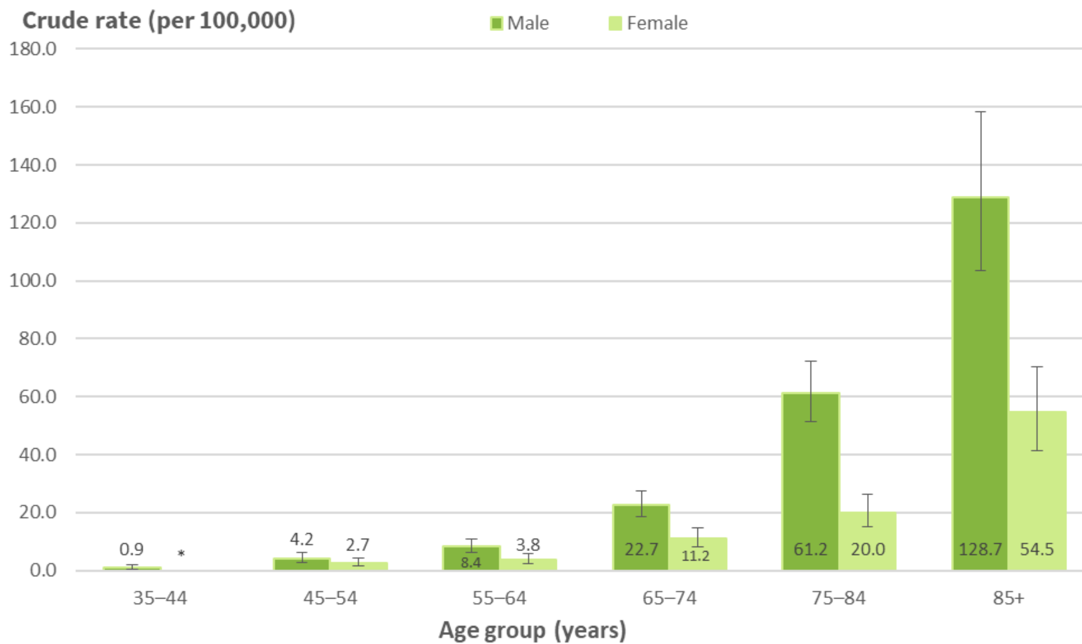


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

Melanoma mortality rates increase with age

In 2020–21, melanoma mortality rates were highest in the 85+ years age group for both males (128.7 deaths per 100,000, 95%CI 103.4–158.4) and females (54.5 deaths per 100,000, 95%CI 41.5–70.3) (Figure 4). Mortality rates for males were three times higher than for females for the 75-84 years age group, and more than twice as high for each of the 85+ and 65-74 years age groups.

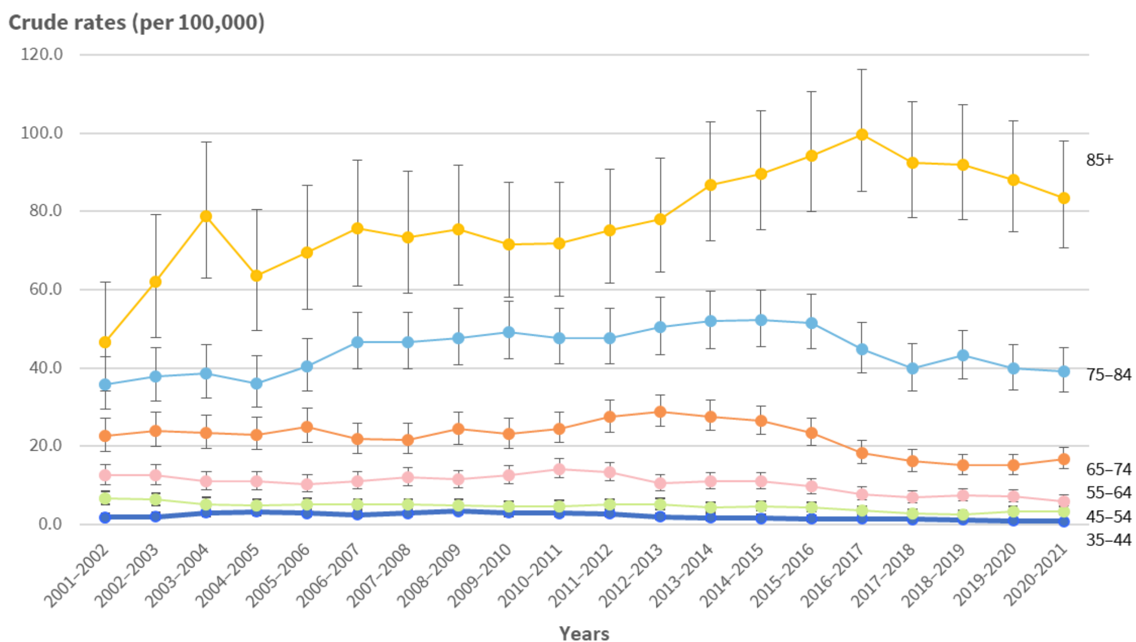
Figure 4: Melanoma mortality rates, by age group and sex, 2020–21



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 2016–17, before slightly decreasing in the next four periods through 2020–21. Rates for other age groups either decreased or were stable during the same period (Figure 5).

Figure 5: Melanoma mortality rates, by age group, 2001–2021, 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 (5.0 per 100,000, 95%CI 4.8–5.2) was almost five times greater than for Māori (1.1 per 100,000, 95%CI 0.8–1.4) (Table 1).

Table 1: Melanoma mortality, by ethnic group (prioritised), 2012–21 aggregated

Ethnic group	Number of deaths	Crude rate per 100,000 (95%CI)	Age-standardised rate per 100,000 (95%CI)
Māori	65	0.8 (0.6–1.1)	1.1 (0.8–1.4)
Pacific	10	0.3 (0.2–0.6)	*
Asian	18	0.3 (0.2–0.4)	*
European/Other	3,291	11.0 (10.6–11.4)	5.0 (4.8–5.2)
Total	**3,384**	**7.1 (6.9–7.4)**	**4.1 (4.0–4.2)**

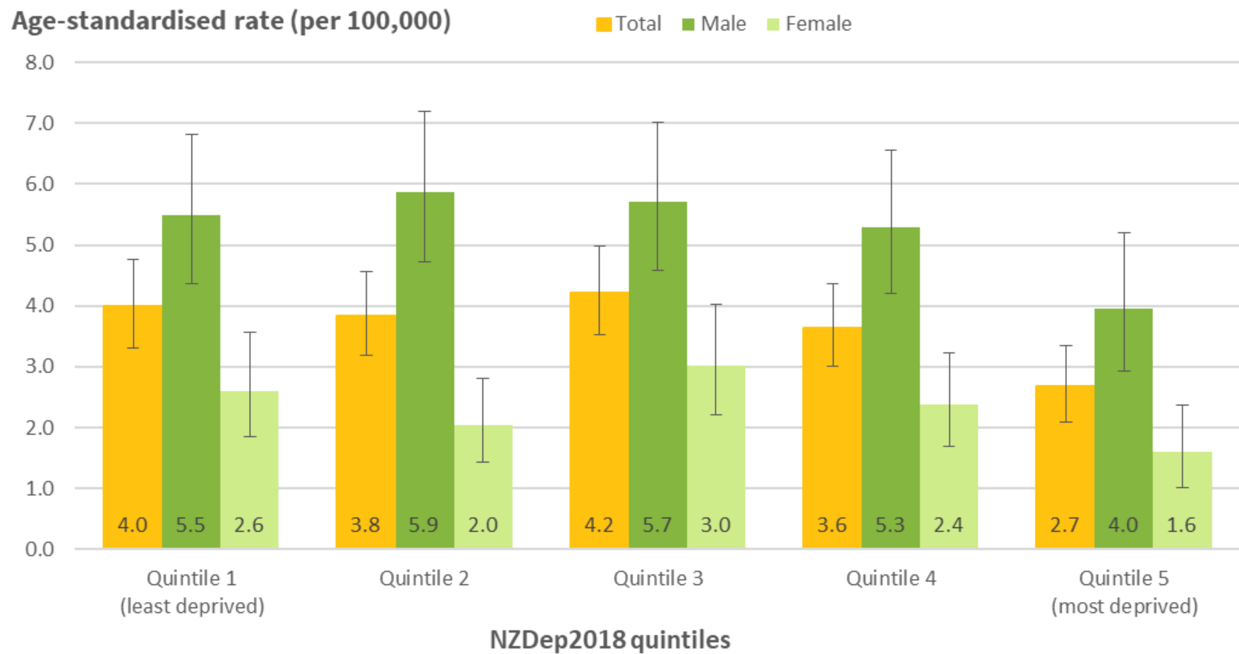
Notes: * = Rate was suppressed due to a low count of deaths (<20). Crude rates for the Pacific and Asian groups are based on a low number of deaths and caution should be taken when interpreting these results.
Source: New Zealand Mortality Collection

While melanoma mortality rates were lower among Māori, research shows 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 found to be 2.6 times more likely to die than non-Māori (age- and sex-adjusted) (Gurney et al 2020). This was the largest survival disparity of any cancer between Māori and non-Māori found in the study.

Melanoma mortality rates were high across quintiles 1–4 of socioeconomic deprivation

In 2020–21, mortality rates were relatively similar across quintiles 1–4 of socioeconomic deprivation and were lowest in the most socioeconomically deprived areas (quintile 5). Males had consistently higher rates in each quintile (Figure 6).

Figure 6: Melanoma mortality rates, by NZDep2018 quintiles and sex, 2020–21 aggregated

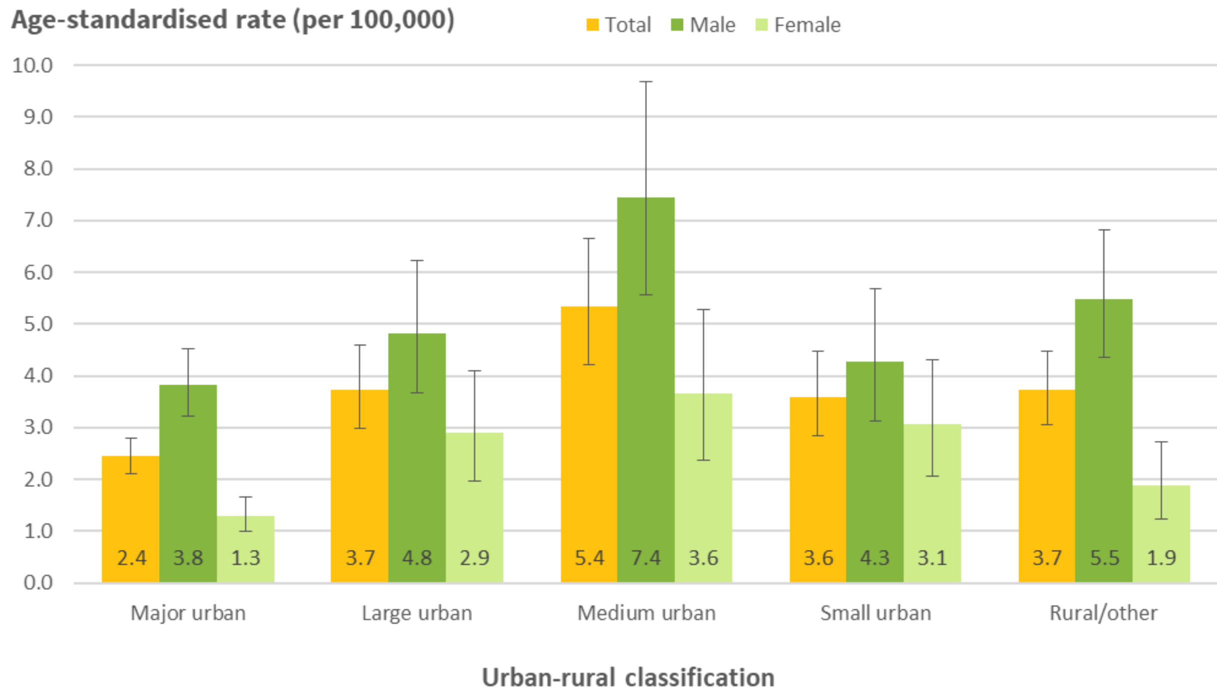


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection

Melanoma mortality rates were the highest in medium urban areas

In 2020–21, total melanoma mortality rates were the highest in medium urban areas (5.4 per 100,000, 95%CI 4.2–6.7), similar across large urban (3.7 per 100,000, 95%CI 3.0–4.6), small urban (3.6 per 100,000, 95%CI 2.8–4.5), and rural areas (3.7 per 100,000, 95%CI 3.1–4.5), and lowest in major urban areas (2.4 per 100,000, 95%CI 2.1–2.8) (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, 2020–21 aggregated

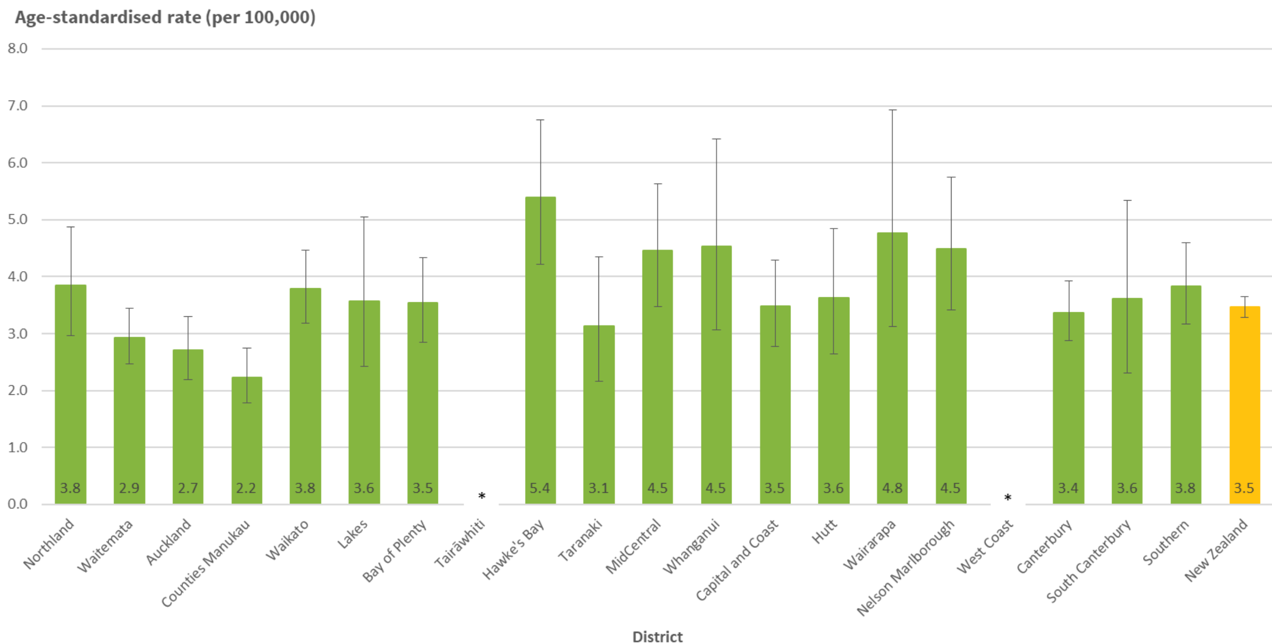


Notes: 95% confidence intervals have been presented as vertical bars. The Statistics NZ urban-rural classification for 2018 has been used. Major urban areas are major towns and cities with a population of 100,000 or more. Large urban areas are smaller centres with a population of 30,000–99,999. Medium urban areas are towns with a population of 10,000–29,999. Small urban areas are towns with a population of 1,000–9,999. Rural areas include rural centres and surrounding rural areas.
Source: New Zealand Mortality Collection

Melanoma mortality rates were high in Hawke's Bay district

In 2017–21, Hawke's Bay district had a high melanoma mortality rate (5.4 per 100,000, 95%CI 4.2–6.7). Counties Manukau district had a low rate (2.2 per 100,000, 95%CI 1.8–2.7) (Figure 8).

Figure 8: Melanoma mortality rates, by district, 2017–21 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 (2021 calendar year), provided to EHINZ by Health New Zealand – Te Whatu Ora (Health NZ) in December 2025. 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.

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

Bellenghi M, Puglisi R, Pontecorvi G, et al. 2020. Sex and Gender Disparities in Melanoma. *Cancers*: 12(7).

Environmental Health Intelligence NZ. 2024. *Melanoma Mortality*. Wellington: Environmental Health Intelligence NZ, Massey University.

Ferlay J, Ervik M, Lam F, Laversanne M, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F. 2024. *Global Cancer Observatory: Cancer Today*. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.who.int/today (accessed 13 January 2026).

Gurney JK, Robson B, Koea J, Scott N, Stanley J, Sarfati D. 2020. The most commonly diagnosed and most common causes of cancer death for Māori New Zealanders. *NZ Med J*, *133*(1521), 77-96.

Mason K, Kelly L, Jackson C, Read D, Borman B. 2022. Did new treatments contribute to a decrease in melanoma deaths?. *The New Zealand Medical Journal*, *135*(1558), 90-95.

McKenzie R. 2016. UV radiation in the melanoma capital of the world: What makes New Zealand so different? *AIP Conference Proceedings*: 1810(1), 020003. URL: https://aip.scitation.org/doi/pdf/10.1063/1.4975499

Pellegrini C, Caini S, Gaeta A, et al. 2024. Impact of COVID-19 pandemic on delay of melanoma diagnosis: a systematic review and meta-analysis. *Cancers*, *16*(22), p.3734.

Te Aho o Te Kahu – Cancer Control Agency. 2021. *He Pūrongo Mate Pukupuku o Aotearoa 2020, The State of Cancer in New Zealand 2020*. URL: https://teaho.govt.nz/application/files/2817/3759/2091/state-of-cancer-in-new-zealand-2020-FINAL-FOR-WEB.pdf (accessed 13 January 2026).

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