

Non-melanoma skin cancer mortality

This report presents information about deaths from skin cancers other than melanoma in Aotearoa New Zealand.

Key facts

- There were 175 deaths from non-melanoma skin cancer (NMSC) in New Zealand in 2019, down from 204 in 2018.
- In 2019 the NMSC mortality rate for men was 2.5 per 100,000, compared to 0.9 per 100,000 for females.
- In 2018–19, NMSC mortality rates increased with age, with the 85+ year age group having rates roughly four times greater than the 75–84 year age group.
- In 2010–19, NMSC mortality rates in the European/Other ethnic group (1.9 deaths per 100,000) were more than three times greater than the next most affected ethnic group, Māori.
- In 2015–19, the Wairarapa and South Canterbury districts had high NMSC mortality rates.

UV radiation exposure is a risk factor for non-melanoma skin cancer

Non-melanoma skin cancer (NMSC) refers to all types of skin cancer that are not melanoma. The two most common varieties of NMSC are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). There is strong evidence that excessive UV exposure is a risk factor for both types (WHO 2010). Although NMSCs are common, they are rarely fatal (BPAC 2013). BCC and SCC are not included in the New Zealand skin cancer registry (Ministry of Health 2021), making it difficult to determine the impact these conditions have in New Zealand beyond mortality (BPAC 2013). An investigation in Auckland estimated that 78,000–87,000 cases of invasive NMSC occurred across New Zealand in 2016, based on 2008 data (Pondicherry 2018).

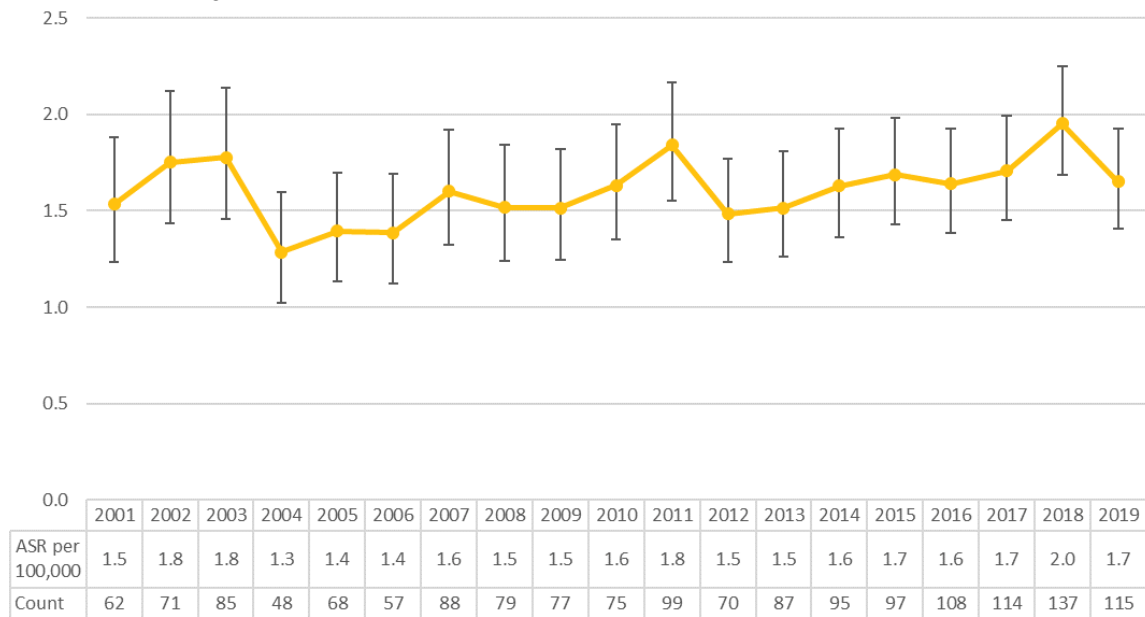
Non-melanoma skin cancer mortality rates stable over time

In 2019, 175 people died from NMSC in New Zealand, down from 204 in 2018. Given there were 329 melanoma deaths recorded in the same year, approximately 35% of all skin cancer deaths in 2019 were NMSCs. Males represented roughly two thirds of the total number of NMSC deaths in 2019 – 115 male deaths compared to 60 female deaths.

The 2019 NMSC mortality rate was 1.7 deaths per 100,000 (95%CI 1.4–1.9). This is lower than the 2018 rate (2.0 per 100,000, 95%CI 1.7–2.3) but similar to 2017 and prior years (Figure 1). The higher rate for 2018 was largely due to a higher rate for males (3.1 per 100,000, 95%CI 2.6–3.7) compared to previous years. Rates for females over the past 10 years have remained at approximately 1.0 per 100,000, less than half the corresponding male rate (Figure 2).

Figure 1: NMSC mortality rates, 2001–2019

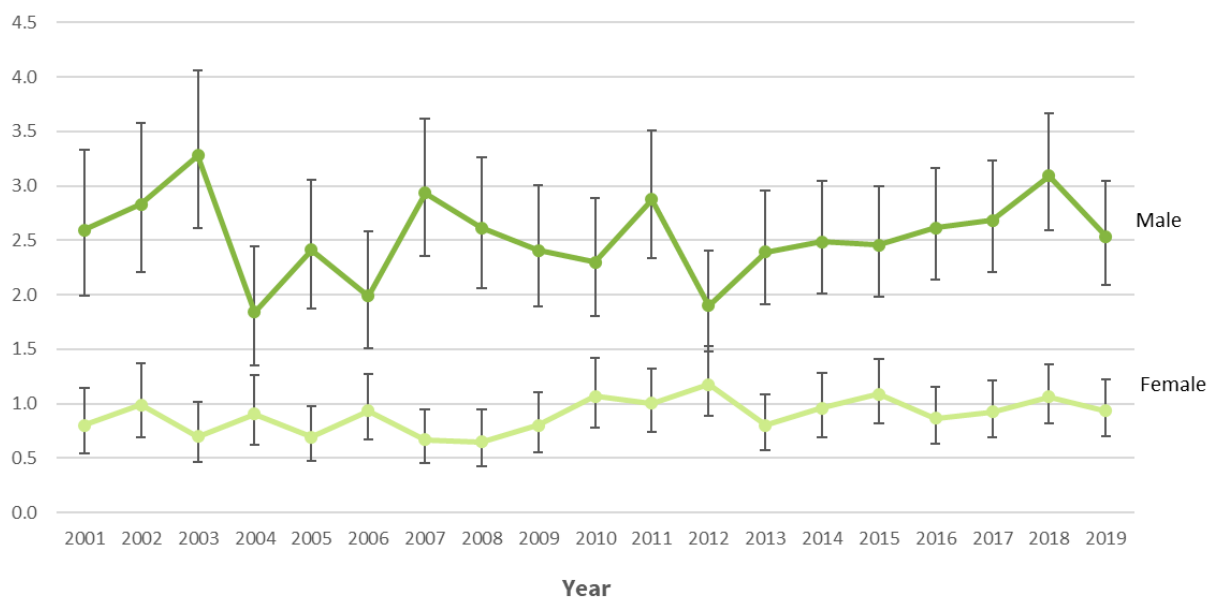
Age-standardised rate (per 100,000)



Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection 2024

Figure 2: NMSC mortality rates, by sex, 2001–2019

Age-standardised rate (per 100,000)

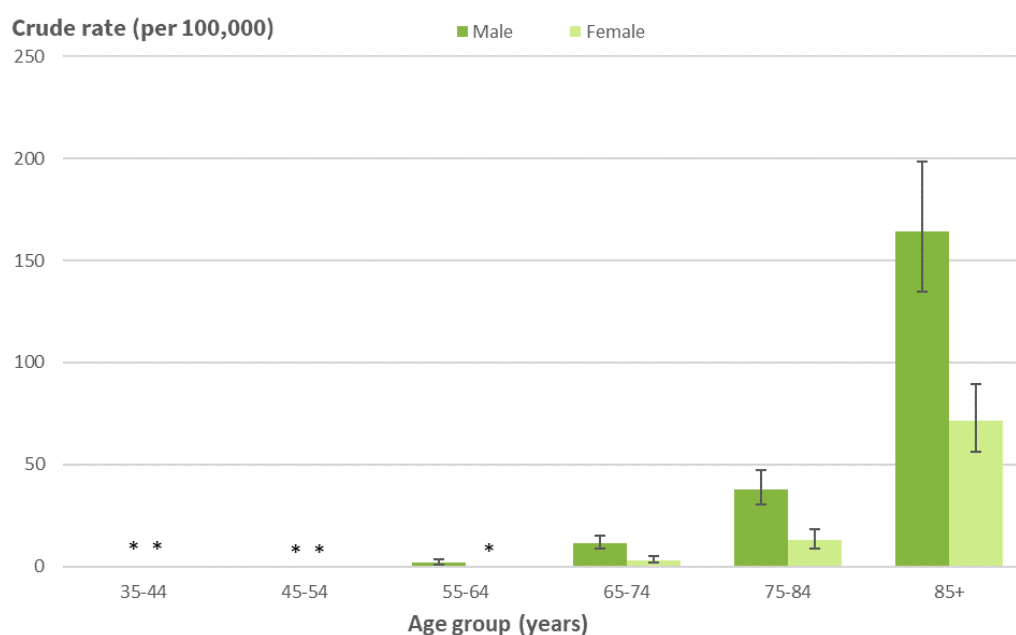


Note: 95% confidence intervals have been presented as vertical bars.
Source: New Zealand Mortality Collection 2024

Non-melanoma mortality rates increase with age

In 2018–19, NMSC mortality rates were highest in the 85+ year age group for both males (164.3 deaths per 100,000) and females (71.6 deaths per 100,000) (Figure 3). Males had higher rates than females in the same age group.

Figure 3: Non-melanoma skin cancer rates, by age group and sex, 2018–2019



Notes: 95% confidence intervals have been presented as vertical bars. * = Rate not shown due to a low count of deaths (<5).
Source: New Zealand Mortality Collection 2024

European/Other ethnic group has the highest mortality rate

The 2010–2019 age-standardised mortality rate for the European/Other ethnic group (1.9 per 100,000) was more than three times that of the next most affected ethnic group, Māori (0.6 per 100,000) (Table 1).

Table 1: Non-melanoma skin cancer mortality, by ethnic group (prioritised), 2010–2019

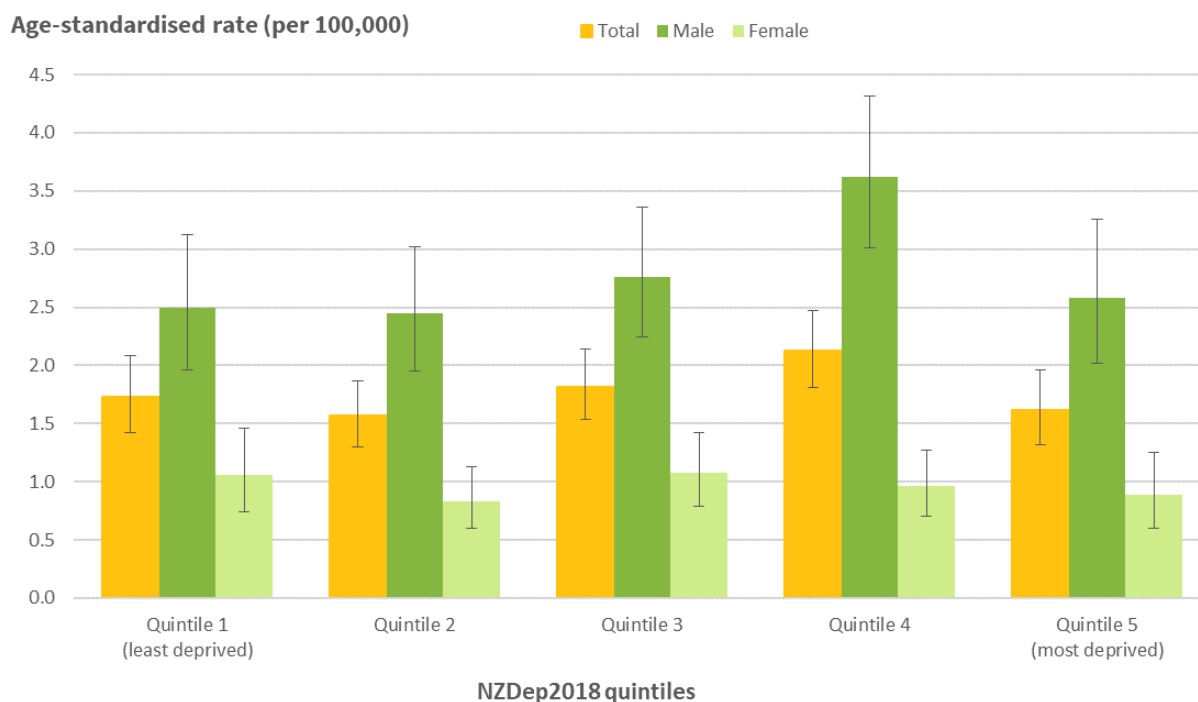
Ethnic group	Number of deaths	Crude rate per 100,000 (95%CI)	Age-standardised rate per 100,000 (95%CI)
Māori	24	0.3 (0.2–0.5)	0.6 (0.4–0.8)
Pacific	5	0.2 (0.1–0.4)	*
Asian	6	0.1 (0.0–0.2)	*
European/Other	1,522	5.1 (4.9–5.4)	1.9 (1.8–2.0)
Total	1,557	3.4 (3.2–3.5)	1.7 (1.6–1.8)

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 2024

No consistent trend in rates by neighbourhood deprivation

Mortality rates from NMSC did not show a consistent trend across NZDep2018 quintiles. The highest aggregated rate for 2016–19 was for quintile 4, but quintile 5 (the most deprived areas) had a rate more similar to quintiles 1 to 3 (Figure 4).

Figure 4: Non-melanoma mortality rates, by NZDep2018 quintiles and sex, 2016–2019



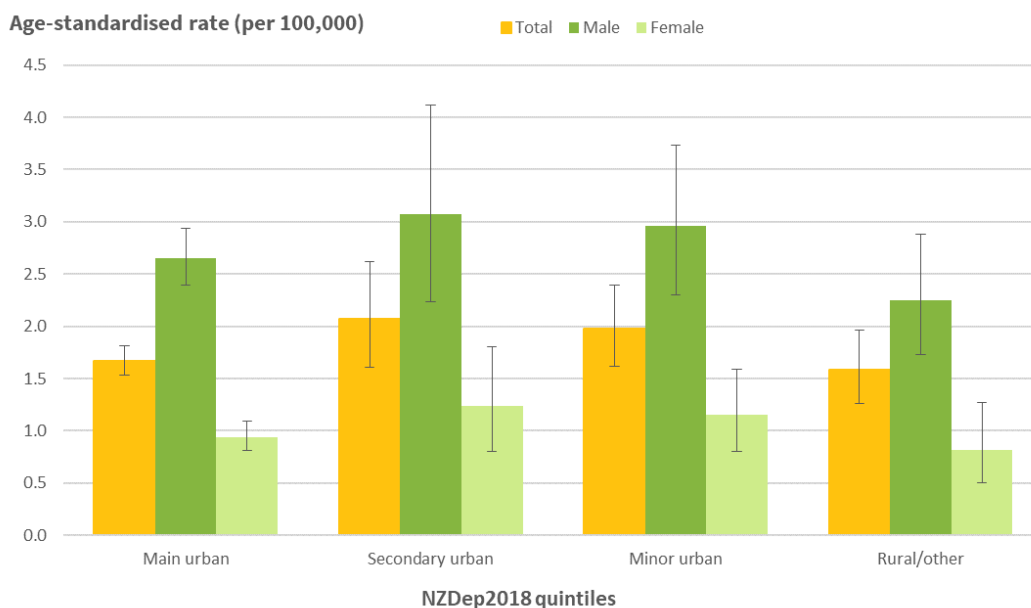
Note: 95% confidence intervals have been presented as vertical bars.

Source: New Zealand Mortality Collection 2024

No significant difference by urban-rural category

In 2015–19, males in all urban-rural area types had NMSC mortality rates that were more than two times the rate for females in the same area type (Figure 5). Rates aggregated rates for 5 years show no statistically significant difference between urban-rural categories.

Figure 5: Non-melanoma mortality rates, by sex and urban-rural classification, 2015–2019

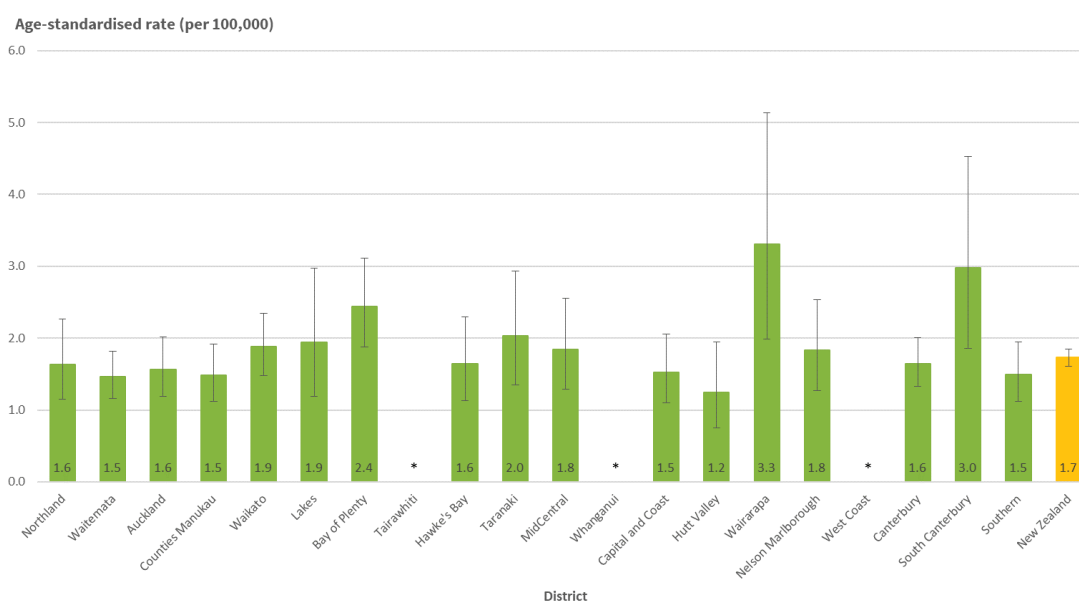


Notes: 95% confidence intervals have been presented as vertical bars. The Statistics New Zealand urban-rural classification for 2013 has been used. Main urban areas are major towns and cities with a population of 30,000 or more. Secondary urban areas are smaller towns of 10,000–29,999 people. Minor urban 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 2024

Non-melanoma mortality rates high in Wairarapa and South Canterbury

In 2015–19, the Wairarapa and South Canterbury districts had high NMSC mortality rates (Figure 6).

Figure 6: Non-melanoma mortality rates, by district, 2015–2019



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 2024

Data for this indicator

This indicator reports analysis of the most recent data available from the New Zealand Mortality Collection, provided to EHINZ by Health New Zealand–Te Whatu Ora (Health NZ) in February 2024.

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

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