Melanoma cancer registrations

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

Key facts

In 2017, there were 2,550 registrations of melanoma in New Zealand.

Melanoma rates are highest among males, older adults, and those of European/Other ethnicity.

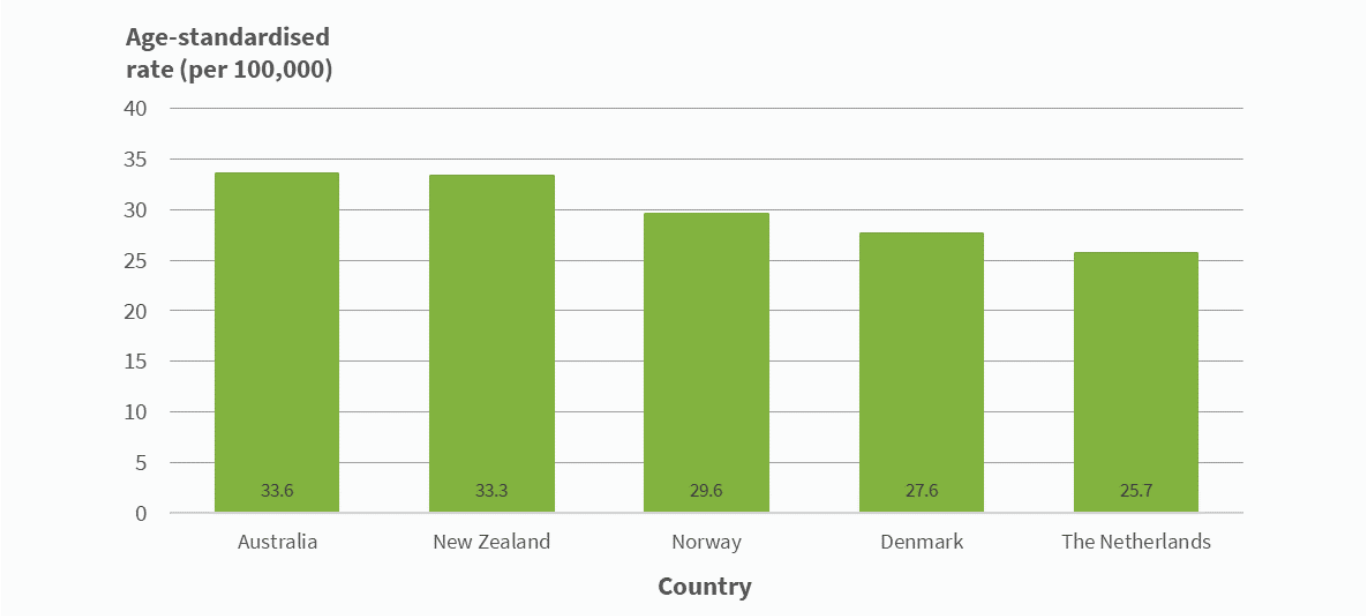
The highest rates of melanoma occurred in secondary urban areas. Taranaki and Wairarapa District Health Boards (DHBs) had the highest rates of all DHBs.

In 2017, 10.1% of all melanoma registrations had a Breslow's thickness of more than 4.0mm, which can indicate a lower recovery rate.

Relevance of melanoma to environmental health

Melanoma is a type of skin cancer, and most melanoma (80–96% of cases) is caused by UV exposure (WHO 2006). Risk factors for melanoma include exposure to sunlight, fair skin and childhood sun exposure or sunburn. Skin cancer is one of the most common cancers in New Zealand. According to the most recent available data, New Zealand had the second-highest age-standardised incidence rate in the world (Global Cancer Observatory 2018).

Figure 1: Melanoma incidence rates in the countries with the highest rates of melanoma

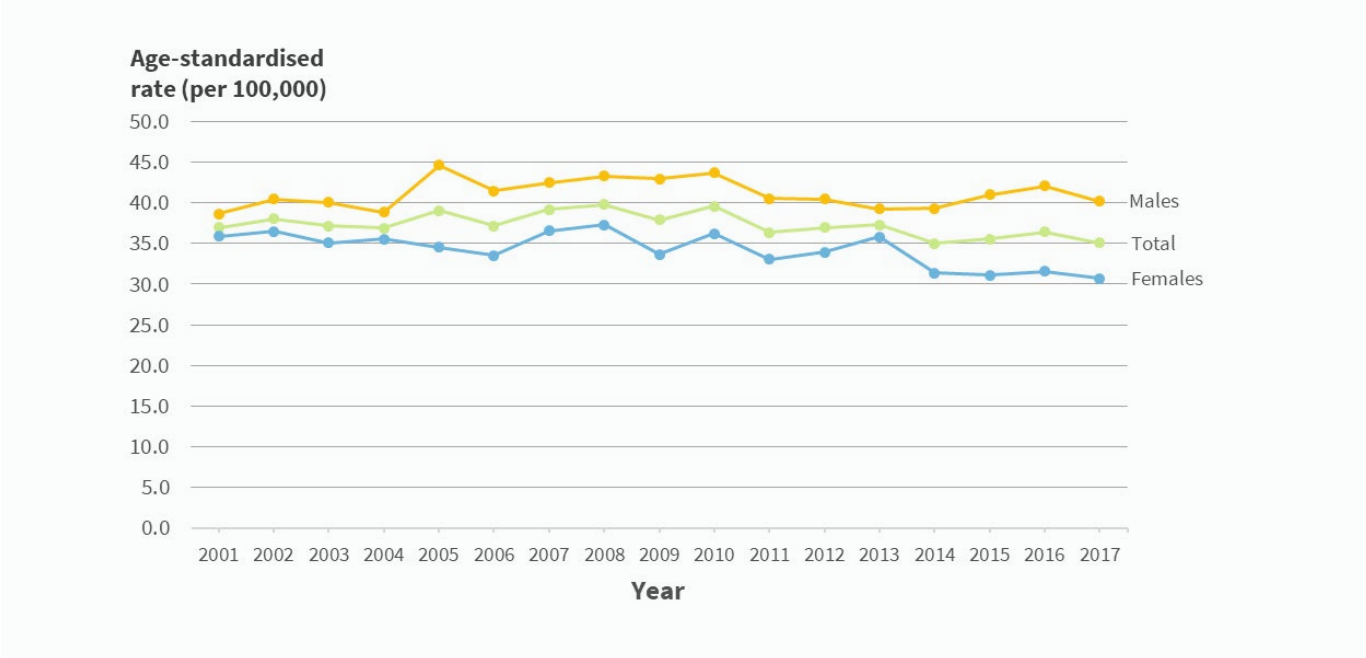


Note: The rates presented here represent historic data from each country, projected ahead to 2018. The date ranges for each countries data are as follows: Australia and New Zealand: 2003–2012, Norway and Denmark: 2005-2014, and The Netherlands: 2003–2013.
Source: Global Cancer Observatory 2018

Overall melanoma rates have decreased since 2001

In 2017, there were 2,550 registrations of melanoma in New Zealand. The rate of registrations has stayed fairly stable since 2001, both overall and when rates are stratified by sex (figure 2).

Figure 2: Melanoma registration rates in New Zealand, by sex, 2001–2017 (age-standardised rate per 100,000)

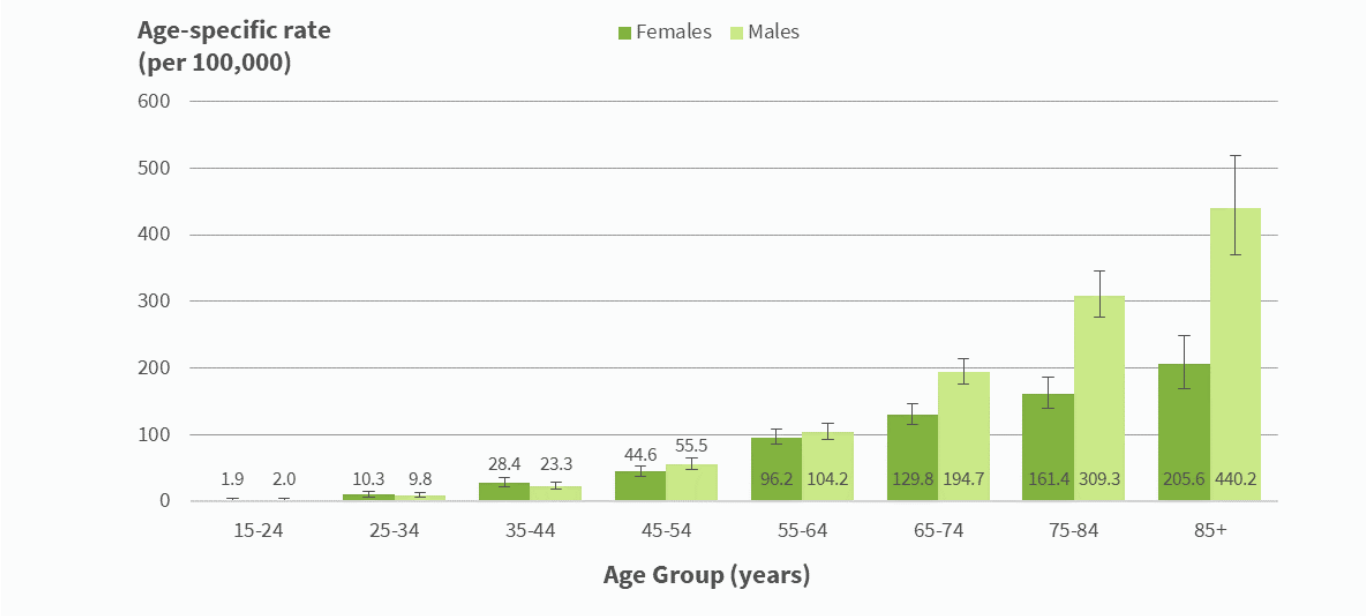


Source: New Zealand Cancer Registry

Melanoma was most common in older age groups

In 2017, melanoma registrations were most common in older age groups. While the rates for melanoma did not differ significantly between sexes in younger age groups (<45 years), as age increases, the difference between males and females increased substantially. For people aged 65 years and older, males have significantly higher rates of melanoma than females. For example, among people aged 85 years and older, males were more than twice as likely as female to be diagnosed with melanoma (figure 3).

Figure 3: Melanoma registration rates, by age group and sex, 2017 (age-specific rate per 100,000 people)

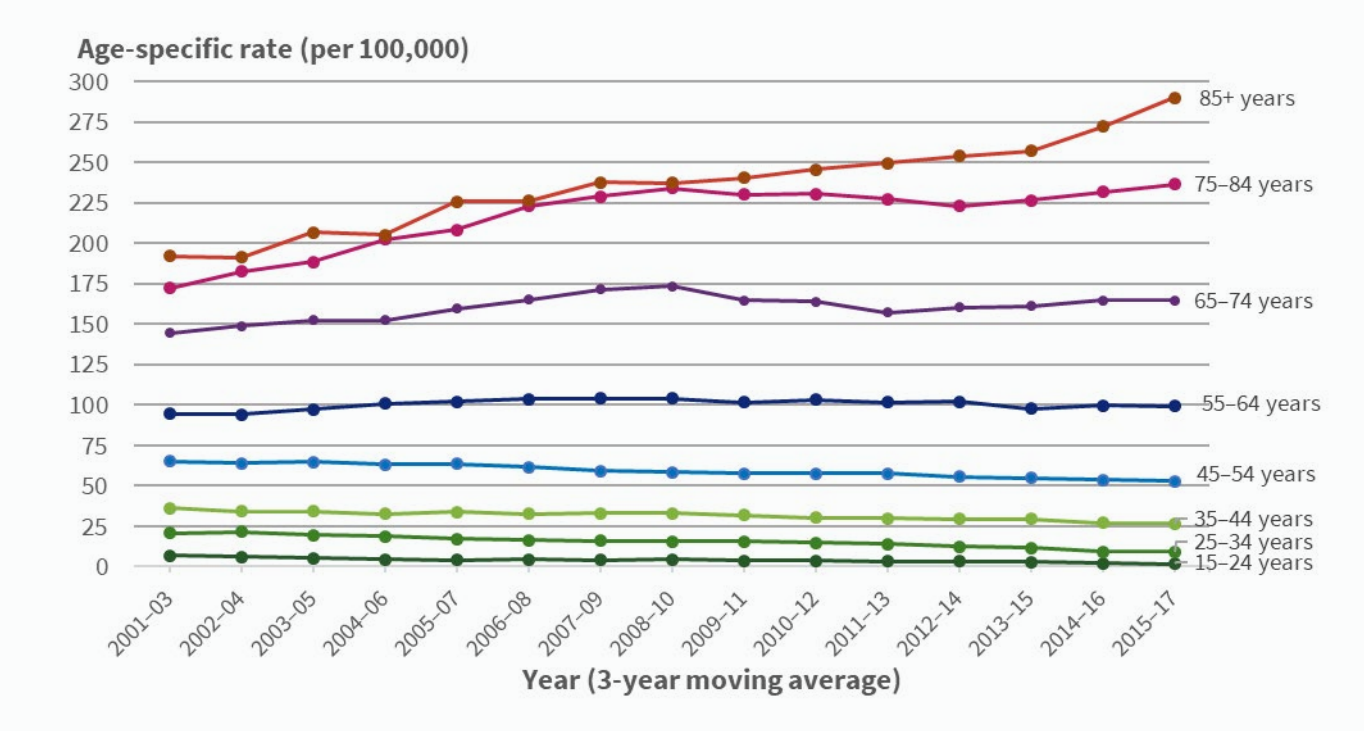


Source: New Zealand Cancer Registry

Melanoma rates were stable among younger and middle-aged people, but increased among older people

Between 2001–2017, rates of melanoma remained fairly consistent for all ages under 54. However, rates for people aged 55 and above increased (Figure 4).

Figure 4: Melanoma registration rates, by age group, 2001–2017, 3-year moving averages (age-specific rate per 100,000)



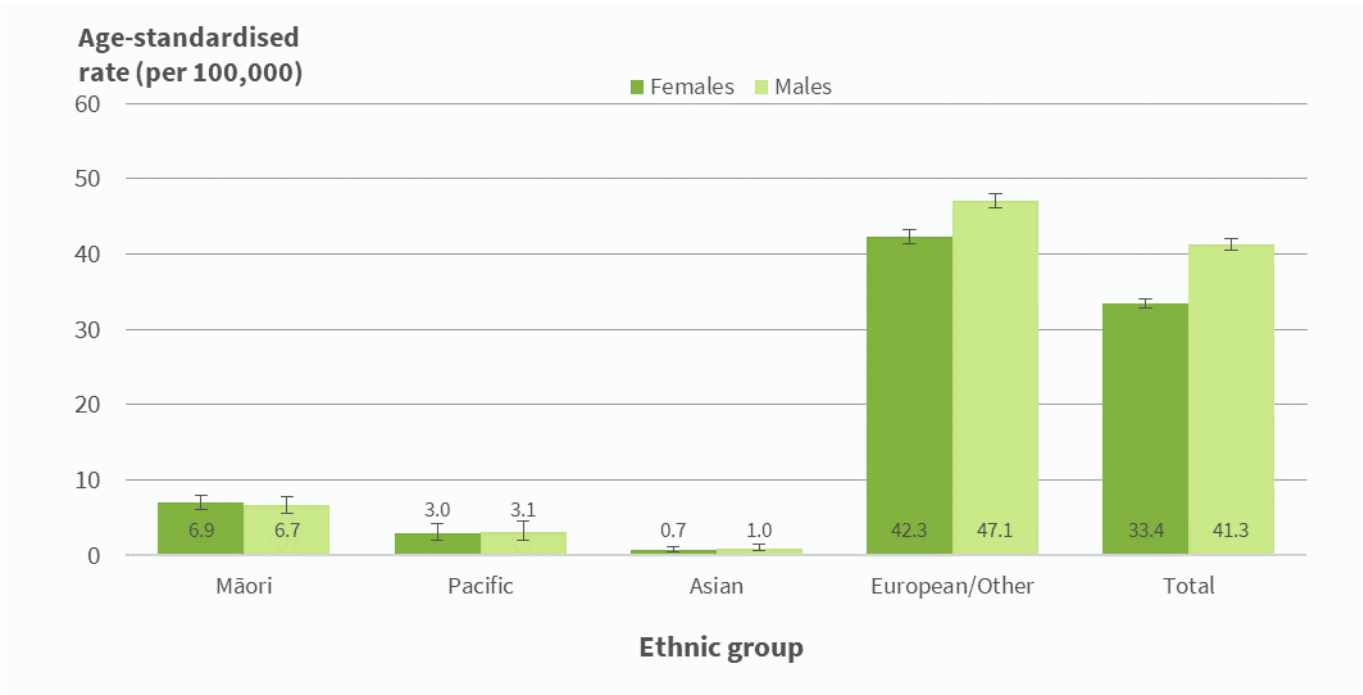
Source: New Zealand Cancer Registry

People of European/Other ethnicity had significantly higher rates of melanoma

In 2017, nearly all melanoma cancer registrations were for people of European/Other ethnicity (2,465 out of 2,550 registrations, 97% of the total). Only a small number of registrations were among Māori (47 registrations), Pacific peoples (4 registrations) and Asians (also 4 registrations).

Standardising for age, Māori, Pacific peoples and Asians had vastly lower rates of melanoma than people of European/Other ethnicity in the ten-year period 2008–2017 (Figure 5). Males had a significantly higher registration rate than females in the European/Other group, however the rates for males and females were fairly consistent in the other ethnic groups.

Figure 5: Melanoma registrations in New Zealand, by sex and ethnic group, 2008–17 (age-standardised rate per 100,000)

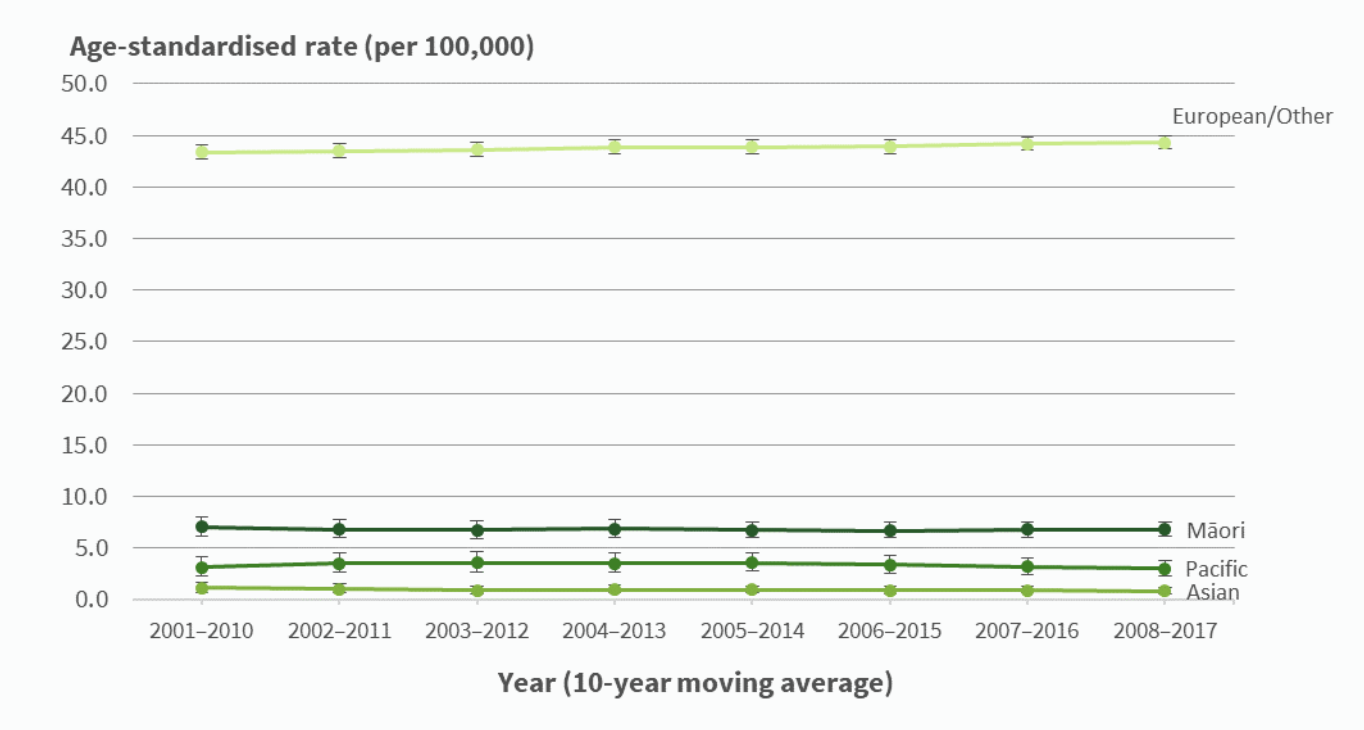


Note: Prioritised ethnic groups have been used.
Source: New Zealand Cancer Registry

Stable registration rates for all ethnicities

The age-standardised rates of melanoma cancer registrations for all ethnicities have remained reasonably stable since 2001 (Figure 6).

Figure 6: Melanoma registrations in New Zealand, by ethnic group, 2001–2017 (age-standardised rate per 100,000)

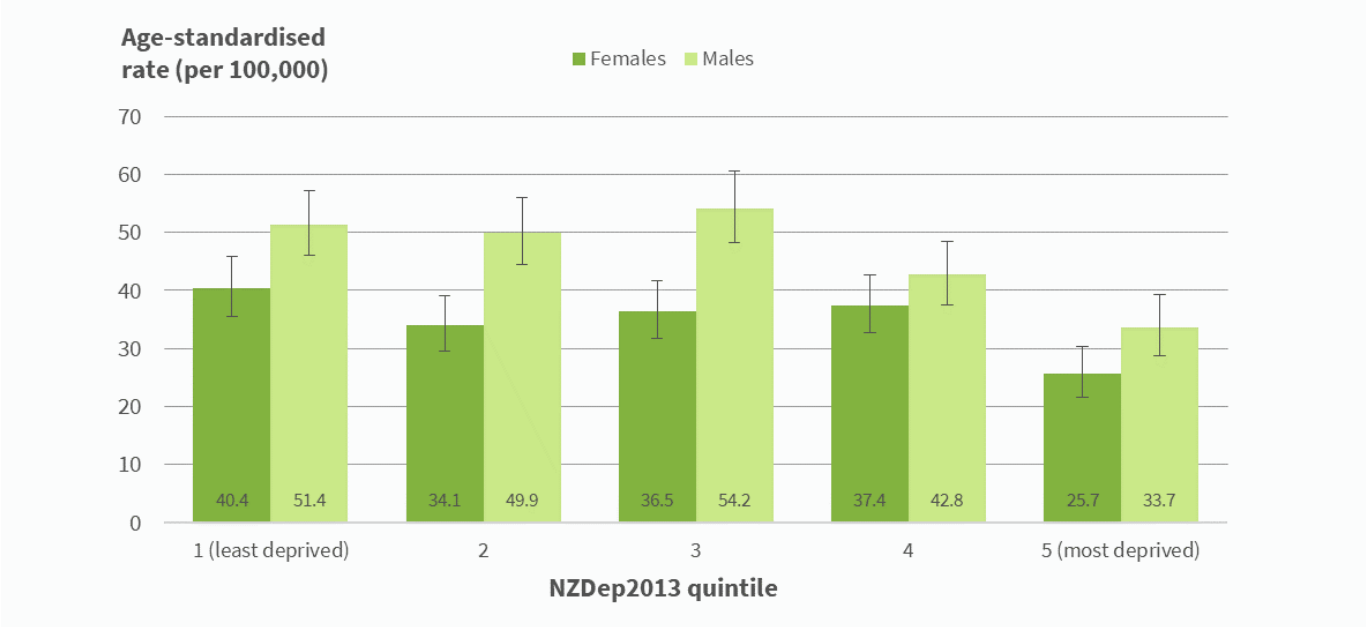


Source: New Zealand Cancer Registry

Lower melanoma rates in the most deprived areas

The melanoma registration rates were lower in the most deprived areas (NZDep2013 quintile 5) than in other NZDep2013 quintiles in 2017, for both sexes (Figure 7).

Figure 7: Melanoma registrations, by sex and NZ Index of Deprivation 2013 quintiles, 2017 (age-standardised rate per 100,000)



Source: New Zealand Cancer Registry

Higher melanoma registration rates in secondary urban areas

In 2017, the melanoma registration rates for both sexes were highest in secondary urban areas (Figure 8).

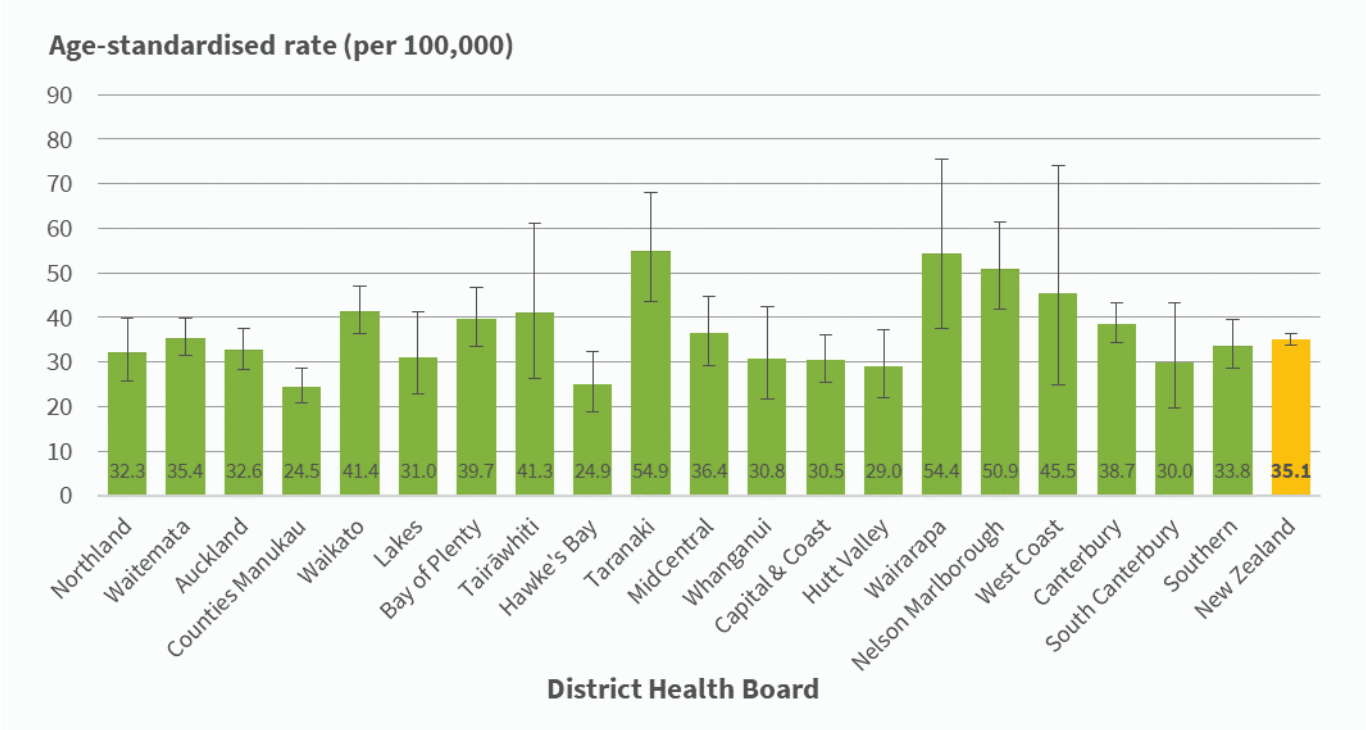
Figure 8: Melanoma registrations, by sex and urban/rural classification, 2015–17 (age-standardised rate per 100,000)

Note: 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 with a population 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

Highest melanoma registration rates in Taranaki and Wairarapa DHBs

There were notable regional differences between registration rates in 2017 (Figure 9). The highest rates were in Taranaki, Wairarapa and Nelson Marlborough District Health Boards (DHBs), while the lowest occurred in Hutt Valley, Hawke's Bay and Counties Manukau DHBs.

Figure 9: Melanoma registrations by district health board, 2017 (age-standardised rate per 100,000)



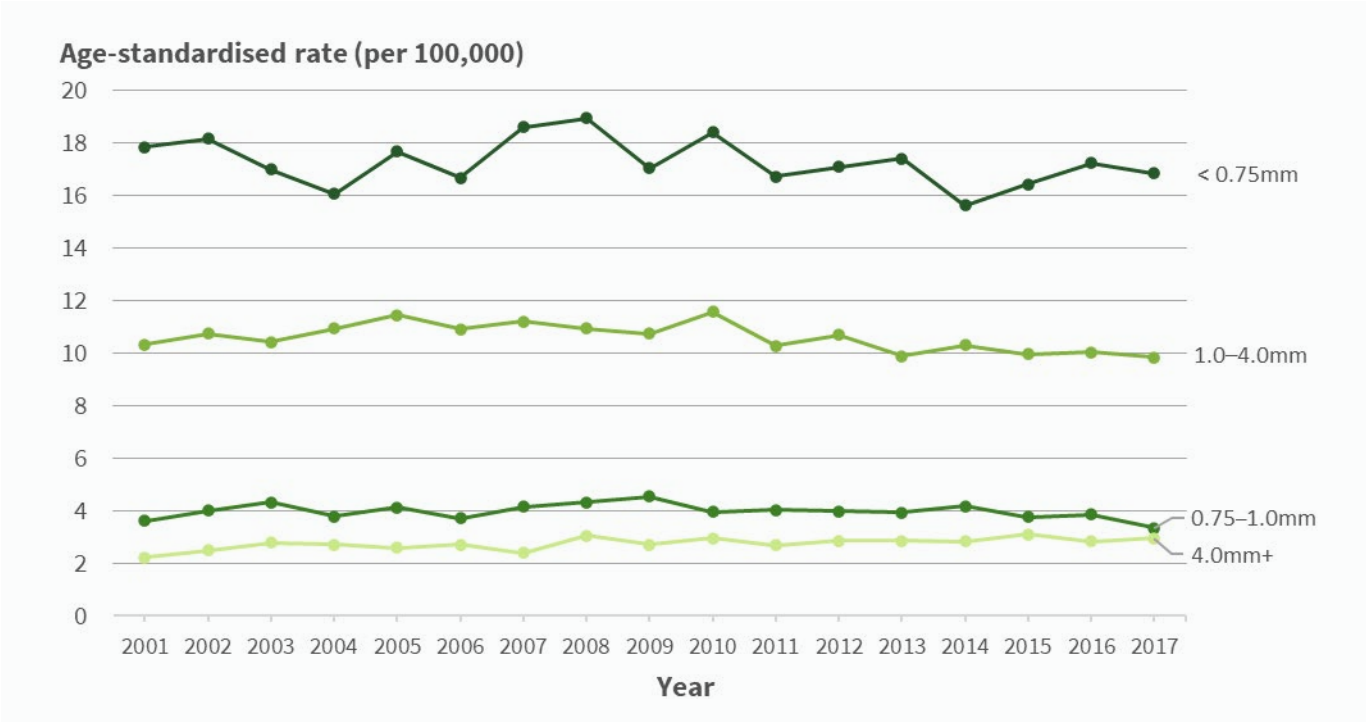
Source: New Zealand Cancer Registry

Fairly stable rates of thicker melanoma

The thickness of melanoma at diagnosis ('Breslow's thickness') is a key measure of prognosis. The thinner the melanoma, the better the chance of recovery.

In 2017, of the 2,389 melanomas with known thickness, 48.9% (1168) were less than 0.75mm thick, 9.8% (233) were 0.75–1.0mm, 30.6% (731) were 1.0–4.0mm, and 10.8% (257) were 4.0mm thick or more. The rates of all melanoma thicknesses have remained fairly stable, with no significantly changes since 2001 (Figure 10).

Figure 10: Melanoma registrations by thickness, 2001–2017 (age-standardised rate per 100,000)

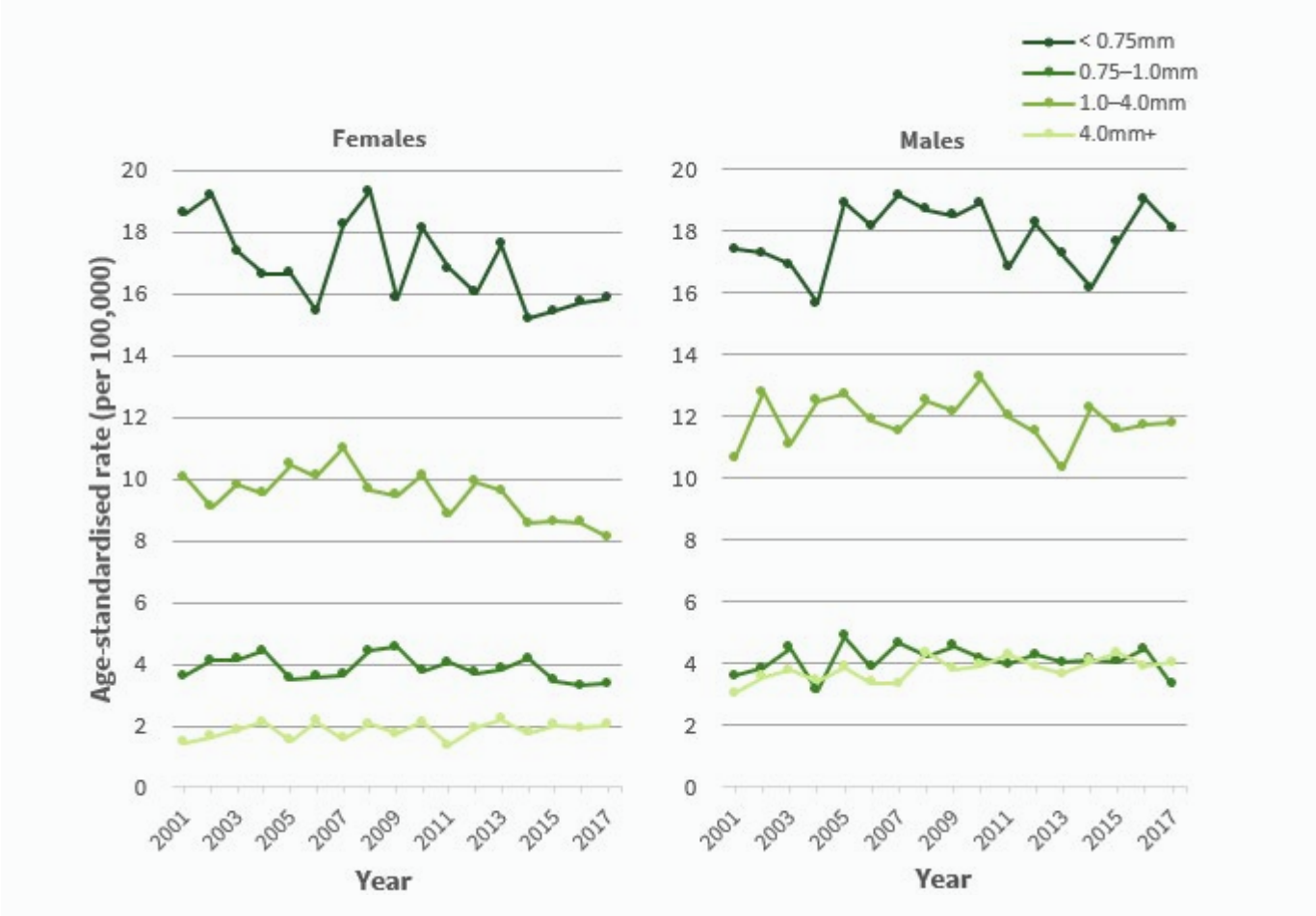


Source: New Zealand Cancer Registry

Males had higher rates of thick melanoma

Males had a greater prevalence of thick melanoma (4.0mm+) than females in 2017 (6.1% of all registrations vs. 4.0%). The age-standardised rate of thicker melanoma was significantly higher for males as for females in 2017. In that year, the rate for males was 4.1 (95% confidence interval 3.4–4.8) compared to 2.0 (1.6–2.5) per 100,000 for females. (Figure 11).

Figure 11: Melanoma registrations by thickness and sex, 2001–2017 (age-standardised rate per 100,000)



Source: New Zealand Cancer Registry

Data for this indicator

Data for this indicator is derived from the New Zealand Cancer Registry - a registry of all cancers (excluding non-melanoma skin cancer) in New Zealand, maintained by the Ministry of Health. This indicator reports registrations of melanoma (ICD-10AM C43) from 2001–2017. Age-standardised rates have been presented to account for differences in the age structure of population groups.

Unless otherwise stated, all differences mentioned in the text between two values are statistically significant at the 5% level or less. Confidence intervals are presented as error bars on graphs.

References

Global Cancer Observatory. 2018. *Global Cancer Observatory: Cancer Today.* Accessed: 11/03/2020
URL: **https://gco.iarc.fr/today**

Ministry of Health. 2019. *New Zealand Cancer Registry.* Wellington: Ministry of Health.

WHO. 2006. *Solar Ultraviolet Radiation: Global burden of disease from solar ultraviolet radiation.* Geneva: World Health Organization.

Other UV Exposure topics include:

UV levels | **Non-melanoma skin cancer** | **Vitamin D deficiency**

Author

The author of this factsheet is Patrick Hipgrave. ehinz@massey.ac.nz

Citation

Environmental Health Indicators. 2020. *Melanoma mortality.* [Factsheet]. Wellington: Environmental Health Indicators Programme, Massey University.

Further information

For descriptive information about the data **Metadata Sheet**

Visit our website

Subscribe to our newsletter