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Melanoma cancer registrations

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

Key facts

In 2019, there were 2,727 registrations of melanoma in New Zealand. The melanoma registration rate has decreased for females, while the rates have remained stable for males in the last 19 years.

Melanoma rates were highest in males, European/Other ethnicity and older adults, especially for people aged 75+ years and over.

In 2019, the percentage of melanomas with thickness larger than 2mm were greater for Māori than non-Māori, indicating a lower chance of survival, despite the lower registration rates in Māori.

Melanoma registration rates continue to be lower in the most deprived areas (NZDep2013 quintile 5) than in other quintiles since 2001.

Taranaki District Health Board (DHB) had the highest rate of melanoma in 2018 and 2019.

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

Melanoma is a serious form of skin cancer, and New Zealand has the highest rates in the world (Cancer Control Agency 2021). In 2019, there were 2,727 registrations of melanoma in New Zealand. Melanoma was the 3rd most commonly registered cancer in 2018 for males (behind prostate cancer and colon cancer) and for females (behind breast and colon cancer).

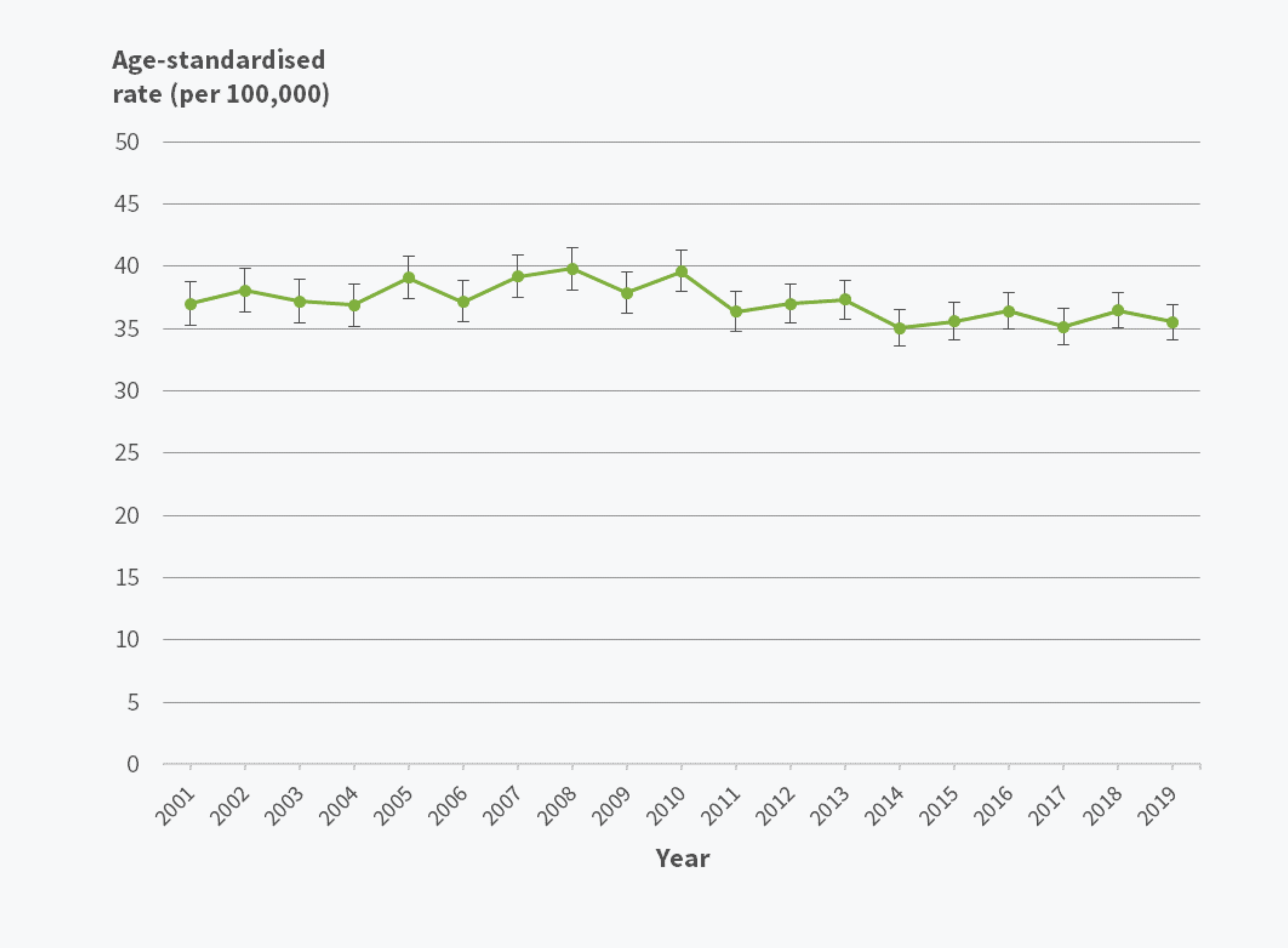
Overexposure to UV radiation from the sun is the main environmental risk factor for melanoma. It has been estimated that 80–96% of all melanoma cases can be attributed to UV radiation exposure (WHO 2006). The following factors increase the risk of melanoma:

- 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

The overall melanoma registration rate have stayed fairly stable since 2001 (Figure 1). In 2019, the age-standardised melanoma registration rate was 35.5 per 100,000 (95% confidence interval 34.1–36.9).

Figure 1: Melanoma registrations, 2001–2019 (age-standardised rate per 100,000)

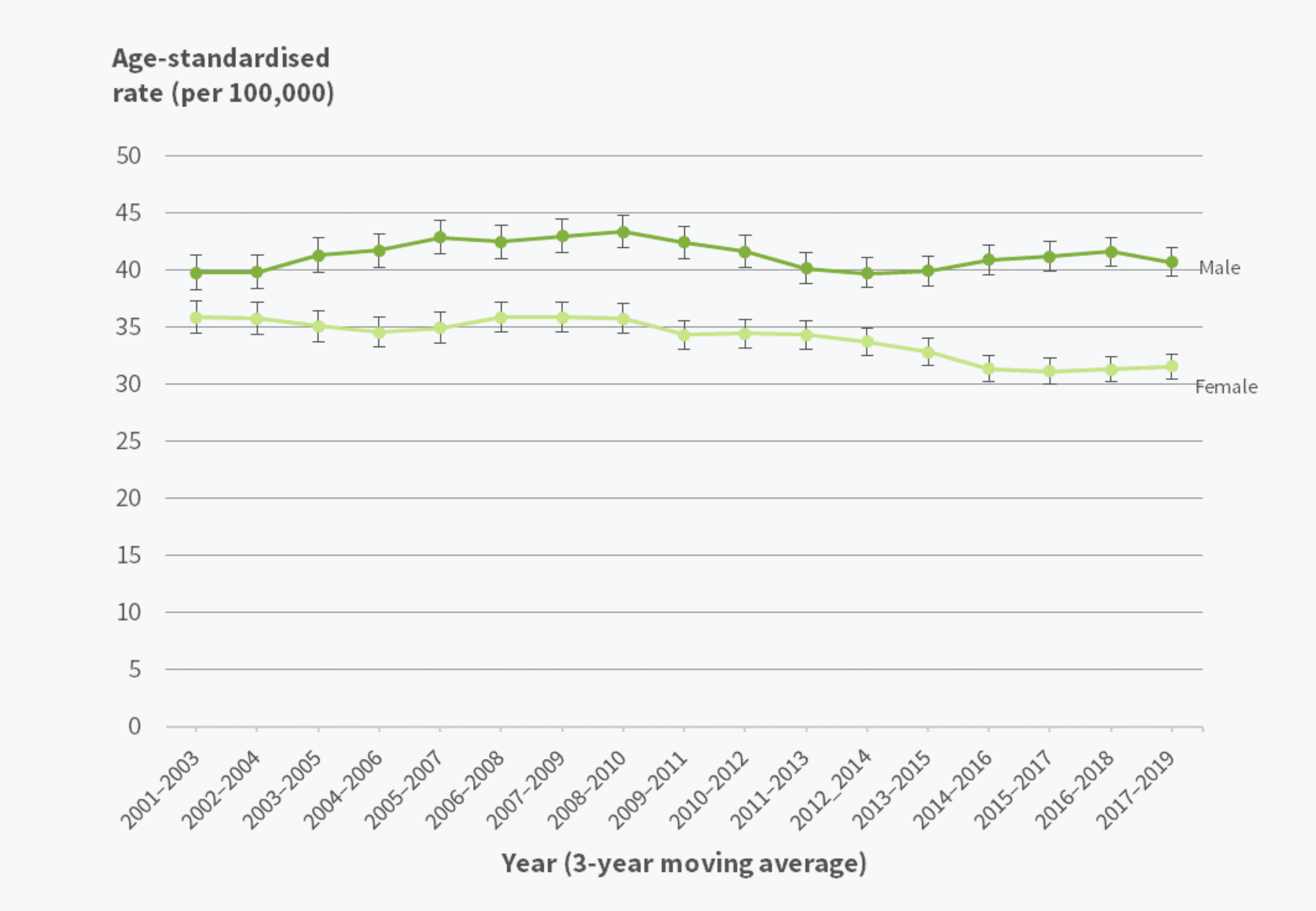


Source: New Zealand Cancer Registry, Ministry of Health 2020

The melanoma registration rate has always been higher for males than females over the past 19 years (Figure 2). In 2019, the melanoma registration rate was 39.5 (37.5–41.7) per 100,000 for males, which was 20% higher than the rate of 32.3 (30.4–34.3) per 100,000 for females.

The rate of melanoma for males has remained steady in the last two decades while the rates have decreased by 12% in females from 35.8 per 100,000 in 2001–2003 to 31.5 per 100,000 in 2017–2019.

Figure 2: Melanoma registrations, by sex, 2001–2019 (age-standardised rate per 100,000)



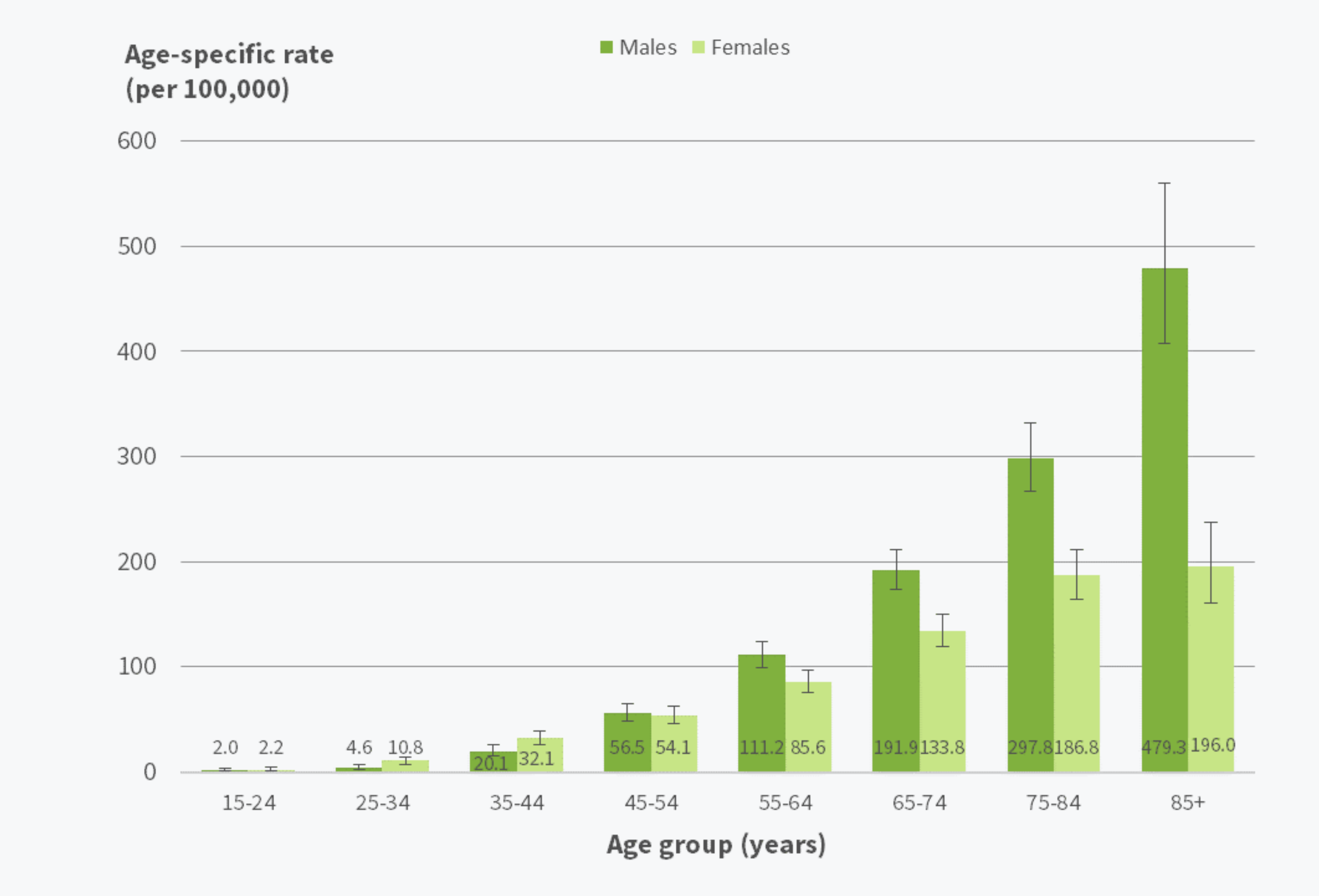
Source: New Zealand Cancer Registry, Ministry of Health 2020

Males and older adults were most affected by melanoma

The chance of developing melanoma increases with age. In 2019, by the age of 55 years, males are more likely than females to be diagnosed with melanoma. This difference in rates rises substantially with increasing age. By age 85 years and over, males are 2.4 times as likely as females in that age group to be diagnosed with melanoma (Figure 3). Sex differences are likely due to a combination of behavioural and biological factors (BPAC part 1 2020).

However, in the 35–44 years age group, females had a slightly higher age-specific melanoma rate than males. Other than that, there was no difference in the rates of melanoma between sexes in the younger age groups (<55 years).

Figure 3: Melanoma registrations, by age group and sex, 2019 (age-specific rate per 100,000)



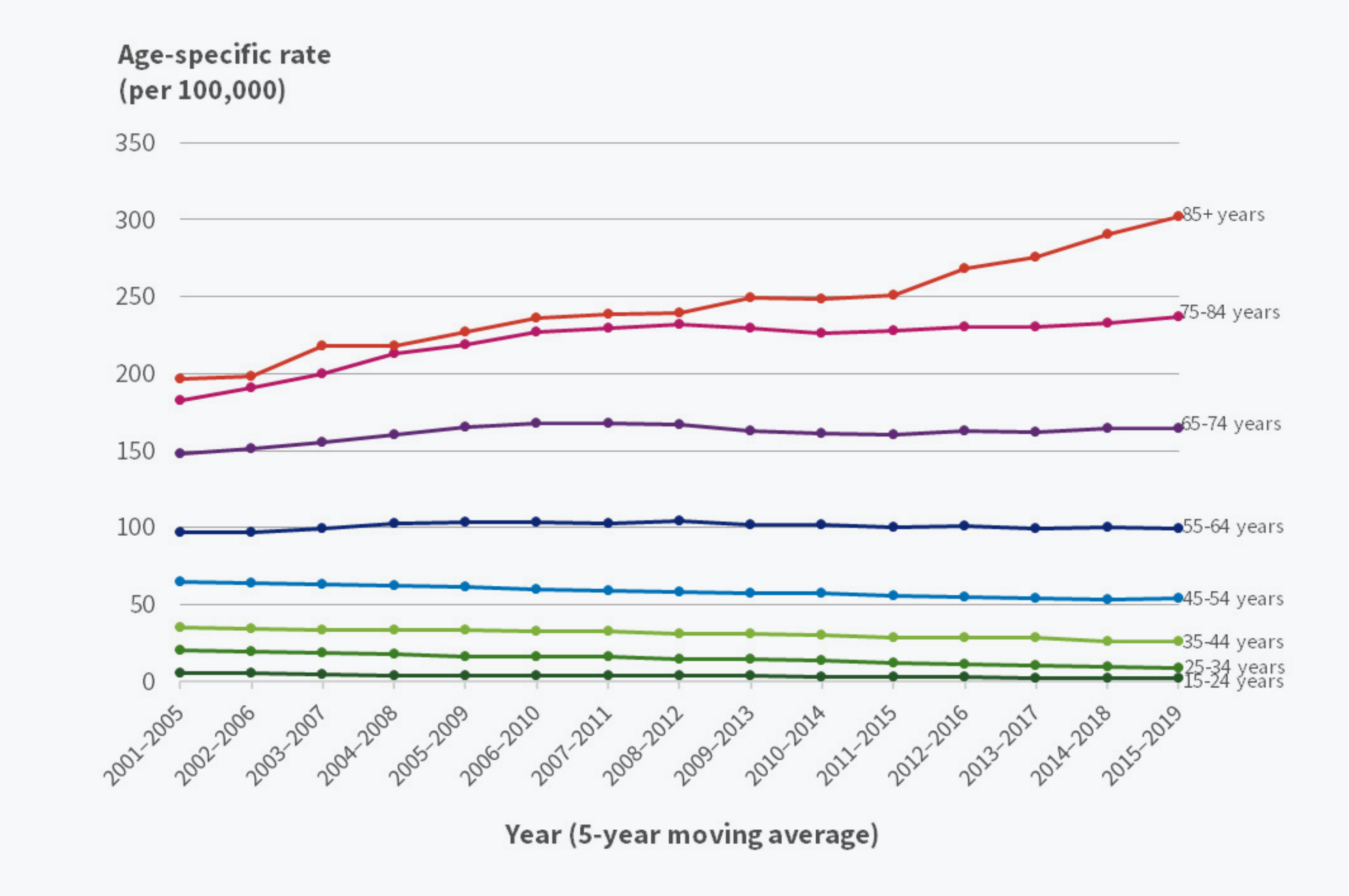
Source: New Zealand Cancer Registry, Ministry of Health 2020

Melanoma rates increased among older age groups but decreased in other age groups

The melanoma registration rate continues to increase among the older population, with a 50% increase in rate for people aged 85 years and over between 2001–2005 and 2015–2019. However, the rates of melanoma among young and middle-aged people of 15–24 years, 25–34 years, 35–44 years and 45–54 years have decreased from 2001–2005 to 2015–2019 (Figure 4).

Melanoma is a type of skin cancer that predominately affects the elderly. Because New Zealand has an ageing population, an increase in the number of cancer registrations is expected (Ministry of Health 2019).

Figure 4: Melanoma registrations, by age group, 2001–2019, 5-year moving averages (age-specific rate per 100,000)



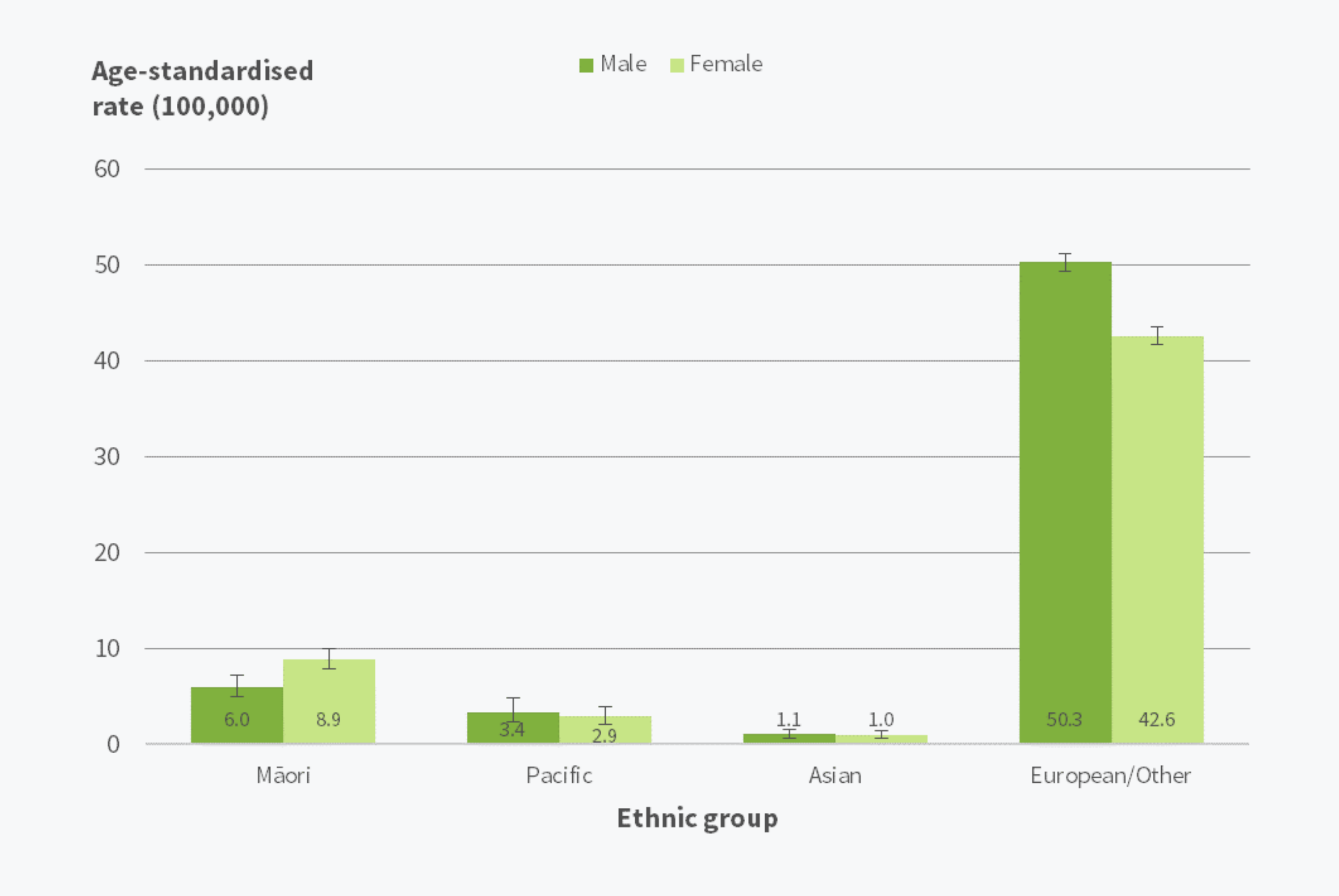
Source: New Zealand Cancer Registry, Ministry of Health 2020

Melanoma rates among European/Other ethnicity is five times the rate among Māori

In 2019, almost all melanoma cancer registrations were for people of European/Other ethnicity (2610 out of 2727 registrations, 96%). Only a small number of registrations were among Māori (70 registrations), Pacific people (6 registrations) and Asian (7 registrations).

Melanoma among European/Other ethnicity is five times the rate among Māori. Males had a higher rate than females in the European/Other ethnic group (Figure 5). This has been consistent since 2001–2010.

Figure 5: Melanoma registrations, by sex and ethnic group (prioritised), 2010–19 (age-standardised rate per 100,000)

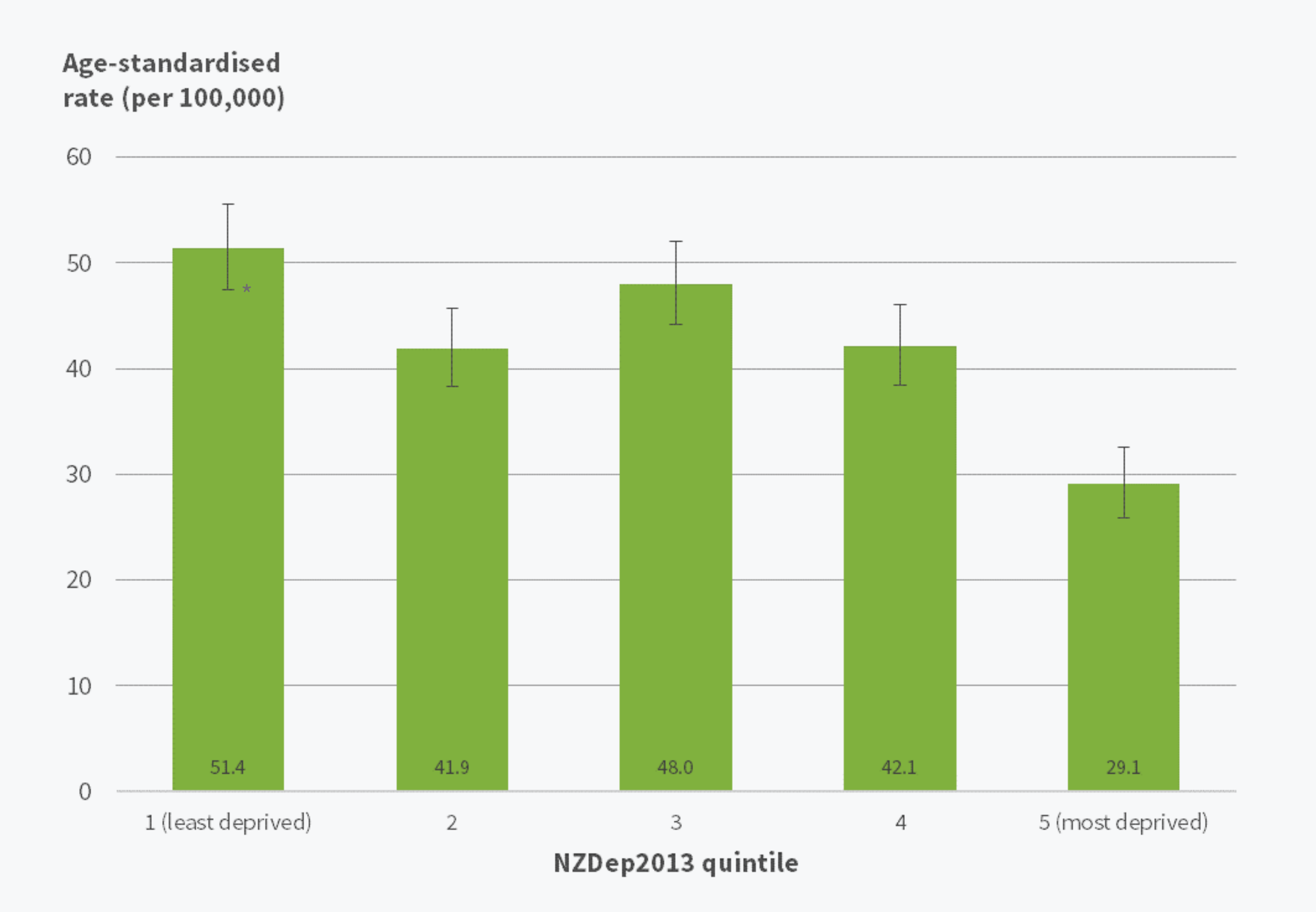


Note: Prioritised ethnic groups have been used.
Source: New Zealand Cancer Registry, Ministry of Health 2020

Lower melanoma registration rates in the most deprived areas

In 2019, the melanoma registration rates were lower in the most deprived areas (NZDep 2013 quintile 5) than in other quintiles (Figure 6). This trend has been consistent since 2001.

Figure 6: Melanoma registrations, by area deprivation (NZDep2013), 2019 (age-standardised rate per 100,000)

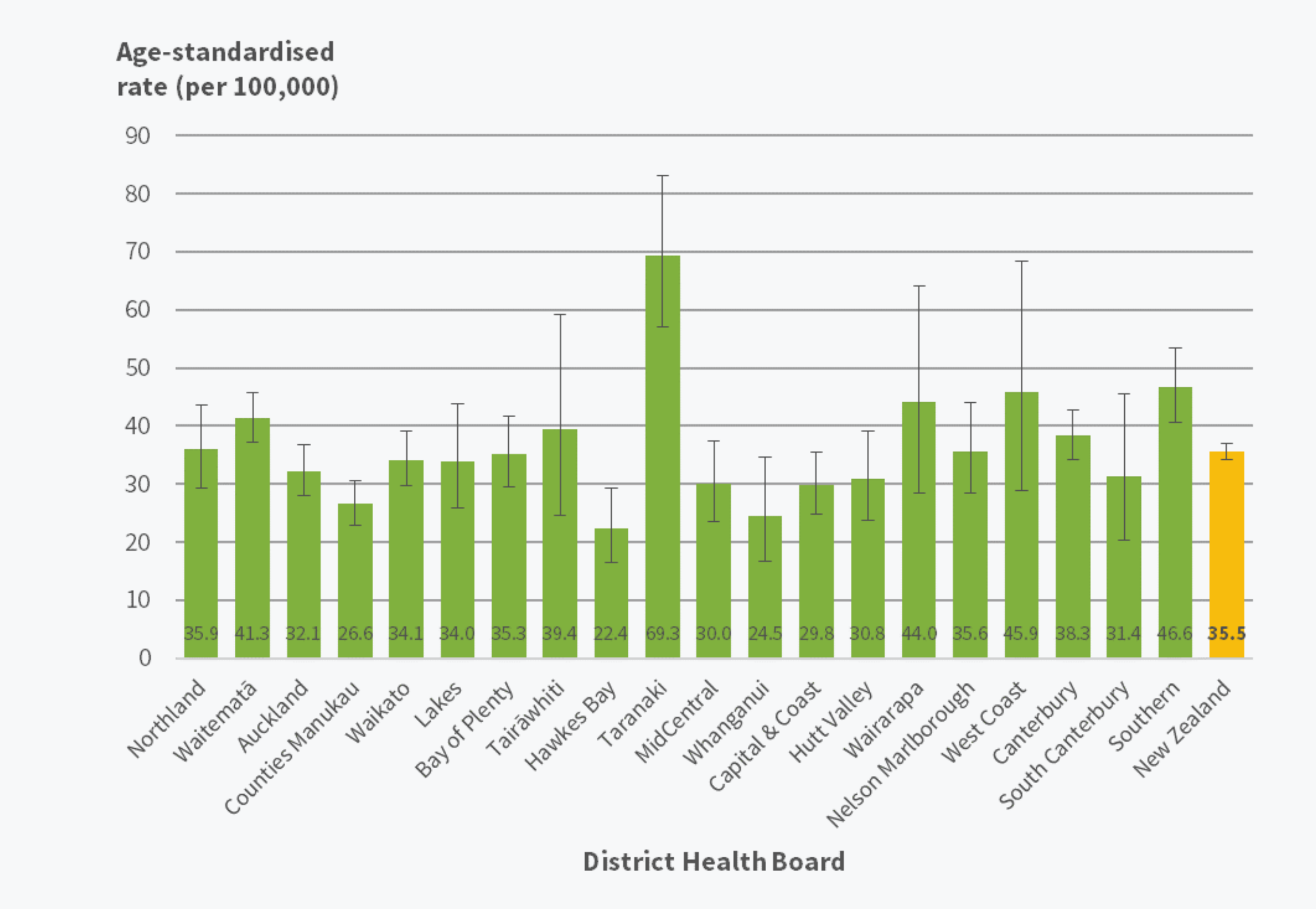


Source: New Zealand Cancer Registry, Ministry of Health 2020

Taranaki District Health Board (DHB) had the highest rate of melanoma registration

In 2019, the highest registration rates were in Taranaki DHB, with the rate of 69.3 per 100,000 (134 registrations) (Figure 7). This was the same in 2018.

Figure 7: Melanoma registrations, by district health boards, 2019 (age-standardised rate per 100,000)



Note: The statistical test for differences between rates in the above graph uses a multiple testing adjustment. Please note that the adjusted values used for multiple testing may not be reflected in the above graph
Source: New Zealand Cancer Registry, Ministry of Health 2020

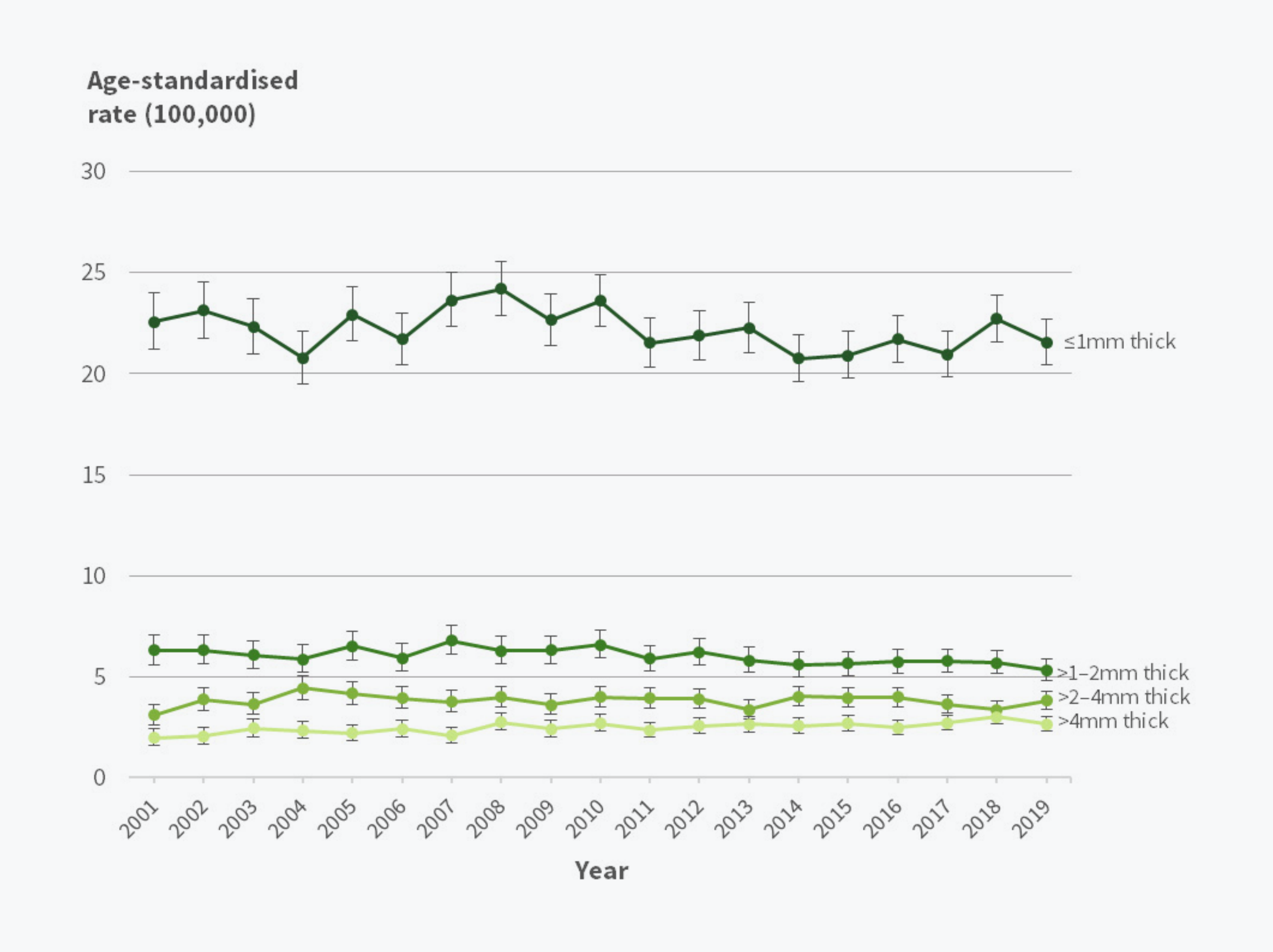
No change in melanoma thickness since 2001

Melanoma lesion thickness is the strongest predictor of prognosis. In general, the thinner the lesion, the better the outcome for the patient (BPAC part 2 2020).

In 2019, of the 2,547 melanomas with known thickness, 61.7% (1571) were ≤ 1mm thick, 16.1% (410) were >1–2mm thick, 12.6% (321) were >2–4mm thick, and 9.6% (245) > 4mm thick.

The rates by melanoma thickness have remained fairly stable since 2001 (Figure 8).

Figure 8: Melanoma registrations, by melanoma thickness, 2001–2019 (age-standardised rate per 100,000)

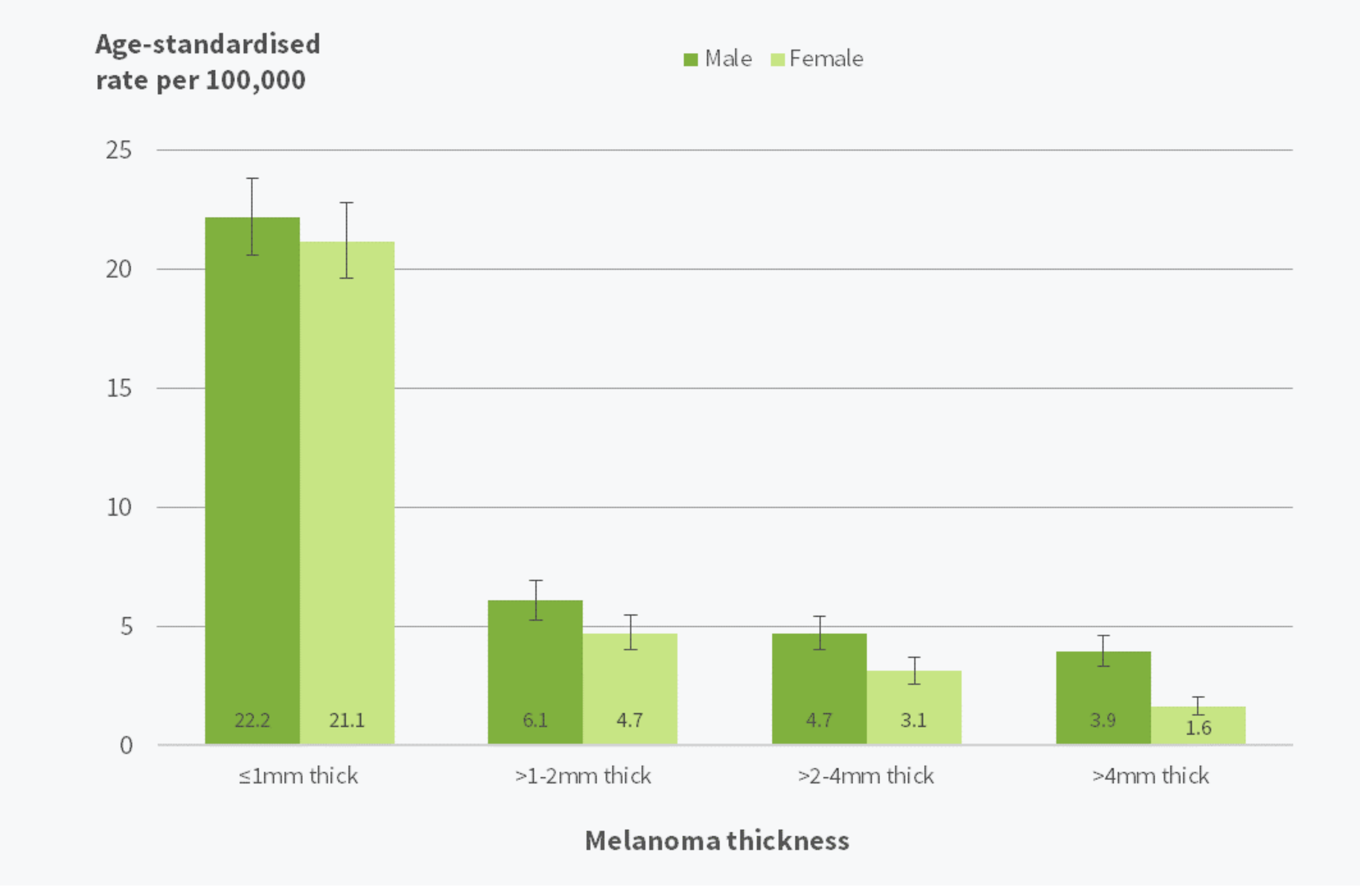


Note: Thickness is measured using Breslow's thickness. Thickness categories are based on BPAC guidelines (BPAC part 2 2020)
Source: New Zealand Cancer Registry, Ministry of Health 2020

Males have higher rates of thick melanoma

Males had a higher percentage of thick melanoma (>4mm) than females in 2019 (6.7% of registrations vs. 10.9%). In that year, the rate of thickest melanoma (>4mm) was twice as high for males (3.9 per 100,000) as for females (1.6 per 100,000) (Figure 9). This disparity has been consistent since 2001.

Figure 9: Melanoma registrations, by melanoma thickness and sex, 2019 (age-standardised rate per 100,000)



Source: New Zealand Cancer Registry, Ministry of Health 2020

The percentage of thick melanomas were greater for Māori than non-Māori

In 2019, of the 2,516 melanomas with known thickness and ethnicity, the percentage of melanomas with thickness larger than 2mm were greater for Māori compared with Non-Māori (Table 1) despite the lower age-standardised rate in Māori (Figure 4). This result was also evidenced in the previous article where Māori presented with melanomas that were thicker (>3.0mm) than those in non-Māori people and therefore indicating a lower chance of survival (Richardson et al 2008).

Table 1: Melanoma registrations, by melanoma thickness and Māori/non-Māori, 2019

Ethnic group	≤1.0mm (n,%)	>1–2mm (n,%)	>2mm–4mm (n,%)	>4mm (n,%)	Total
Māori	35 (56.5%)	7 (11.3%)	11 (17.7%)	9 (14.5%)	62
Non-Māori	1516 (61.8%)	397 (16.2%)	307 (12.5%)	234 (9.5%)	2454
Total	**1551**	**404**	**318**	**243**	**2516**

Source: New Zealand Cancer Registry, Ministry of Health 2020

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 2001–2019. Age-standardised rates presented in this factsheet take into account varying age distributions when comparing between populations.

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.

For additional information, see the metadata link below.

References

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Author

The author of this factsheet is Shunnie Xie **ehinz@massey.ac.nz**

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Further information

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

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