Melanoma Deaths

This factsheet presents information about rates of melanoma mortality in New Zealand. New Zealand has consistently been among the countries with the worst melanoma mortality rates worldwide.

Key facts

362 In 2016, there were 362 deaths from melanoma in New Zealand.



The mortality rate for melanoma has remained fairly stable since 2001.



Melanoma mortality rates were highest among males and older age groups. Almost all melanoma deaths were among people of European/other ethnicity (348 out of 362, 96%).



The highest mortality rates occurred in secondary urban areas. The district health boards (DHBs) with the highest mortality rates were Wanganui and Northland DHBs. Rates were relatively similar across socioeconomic deprivation quintiles (NZDep2013).

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 among the most common cancers in New Zealand. According to the most recent available data, New Zealand has the highest age-standardised rate of melanoma mortality and the second-highest incidence rate in the world (Global Cancer Observatory 2018) (Figure 1).



Figure 1: Melanoma mortality 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: New Zealand: 2004–2013, Australia, Norway, Denmark and The Netherlands: 2006–2015. **Source:** Global Cancer Observatory 2018

Melanoma mortality rates remained relatively stable

In 2016, 362 people died from melanoma in New Zealand. The melanoma mortality rate has remained relatively stable since 2001 (Figure 2).

The melanoma mortality rate has been consistently higher for males than females over the last 15 years. Deaths among males represented two thirds of the deaths from melanoma in 2016 (242 male deaths compared with 120 female deaths). In that year, the rate of melanoma deaths for the total population was 4.5 per 100,000 (95% confidence interval 4.0–5.0). The rate for males was 6.4 (5.6–7.2), which is significantly higher than the rate for females, 2.8 per 100,000 (2.3–3.4).





Melanoma deaths were most common in older age groups

In 2015–16, melanoma deaths were most common in older age groups. While rates among people aged 54 or younger are roughly equal between sexes, the difference between mortality rates for each sex increases with age. In age groups above the age of 55, men have significantly higher mortality rates than women.



Figure 3: Melanoma registration rates, by age group and sex, 2015–2016 (age-specific rate per 100,000 people)

Melanoma mortality rates increased in older age groups

Between 2001–16, mortality rates remained fairly stable for all ages under 74. However, the mortality rates for age groups 75–84 and 85+ years increased substantially during this period (Figure 4).





Mostly people of European/Other ethnicity affected

In 2016, nearly all melanoma deaths were among people of European/Other ethnicity (348 out of 362 deaths, 96% of the total). Only a small number of deaths were among Māori (10 deaths), Pacific peoples (1 death) and Asians (3 deaths).

Standardising for age, Māori, Pacific peoples and Asians had vastly lower mortality rates than people of European/Other ethnicity in the 10-year period 2007–16 (Figure 5).

Figure 5: Melanoma mortality in New Zealand, by sex and ethnic group, 2007–16 (age-standardised rate per 100,000)



Note: The mortality rate for Asian females is suppressed as there were only 4 deaths during this period. **Source:** New Zealand Mortality Collection

Relatively stable rates for Māori and European/Other ethnicities

The age-standardised rates of melanoma mortality for Māori and European/Other ethnicities have remained fairly stable since 2001 (Figure 6.)



Figure 6: Melanoma mortality rates in Māori and European/other ethnic groups, 2001–16 (age-standardised rate per 100,000)

Note: Rates for Pacific peoples and Asians are based on low registration counts (an average of 18 and 11 deaths every 10 years respectively), so may be unreliable.

Mortality rates were consistent across socioeconomic deprivation quintiles

The melanoma mortality rates were relatively similar across NZ Index of Deprivation 2013 quintiles in 2015–16, for both sexes (Figure 7). The mortality rate for males was significantly higher than the rate for females in all quintiles.



Figure 7: Melanoma mortality, by sex and NZDep2013 quintiles, 2015–16 (age-standardised rate per 100,000)

People living in secondary urban areas had higher melanoma mortality rates

In 2015–16, the melanoma mortality rate was somewhat higher in secondary urban areas, particularly for males (Figure 8).



Figure 8: Melanoma mortality rates, by sex and urban/rural classification, 2015–16 (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 Mortality Collection

Highest melanoma mortality rates in Whanganui and Northland DHBs

There were regional differences in the mortality rate in the five-year period 2012–16 (Figure 9). The highest rates were in Whanganui and Northland District Health Boards (DHBs), while the lowest occurred in Capital & Coast and Counties Manukau DHBs.



Figure 9: Melanoma mortality rates by District Health Board, 2012–16 (age-standardised rate per 100,000)

Data for this indicator

Data for this indicator is derived from the New Zealand Mortality Collection – a registry of all deaths occurring in New Zealand. This indicator reports mortality from melanoma (ICD-10AM C43) from 2001–2016. Data has occasionally been pooled into moving averages for a given range of years to provide sufficient numbers for meaningful analysis. Age-standardised rates have been presented to account for differences in the age structure of population groups.

Unless otherwise stated, all differences between two values mentioned in the text 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: <u>https://gco.iarc.fr/today</u>

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

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Author

The author of this factsheet is Patrick Hipgrave. <u>A ehinz@massey.ac.nz</u>

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