

# **Extreme levels of melanoma and melanoma *in situ* in New Zealand: is ozone depletion to blame?**

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## **Introduction**

An increase in the number of patients presenting with primary cutaneous melanoma resulted in the undertaking of this study. The primary objective was to ascertain the incidence of melanoma in this region and to compare the findings with those of other regions, both within New Zealand and other countries.

## **Method**

Data were obtained from retrospective review of histology reports from a pathology laboratory servicing the public and private health systems in greater Tauranga (Tauranga and Western Bay of Plenty Districts). Primary cutaneous melanoma (including both invasive melanoma and melanoma *in situ*) reported from January 1<sup>st</sup> to December 31<sup>st</sup> 2002 were included. The denominator population consisted of non Maori in this area identified from the 2001 New Zealand Census.

## **Results**

The age standardised incidence of invasive melanoma, in non-Maori population of the greater Tauranga region, was 79/100 000. The age standardised rate for the entire population was 70/100 000. The rate of *in situ* disease was 78/100 000 for non- Maori, and 72/1000 000 for the entire population.

## **Discussion**

The Tauranga region of New Zealand has a high incidence of invasive melanoma and melanoma-*in-situ*.

This is most likely related to environmental, geographic and societal factors including ozone depletion.

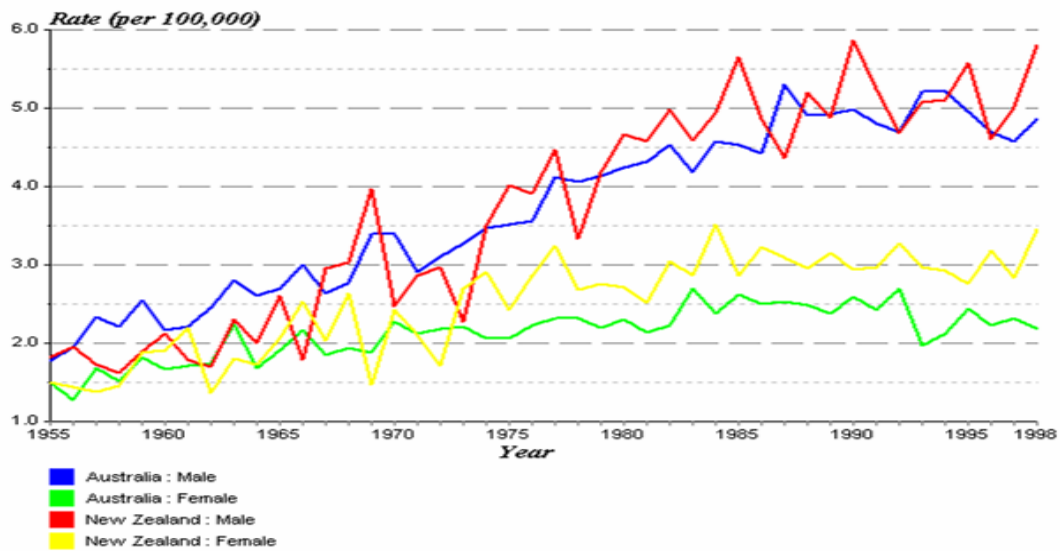
## **References**

- Jones W. Harman R, Ng A et al. Incidence of malignant melanoma in Auckland, New Zealand: highest rates in the world. *World Journal of Surgery* 1999; 23: 732-5
- Queensland Cancer registry. Cancer in Queensland: incidence and mortality 1982 to 2002 statistical tables. In. Springhill: Queensland Cancer Fund, 2004: 39.

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**Invasive melanoma age standardised incidence, Ref 1&2**

Region	Study Year	Age standardised incidence per 100 000 (CI)			
		Non Maori or European		All ethnicities	
		Male	Female	Male	Female
Tauranga/WBOP,NZ	2002	77 (57, 96)	80 (62,98)	71 (53, 88)	73 (56, 89)
Auckland, NZ	1995	58	55		
Northland, NZ	1995-99				
New Zealand	2000			34	32
Queensland	2001			56 (53,59)	41(39, 44)
New South Wales	2002			41	27
Australia	2000			41	32
USA	2000			13	9
Greece	2000			2	2



**Melanoma Mortality in New Zealand and Australia**  
 Compiled from New Zealand Health Information Service