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Ultraviolet radiation

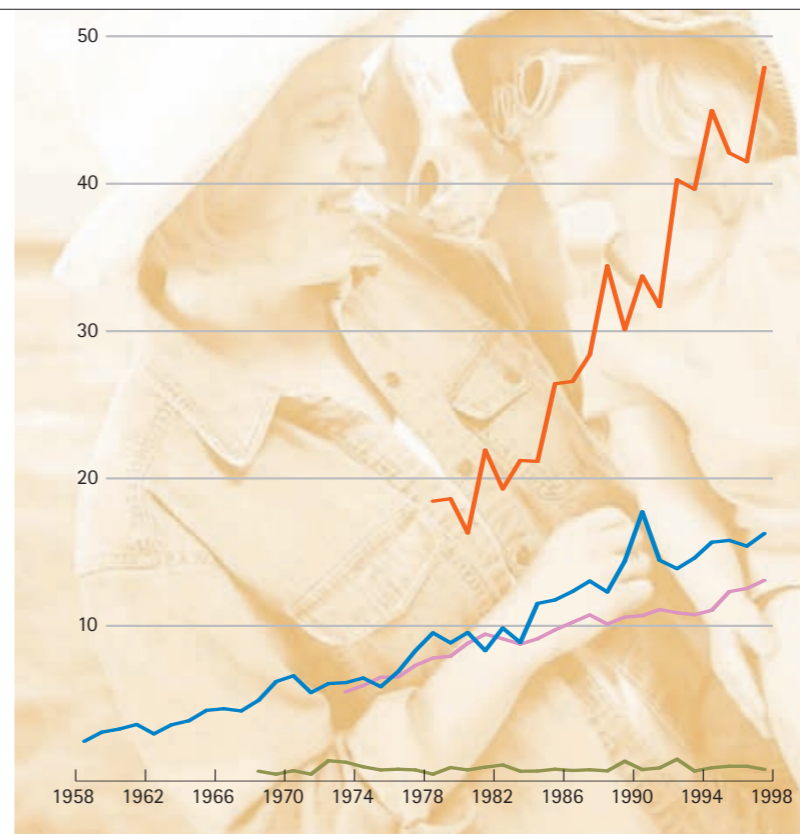
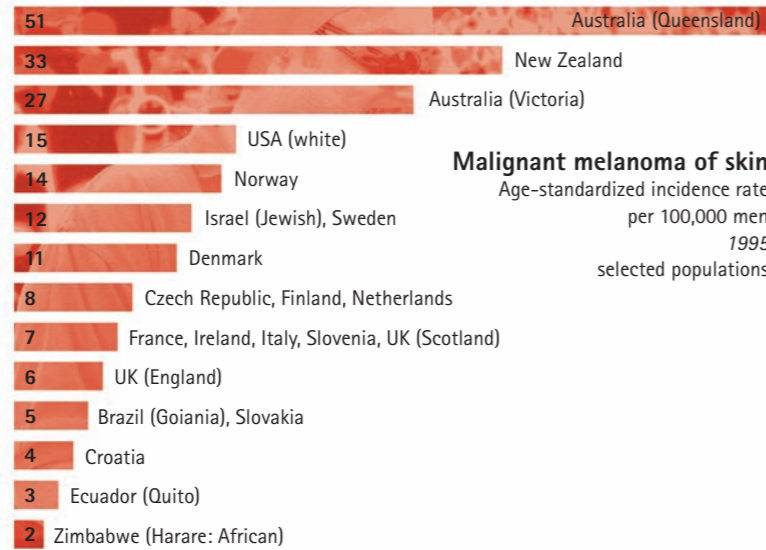
"Slip, Slop, Slap!
Slip on a shirt,
slop on sunscreen
and slap on a hat."
Sid the Seagull's message,
Australian Cancer Council's
SunSmart programme

The major source of ultraviolet (UV) radiation is the sun. The amount of solar irradiation reaching the Earth's surface depends on latitude, time of day and year, and cloud cover. UV radiation is increasing worldwide with the thinning of the protective ozone layer.

UV radiation causes malignant melanoma of the skin and other skin cancers. The risk depends on skin colour, and type, and is higher if exposure occurs in childhood. The incidence of melanoma is high in countries with pale-skinned populations of European origin and high levels of solar irradiation. The incidence of non-melanoma skin cancers is also very high in these countries, and they are the most frequent type of cancer diagnosed, although very rarely fatal.

Melanoma has shown striking increases in incidence in many white-skinned populations, probably because of increasing recreational exposures to UV. In Europe, the melanoma incidence is highest in the north, not the sunny south, probably because intermittent exposure of pale skin is more important as a cause.

The value of sunscreen in protecting against melanoma is controversial. Sunscreens are only a part of a sun-safe strategy, which includes wearing sunglasses, hats and protective clothing, staying out of the sun at midday, and providing shade structures for outdoor venues.



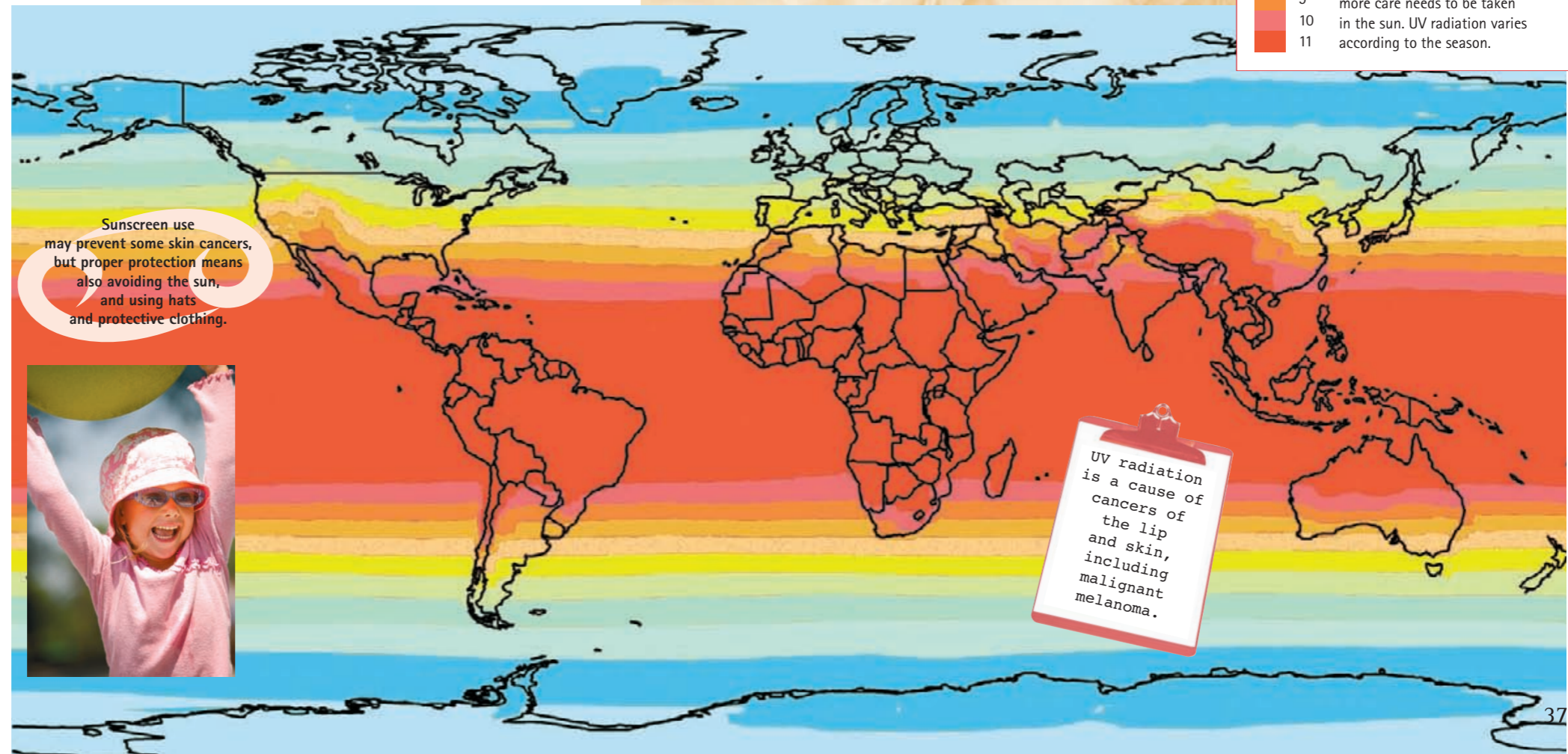
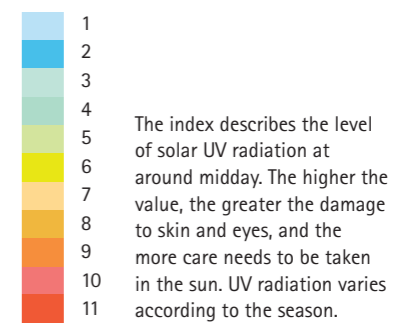
Trends in malignant melanoma of skin

Age-standardized incidence rate per 100,000 women 1958-98 selected populations

- South Australia
- Sweden
- USA (white)
- Singapore (Chinese)

Mean annual UV radiation level

2003 banded according to Global Solar UV Index



Sunscreen use may prevent some skin cancers, but proper protection means also avoiding the sun, and using hats and protective clothing.



UV radiation is a cause of cancers of the lip and skin, including malignant melanoma.