



The role of sunscreens in providing public health advice to protect the harms associated with UV.

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June 3rd 2021 | Meeting of US National Academies Sunscreen Study

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Declaration of Interest

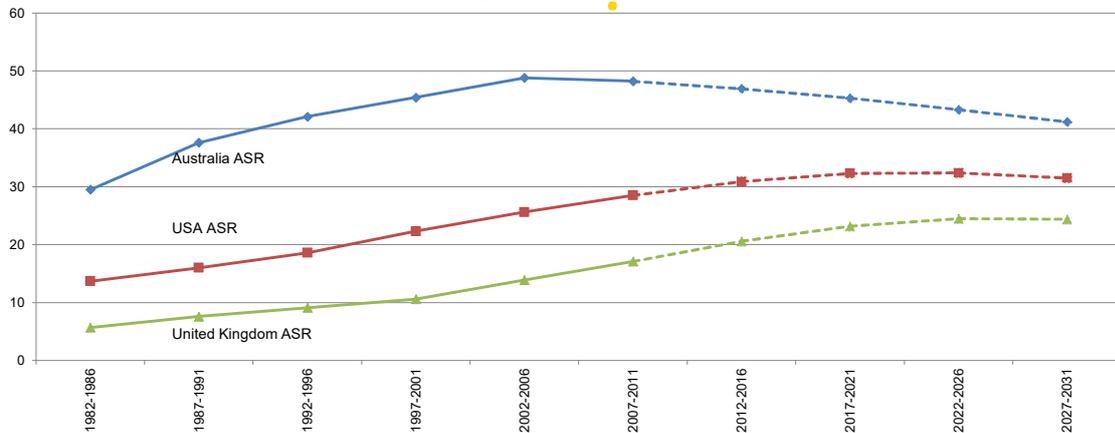
- I work for Cancer Council Victoria which is a member of the Cancer Council Australia (CCA) federation.
- CCA derives income from the sale of sunscreen products that is used to fund cancer research, prevention and support activities



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Trends in melanoma incidence: three moderate to high prevalence countries

Observed and Projected MM Incidences 1982 - 2031



Abbreviation: ASR, age standardized rate (US 2000).
All rates are expressed as number per 100,000 person-years.
Ref: Whiteman DW. Journal of Investigative Dermatology (2016), Vol 136



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Current Public Health Guidelines - Sunscreen

- **Cancer Council Australia**
 - Cancer Council recommends using sunscreen every day on days when the UV Index is forecast to be 3 or above. Sunscreen should be incorporated into your daily morning routine on these days.
 - Sunscreen isn't a suit of armour. It should be used alongside protective clothing, a broad-brim hat, shade and sunglasses
- **American Academy of Dermatology**
 - Use sunscreen every day if you will be outside
- **Canadian Cancer Society**
 - Use sunscreen along with shade, clothing and hats, not instead of them

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|Current Public Health Guidelines - Sunscreen



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Policy Framework – Sunscreens Aust.

- Sunscreens \geq SPF30+ are tax free to consumers
- Sunscreens are regulated as a therapeutic good by the Therapeutic Goods Administration (TGA) ~ equivalent to the US FDA.
 - No SPF's allowed to be marketed above >SPF50+
 - All sunscreen products must be approved by the TGA based on formula, test results against the Australian Standard, quantity of active ingredients etc.
- Cost of sunscreens are a tax-deductible item for outdoor workers



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Attitudes towards sun-protective behaviour in Australians

- N=416 total of 85% of respondents did not apply a sufficient amount of sunscreen.
- Only 32% of individuals reapplied sunscreen every 2 hours and
- 20% never reapplied it.
- Barriers to sunscreen use includes concerns re Vitamin D deficiency (14%) and nanoparticles (13%)



Garbutcheon-Singh_et_al Australasian Journal of Dermatology (2016) 57, 102–107



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Attitudes towards sun-protective behaviour in Australians

- Only 55% (61% in 2014) of adults (adolescents 70%) believe that sunscreens can be used safely on a daily basis to protect the skin
- 20% of each of adolescents and adults believed that people who use sunscreen regularly when outdoors don't get enough Vitamin D from the sun
- 17% of adults believed that the ingredients in sunscreens are bad for your health if used regularly.



Tabbakh T & Dobbins S. 2016-17 National Sun Protection Survey. Unpublished report for Cancer Council Australia, Melbourne: Cancer Council Victoria.
Cancer Council Australia's National Sun Protection Survey. Unpublished report: A Volkov & S Dobbins (2014).



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Sunscreen Issues – Australian Context

Sunscreens and Coral Reefs

- There isn't an accepted Australian standard for what constitutes an "environmentally friendly" sunscreen. Evidence is light.
- Major peak environmental agencies are not pushing the issue
- Little evidence of impacting choice or sales.



Ingredients

No proposed bans of UV filters that are currently on the TGA register. Of all the media interest around sunscreen ingredients, the use of nanoparticles dominate

Current messaging

Sunscreens in Australia are safe to use. All sunscreen ingredients in Australia are approved by the TGA. The TGA regularly reviews the evidence and ensures that sunscreen ingredients are safe, effective and low risk.



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Aerosols Limitation



Report Commissioned by Cancer Council Victoria and the Australian Radiation Protection and Nuclear Safety Agency. Available at: https://www.arpsa.gov.au/sites/default/files/aerosol_sunscreen_report_final.pdf [Accessed 4 June 2021].

| Sunscreen Product ID | Spray Time per limb 5g for bottle (sec) | Spray Time per body 35g for bottle (sec) |
|----------------------|---|--|
| 1 | 15 | 107 |
| 2 | 10 | 70 |
| 3 | 19 | 130 |
| 4 | 12 | 86 |
| 5 | 17 | 118 |
| 6 | 16 | 112 |
| 9 | 24 | 169 |

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Summary

- There isn't enough consumer confidence in the product despite the clear evidence of benefit
- We should discourage aerosols and sprays as a mechanism for sunscreen delivery
- People are not applying enough to achieve the expected protection and therefore public health messaging efforts should focus on liberal application, rather than technical issues (quality & brand), chemicals (absorbers vs blockers), SPF 30 vs 50

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