

Skin cancer – time for national leadership to meet critical challenges ahead

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Skin cancer (melanoma and non-melanoma) is both the most common cancer in Australia and the most costly – yet for decades we have relied on health promotion successes of the past, and Governments remain complacent about making a sustained investment to reduce the burden of this largely entirely preventable cancer. At least two in three Australians will be diagnosed with skin cancer in their lifetime¹ and, with approximately one million skin cancers being treated annually, it costs the Australian health system an estimated \$1.7 billion annually to treat.² This is significantly more than any other cancer or disease group; skin cancer accounts for 12% of the total cancer-related health system expenditure, and about 1% of the total health system costs for all diseases.² These costs are projected to grow as the number of skin cancers diagnosed rises and new immunotherapies prove to be effective and come onto the market.

With such a significant burden to society and cost to the health system, how is it that in 2022, despite all we know about this common and nearly entirely preventable cancer, we are still advocating for investment and true health system reform? This special edition of *Public Health Research & Practice* explores the successes and learnings from the past, the importance of prevention and timely data capture, and the progress made in early detection.

Prevention – we know what to do and it is cost-effective

Australia has had many successes in public health. Our efforts in HIV, tobacco control and skin cancer prevention have all been world leading. As Walker et al.'s paper illustrates, Australia's leadership in skin cancer prevention has not resulted from a well-planned national policy or strategy,

instead it has been left to some state governments and cancer agencies to deliver.³ Australia's world-leading efforts to ban commercial sunbeds, for example, came about without federal intervention, instead it was left to each state or territory to implement laws to ban their use. Similarly Cancer Council's SunSmart schools program⁴, which has almost universal adoption in primary schools and early childhood centres nationwide, and has resulted in the provision of shade over a large number of public swimming pools for toddlers and community playgrounds, have come about from efforts at the state or territory level. This is despite the Australian Government having to pay the bulk of the healthcare costs associated with skin cancer treatment.

Since the paper by Walker et al.³ was published online early in December 2021, the Australian Government has committed to a \$20 million skin cancer campaign over 2 years.⁵ There is reason to celebrate this first nationally coordinated campaign in more than a decade, however it is unfortunate that funding is still short term. For this reason, in the absence of a broader national skin cancer strategy, long-term investment and robust population monitoring, we are unlikely to see a longer-term reduction in the very significant human and financial burden of skin cancer. The paper by [Gordon et al.](#) illustrates why the Australian Government should have a strong vested interest to prioritise prevention.⁶ Skin cancer prevention not only saves lives, but it also provides a significant return of \$2–4 for every dollar invested.^{7,8} Unlike many areas of public health, where we are still learning about what interventions are effective, our 40 years of effort as illustrated by Walker et al.³ provides a clear roadmap of what we need to do to reduce the very significant burden of skin cancer in Australia; we just now need the will and government investment to do it.

Research advances in early detection, treatment and workforce training

In addition to primary prevention strategies, early detection can further reduce the impacts of skin cancer on morbidity, mortality and costs of treatment, as these are strongly associated with stage of disease at diagnosis. Australians have high awareness about skin cancer and the importance of early detection, but several concerns about the current unstructured approaches to skin cancer early detection have been identified. [Janda et al.](#) discuss these concerns, current approaches and new opportunities for the early detection of skin cancer in Australia, including those related to new technologies and personal risk assessment.⁹ They demonstrate how Australian research programs continue to shape the future of skin cancer early detection internationally. [Jones et al.](#) share original research results from SunSmart's 2019 Dermoscopy for Victorian

General Practice Program, which successfully provided 130 predominantly regional GPs with access to skin cancer prevention and early detection training and equipment.¹⁰

The importance of current evidence

Identifying areas where information is lacking is important in order to improve efforts to prevent skin cancer, particularly in Australia and New Zealand where the disease burden and incidence is so high. Several papers in this issue of the journal describe the current evidence, and highlight important evidence gaps and specific opportunities related to skin cancer prevention and early detection. Firstly, reliable surveillance is needed to monitor and maximise the success of any interventions. [Olsen et al.](#) recommend that population-based cancer registries consider working towards statutory notification and routine reporting of keratinocyte cancer in Australia.¹ Currently, only the Tasmanian cancer registry records notifications of basal cell carcinoma and squamous cell carcinoma, but registries in other jurisdictions could follow their example given recent advances in technology that can support large-scale data abstraction and coding.¹¹ Secondly, [Verma et al.](#), in their review of sun exposure policy documents from Australia and New Zealand¹², emphasise the need for evidence-based, clear and consistent guidelines with regards to balancing the risks and benefits of sun exposure (including vitamin D production and non-vitamin D-related health benefits), particularly as they relate to different skin types. Finally, [Henderson et al.](#) highlight the challenges of current laboratory testing regimes for sunscreen in Australia (including the lack of concordance with real-world application), and the impact on consumer trust in the safety and efficacy of sunscreen as an important sun protection measure.¹³

Leading the way globally with a collaborative approach

Australia leads the world in its response to skin cancer, and one of our greatest strengths is the expertise and collaboration across sectors. Australian researchers, public health professionals, treating centres and physicians have been working together for decades and continue to work together to reduce the burden of this cancer, and the paper by [King et al.](#) presents a novel approach to cross-sector collaboration to embed shade in state built environment planning.¹⁴ Resulting from this long-term collaboration, Australia continues to play a global leadership role, with other countries looking to Australia for guidance on best-practice programs, campaigns and early detection methodologies. Notably, Cancer Council Victoria has been designated a World

Health Organization Collaborating Centre for UV Radiation since 2004.

Unlike efforts to reduce other health risk factors – like tobacco, alcohol or unhealthy food and drinks – skin cancer prevention faces minimal Australian industry opposition. The path to sustained investment is not challenged by industry but, seemingly, our own complacency. Skin cancer kills about 2500 Australians every year, is responsible for significant health system costs, and is also nearly entirely preventable. The broad and engaged skin cancer sector in Australia knows what needs to be done and is eager to work with governments to reduce this significant burden and to lead the way for the world. The recommendations from this edition include:

1. Prevention is more cost-effective than early detection or treatment and there is a need for sustained investment in evidence-based and evaluated behaviour change campaigns
2. Cancer registries should work towards accurate and real-time data capture for keratinocyte cancers
3. Shade plays a valuable role in healthy built environments, and state and territory governments must take the lead in working to integrate shade provision into the healthy built environment agenda
4. We need to recognise the importance of clear messaging to restore consumer confidence in sunscreen and sun protection
5. We need evaluation of structured approaches to early detection, including risk-based approaches and new technologies.

We know what needs to be done – now is the time to do it so that one day Australia is no longer considered the skin cancer capital of the world.

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Peer review and provenance

Internally peer reviewed, invited.

Competing interests

Cancer Council Queensland and Cancer Council Victoria are members of Cancer Council Australia. Cancer Council Australia derives income from the sale of sun protection products that is used to fund cancer research, prevention and support activities. Cancer Council Victoria receives funding from the Victorian Government to run the SunSmart Victoria (formerly Slip! Slop! Slap!) program, including the Dermoscopy for Victorian General Practice

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Author contributions

All authors contributed to the design, drafting, reviewing and editing of the manuscript.

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