



Ultraviolet radiation (UVR) protection Policy Statement

Skin cancer is a significant public health issue for Aotearoa New Zealand, but it is largely preventable by reducing excessive exposure to ultraviolet radiation. The Public Health Association supports UVR protection interventions in education settings, workplaces and other outdoor settings and urges central and local government to promote, fund and implement these.

Overview

In Aotearoa New Zealand (NZ), skin cancer is by far the most common cancer type ¹ and from it nearly 500 New Zealanders die annually. ^{2,3} Excessive exposure to ultraviolet radiation (UVR), whether from sunlight or from artificial sources, such as sunbeds, causes skin cancer. ⁴ NZ has the world's highest mortality rate for cutaneous malignant melanoma (melanoma), the most deadly of the skin cancers.⁵ Treating skin cancer places a considerable burden on the NZ health system with more than \$181 million annually in direct costs to the public health system which is projected to increase to \$295 million by 2025.⁶ The risk of developing skin cancer can be mitigated by minimising exposure to UVR, with more than 90% of skin cancers considered preventable by reducing excessive exposure to UVR throughout the life cycle.⁷

Increasing sun protective policies and practices could contribute to the priority population health objectives of the NZ Health Strategy of illness prevention ⁸ (we note this is due to be updated in 6 months) and the Cancer Prevention Report⁹. The NZ Skin Cancer Primary Prevention and Early Detection Strategy 2017 to 2022, identifies five pathways for reducing skin cancer incidence and impact: primary prevention; early detection; diagnosis and treatment; rehabilitation, support and palliative care; and research, evaluation and surveillance.¹⁰ Comprehensive sun protection policies and practices are not consistently implemented in schools, workplaces and outdoor recreational settings.

There has not been a public national media campaign on the primary prevention of skin cancer for more than 10 years. Although, there have been some social media targeted campaigns in recent years. The Health (Protection) Amendment Act restricts access to sunbeds to those aged 18 years or older, but the scientific evidence clearly shows that there is no safe level of sunbed use for individuals of any age ¹¹.

Prevention

Over 90% of skin cancers are considered preventable by following the SunSmart guidelines of:

1. Covering up with appropriate protective clothing
2. Using a broad brimmed hat or other suitably sun protective headwear that shades the face, ears and neck
3. Wearing sunglasses that meet the Australian/NZ standard (AS/NZS 1067.1:2016)
4. Slipping into shade
5. Whenever possible, rescheduling outdoor tasks to times outside the high UVR period around

solar noon

6. Before going outdoors, applying broad spectrum water-resistant of at least SPF30 sunscreen to areas of exposed skin and then reapplying at recommended intervals
7. Never using a sunbed¹¹.

Sun exposure and health issues for Māori and Pacific Peoples

In New Zealand, 96% of melanomas occur among Pākehā/Europeans.³ Melanoma is less common in Māori and Pacific people, accounting for less than 3% of diagnoses.³ The probable mechanism for this is that darker skin filters UVR, preventing it from reaching and damaging the deeper levels of the skin.¹² Despite being less common, melanomas in Māori tend to be significantly thicker, making them more difficult to treat and with a poorer prognosis.³ Māori are also more likely to present with more advanced melanoma, which may reflect barriers to detection such as lower awareness of melanoma due to low rates; melanoma being more difficult to detect in people with darker skin; and reduced access to health care.¹³

Treaty of Waitangi Implications

Māori as tangata whenua and Treaty partners have the right to the highest attainable standard of physical health and equitable access to services. The Government has legal and ethical obligations to uphold these rights¹⁴ in relation to melanoma prevention, detection, and treatment. Poorer outcomes for Māori and lack of access to surveillance and treatment services should be considered in Government decision making regarding skin cancer control.

Priorities for action

Government organisations

The imagery used in all government publications that show people outdoors should always use appropriate SunSmart imagery – e.g. appropriate sun protective hats or hard helmets with flaps rather than caps which do not provide adequate protection from UVR¹⁵, in particular, for the ears and neck. Otago University researchers have discovered that playgrounds in more socioeconomically deprived areas have less shade than those in less deprived areas. Environmental sun protection is particularly important in lower socioeconomic status (SES) areas, as families on lower incomes can face economic barriers to improving personal sun protection such as the costs associated with buying appropriate sun protection. The researchers concluded that providing effective shade in playgrounds would help reduce children's risk of sunburn, skin cancer, and heat stress, and increase play times, also supporting goals to be healthy active communities¹⁶.

Worksafe

Mitigation of sun exposure as an environmental hazard has been a requirement under the 1992 Health and Safety in Employment Act. Under the 1994 Occupational Safety and Health guidelines, protection from solar UVR was required. This Act has now been superseded by the Health and Safety at Work Act 2015. However, more than 20 years later, practices are not being routinely monitored. The addition of UVR to workplace hazard registers should be required and enforced.

The Ministry of Health

The Ministry of Health should commit sufficient funding for the effective promotion of SunSmart activities by the agencies they allocate to work in this area. We note it is more than ten years since there was a national summer media campaign reminding the public to be SunSmart. Te Whatu Ora National Public Health Service should include sun protection strategies as a priority area in their strategic plans. Despite the substantial numbers of skin cancers diagnosed and their potential preventability, the funding to agencies for SunSmart activities has been progressively reduced to 20% of what it was 20 years ago. We note that

Te Whatu Ora is at this point in time still in an area of flux as they adapt to the new Public Health Structure. Under the Resource Management Act 1991 (RMA) local government is required to consider the effects of a changing climate on communities. It is also required to incorporate climate change into existing frameworks, plans, projects and standard decision-making procedures.

The importance of trees needs to be recognised, in providing shade, reducing the impact of climate change, as well as the physical and mental health benefits of green spaces in our community.

The Ministry of Education

The Ministry of Education should follow the World Health Organization recommendation for best practice sun protection in schools. This is a comprehensive approach that includes policy and practices, the physical environment, teaching as part of the curriculum, and the education of parents and caregivers. Government should commit adequate funding to provide appropriate warm shade in all schools.

Educational facilities (early childhood centres, primary and secondary schools)

Childhood and adolescence are important exposure periods and also times for developing lifetime sun protective practices. All schools and early childhood centres should implement a comprehensive sun protection policy which encompasses the SunSmart guidelines and signals the intent of the Board of Trustees that the school will provide an environment where staff and students can be safe in the sun. Schools with a sun-protective policy report better sun protection practices than those without such a policy.¹⁷

Workplaces

Outdoor workers have a significantly increased risk of some types of skin cancers, particularly squamous cell carcinomas.¹⁸ As non-melanoma skin cancers are not currently routinely recorded in the NZ Cancer Registry it is difficult to measure the size of the problem, but in Australia, where there are comparable UVR levels to those experienced in NZ, \$38.4 million in compensation payments has been paid out to 1,360 workers with occupational sun-related disease over a 10 year period.¹⁹ Skin cancers caused by high occupational UVR exposure should be classified as an occupational disease and exposure to UVR added to workplace hazard registers.²⁰

It is important that workplaces provide policy and practical support for sun protection. Perceived workplace support²¹, protective equipment provision and sun-protective workplace culture²² are significantly positively associated with workers' sun protective practices. Based on a systematic review by an international team, the US Community Services Task Force *'recommends interventions in outdoor occupational settings to prevent skin cancer based on strong evidence of effectiveness in increasing outdoor workers' ultraviolet protective behaviours'*.²³

Outdoor sporting facilities and organisations

Participation in outdoor sport and other outdoor recreational activities may lead to high UVR exposure and, consequently, a greater risk of developing skin cancer. This may be particularly true for individuals who participate in these activities during the summer months when UVR can reach 'extreme' levels according to WHO criteria. Many summer sports (e.g. cricket, surf lifesaving) are conducted over extended periods of time which often encompass the peak UVR hours around solar noon. Coaches, officials and spectators may also be at increased risk of excessive UVR exposure. Although UVR levels during the summer months are higher than winter months, there are risks of excessive UVR exposure in some winter sports or recreational activities (such as skiing or snowboarding) where the sport is either conducted at high altitudes or where the surfaces are highly reflective. Sports organisations should include sun protective policies in their health and safety documentation which stipulate that clothing worn and sporting event practices follow SunSmart guidelines. Based on a systematic review by an international team, the US Community Services Task Force

'recommends interventions in outdoor recreational settings to prevent skin cancer based on strong evidence of effectiveness in increasing ultraviolet protective behaviours'.²⁴

PHA actions to support this policy

The Public Health Association, including its branches, will:

- Keep members informed of relevant research, key policy/legislative developments and consultations
- Influence local and central government policy-making through submissions and participation in policy development forums
- Strengthen relationships with researchers, aligned advocacy groups, and policy officials and decision-makers at local, regional and national levels.

Special Interest Group or Policy Sponsor	Bronwen McNoe & Bridget Forsyth
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