Received: 28 December 2020 | Revised: 9 September 2021 | Accepted: 20 September 2021

DOI: 10.1002/hpja.545

LONG RESEARCH ARTICLE

Generating political priority for skin cancer primary prevention: A case study from Aotearoa New Zealand

Ryan Gage[1] | William Leung[1] | Marcus Gurtner[1] | Anthony I. Reeder[2] | Bronwen M. McNoe[2] | Louise Signal[1]

[1]Department of Public Health, University of Otago, Wellington, New Zealand

[2]Social & Behavioural Research Unit, Department of Preventive & Social Medicine, University of Otago, Dunedin, New Zealand

Correspondence
Ryan Gage, Department of Public Health, University of Otago, Wellington, New Zealand.
Email: ryan.gage@otago.ac.nz

Funding information
This research was funded by the University of Otago and the Cancer Society of New Zealand Inc

Abstract

Issues addressed: Skin cancer is highly prevalent but preventable, yet little research has been done on the challenges in generating political priority for skin cancer prevention. This qualitative study aimed to identify the political challenges to, facilitators of, and strategies to strengthen skin cancer prevention. The focus was on the case of Aotearoa New Zealand (NZ): a country with high skin cancer rates, but limited investment in primary prevention.

Methods: Data sources included 18 national key informant interviews and documentary analysis. Data were analysed inductively for emerging themes and framed using a conceptual framework of political priority.

Results: Challenges to advocates for skin cancer primary prevention include limited resources and competing priorities. Political-level challenges include a lack of quick results compared with other initiatives vying for political attention, lack of negative externalities and, in NZ, misalignment with health system priorities. Challenges in the evidence base include the perceived conflict of sun protection with Vitamin D and physical activity, the lack of data on the financial burden of skin cancer and relatively low temperatures in NZ. Facilitators include strong policy community cohesion and issue framing, and weak opposition. Promising strategies to strengthen skin cancer prevention in NZ could include network building, using framing that resonates with policy makers and addressing key knowledge gaps in NZ, such as the financial burden of skin cancer.

Conclusion: Advocacy for skin cancer prevention faces challenges due to advocates' limited resources, political challenges such as lack of quick results and gaps in evidence. Nonetheless, the initiative encounters little opposition and can be framed in ways that resonate with policy makers.

So what?: Skin cancer is highly preventable, but advocates for prevention initiatives have struggled to gain political traction. This study identifies several strategies that could help raise the political profile for skin cancer prevention.

KEYWORDS

skin cancer, sun safety, health policy, political priority, primary prevention, advocacy

 © 2021 Australian Health Promotion Association

1 | INTRODUCTION

Since the 1980s, several jurisdictions have implemented skin cancer prevention programs to reduce the burden of skin cancer. Common elements have included mass media campaigns aiming to promote SunSafe behaviour, school sun safety programs, and environmental interventions, such as shade provision. To date, evaluation of skin cancer prevention programs has shown favourable outcomes for behaviour change.[1,2] Evidence from economic evaluations also suggest that skin cancer prevention can avert numerous cases of skin cancer and save money in health care costs.[3-8] However, despite this evidence, reports from several countries have suggested that the issue is not being taken seriously[9]; that upscaling is needed[9-13]; or that investment has faltered in recent years.[14]

Previous research has identified several factors that may explain a lack of policy action in this arena. First is inconsistency in sun protection messaging. A comparison of sun protection recommendations from four national organisations in the United States found considerable variation in the types of messages that were communicated.[9] Second is the lack of evidence in some areas, such as the effectiveness of shade[9] and the limited epidemiological data on keratinocytic carcinomas.[15] Although less severe than cutaneous malignant melanoma (CMM), keratinocytic carcinomas, like CMM, are mostly caused by ultraviolet radiation (UVR).[16] Exclusion of these cancers may therefore reduce the magnitude of the problem as perceived by policy-makers. Third is perceived conflict of sun protection with vitamin D synthesis and physical activity,[17,18] which may conflict with other public health objectives.

When considering the political prioritisation of skin cancer, a limitation of these studies is that they largely relate to barriers in the evidence base. While evidence has an important role, it is just one of many potential influences in the “complex” and “messy” policy-making process.[19] A framework proposed by Shiffman and Smith (2007), hereafter referred to as the Political Priority Framework, identifies four categories to help explain the success and failure of health initiatives in policy agendas.[20] These are: the power of actors involved with the initiative, the ideas they use to portray the issue, the political and economic environments in which actors operate, and the characteristics of the issue itself.[20]

The first component, actor power, concerns the individuals and organisations involved with the issue. Actors are more likely to acquire political support if they are well-resourced, coordinated and exhibit effective leadership.[21,22] Expanding the scope of actors involved has been identified as an important strategy for advocates.[20,23,24] The second component, ideas, concerns the ways in which actors understand and frame the issue. Frames that resonate internally ensure cohesion among actors, whilst frames that resonate externally can broaden support for the initiative.[20] The third component, political and economic environments, concern the context of policy-making. An important aspect is policy windows, defined as moments in time when conditions align favourably for an issue, giving advocates the opportunity to reach policy-makers.[20] The fourth component, issue characteristics, refer to the nature of the issue itself. Issues are more likely to attract political priority if they are easily measured, cause substantial harm and have simple, cost-effective solutions.[20]

Aotearoa New Zealand (NZ) is a useful country in which to explore the political prioritisation of skin cancer prevention. NZ has one of the highest incidence rates of CMM in the world, but little investment in primary prevention.[25] National mass-media campaigns promoting sun protection behaviour were common between 1990 and 2007, but rare in the years since.[14] While there seems to be high knowledge of the sun protection message in NZ,[26] recent cross-sectional surveys have shown poor prevalence of sun protective behaviour in both adults and children.[26-30] Tanning beds are available for adult use in NZ, in contrast to a complete ban in Australia.[31] Sunscreen products sold in NZ are classified as cosmetics not therapeutic products, with many failing to meet specified sun protection factor claims.[32] There is no legislative requirement for local councils to develop policies around sun protection or shade provision.[33] Outdoor recreation spaces in NZ have minimal shade available for public use[28,34,35]; a nationwide survey found that 85% of playground areas in NZ had no shading,[34] compared with around 16%–54% of playground areas in Sydney, Australia.[36]

In this study, the Political Priority Framework is used to investigate the challenges to, facilitators of, and strategies to strengthen skin cancer primary prevention in NZ.

2 | METHODS

2.1 | Conceptual framework and scope

Similar to previous studies using the Political Priority Framework,[20,37,38] data were derived from a combination of key informant interviews and documentary analysis. Key informant interviews are valuable for gathering perspectives of the range of people involved in policy processes, and can help provide access to information and institutional knowledge not available elsewhere.[39] Documentary analysis is useful for understanding policy content across time, triangulating with interviews and understanding how the issue is framed formally by actors.[40]

2.2 | Key informant interviews

Interviews were conducted with 18 purposefully selected participants in 2018/19. Initial participants were selected based on their expertise in skin cancer prevention or policy-making. As few people work in the area of skin cancer prevention in NZ, most experts in this space were known to the research team and were recruited based on existing networks. Other participants were identified using web searches and through a snowball technique, in which participants were asked to nominate others.[41]

Of the 18 participants recruited, seven were considered to have expertise in skin cancer prevention, having published relevant

scientific articles and/or been involved in implementing, or advocating for, skin cancer prevention in NZ. Four of these were academics who worked in research institutions. The remaining three worked in non-government organisations (NGOs) focused on cancer prevention. Those without expertise in skin cancer prevention (n = 10) either had expertise in policy-making or worked in leadership roles in sectors relevant to skin cancer prevention, such as the education sector. Six were public servants, three worked for Crown entitites and two were politicians.

Interviews followed an iterative approach, in which the content of the discussion was adapted over the course of the interview. Main lines of questioning related to the challenges to, facilitators of, and strategies to strengthen skin cancer prevention. Interviews took 30-100 minutes to complete and were recorded with consent and transcribed. Ethical approval was obtained from the University of Otago Ethics Committee (Health) (D18/022). As per the ethical agreement, interviewees' names and organisations were kept anonymous in the results, but a general description of their role is reported when quoting them.

2.3 | Documentary analysis

Documentary analyses were performed to identify how actors have framed the issue of skin cancer. To ensure the capture of current thinking, only documents published from 2010 to 2020 were included. Media releases and news articles were excluded from this analysis, given the availability of a recent analysis of sun-safety media coverage over springtime in NZ.[42] Documents included publicly available reports (n = 26), position statements (n = 4), information sheets (n = 19), government submissions/consultation documents (n = 11) and webpages (n = 4) (see Supplementary Table 1 for details).

2.4 | Thematic analysis

Thematic analysis of interview transcripts and key documents was undertaken to identify the challenges and facilitators of skin cancer prevention and potential strategies for strengthening it. Each document and transcript was reviewed independently by two researchers. Important themes were decided based on the number of respondents/documents identifying each theme and relative importance attached to each theme. Key themes were subsequently grouped according to the four components of the Political Priority Framework.[20] The final interpretation of themes, including their classification in the conceptual framework, was decided through discussion among authors and cross-checked with several key informants.

3 | RESULTS

While less than half were considered experts in skin cancer prevention, thematic analysis revealed a good understanding of the risk of skin cancer and its lack of prioritisation in NZ. Interviewees identified several key challenges and facilitators to skin cancer prevention (see Table 1 for key themes and Figure 1 for a summary of key strategies). Themes were relatively consistent across interviewees, with no noticeable difference between experts in skin cancer prevention and non-experts. Exceptions included specialised sector knowledge, which, when applicable, has been differentiated from the general themes in the text below.

3.1 | Actor power

Limited capacity and resources among skin cancer prevention actors was identified as a key challenge.

> We're not spending money on it. We have not had a social marketing campaign on SunSmart for 15 years. TV is changing, but even so… there's nothing out there really. A drop in the bucket compared to obesity prevention (Health advocate – NGO).

Competing priorities were another key challenge, particularly since many actors worked in health organisations where skin cancer was just one of several policy foci.

> The problem is there is so much going on in the cancer space. You can't harp on to the Minister of Health for thirty things. You have to prioritise (Health advocate - NGO).

For organisations not specifically involved in skin cancer prevention, competing priorities was also seen as a challenge.

> [Local councils] have many other responsibilities. To stand a chance, you need a good case, with an economic argument because of the budget rounds (Public servant – Local Government).

One participant, in reference to sun safety in schools, said,

> You've got poverty and learning the tough subjects. Sun safety can seem like icing on the cake for schools. Problem is it takes ages to see a difference. Give a hat today, and you won't see a difference in melanoma for a while. Give a kid shoes today…. (Health advocate – NGO).

Similarly, an interviewee from the Sport and Recreation sector, said,

> What you find is that there are multiple agencies shouting for attention. For us it's drowning prevention, road accidents, home accidents, domestic violence and sun

TABLE 1 Challenges and facilitators to generating political priority for skin cancer prevention in NZ

Component	Definition*	Challenges	Facilitators
Actor power	The strength of actors (individuals and organisations) concerned with the issue. Relates to policy community cohesion, leadership, guiding institutions and civil society mobilisation.	• Limited resources for advocates • Competing priorities for advocacy and implementation • Lack of top-down leadership • Limited interest from grassroots organisations in civil society	• Strong policy community cohesion
Ideas	The ways in which those involved with the issue understand and portray it. Relates to internal and external framing.	• Difficulty communicating the need for policy intervention, given thinking around personal responsibility	• Consistent policy community framing • Collective responsibility framing • Political appeal of frames communicating personal stories, the financial burden of skin cancer, NZ's outlier status in terms of skin cancer risk and the need to protect the health of children
Political contexts	The environments in which actors operate. Relates to governance structures, economic environments and policy windows.	• Benefits of prevention well outside short political timeframes • No negative externalities • Limited political appeal of prevention relative to disease treatment • Low rates among Māori thus unlikely to reduce health inequalities which Māori endure	• Relative lack of opposition compared with advocacy to reduce harm from tobacco, alcohol and junk food • Harmony with manufacturers of sunscreen, sun protective clothing and shade
Issue characteristics	Features of the problem. Relates to the availability of credible indicators of the disease and effective interventions.	• Limited data on the financial burden of skin cancer and the effectiveness and cost-effectiveness of intervention in NZ • Perceived conflict with vitamin D accumulation from the sun and outdoor physical activity • Confusion distinguishing between UVR and temperature • Relatively low temperatures in NZ • Normalisation of excessive UVR exposure and cultural tanning norms	• Strong evidence about the cause of skin cancer and how to prevent it

*Source [37].

> protection. It just gets to be white noise (Public servant – Sport and Recreation).

Many interviewees identified a lack of top-down leadership as a key barrier to skin cancer prevention, both in terms of implementation and advocacy.

> The main problem is a lack of identifying it as a public health issue of significance. In the United States, the Surgeon General identified skin cancer as a public health problem. That sent signals to other agencies and helped coordination. We lack that coordinated response in NZ (Academic).

Some suggested that improved top-down guidance would be valuable.

> If there were guidelines about best practice the sport community would lap it up. We need to make sure the advice we give is the best advice (Public servant – Sport and Recreation).

> There's a potential audience for local authorities, but understanding by council candidates that we have a role, that could be useful (Councillor).

Some experts in skin cancer prevention, in reference to SunSmart campaigns in Australia, noted the importance of grassroots advocates and the lack of such action in NZ.

> In Australia, they had an individual that was young and articulate who fought very hard for the last few years of her life. It is sad that you have to wait until something

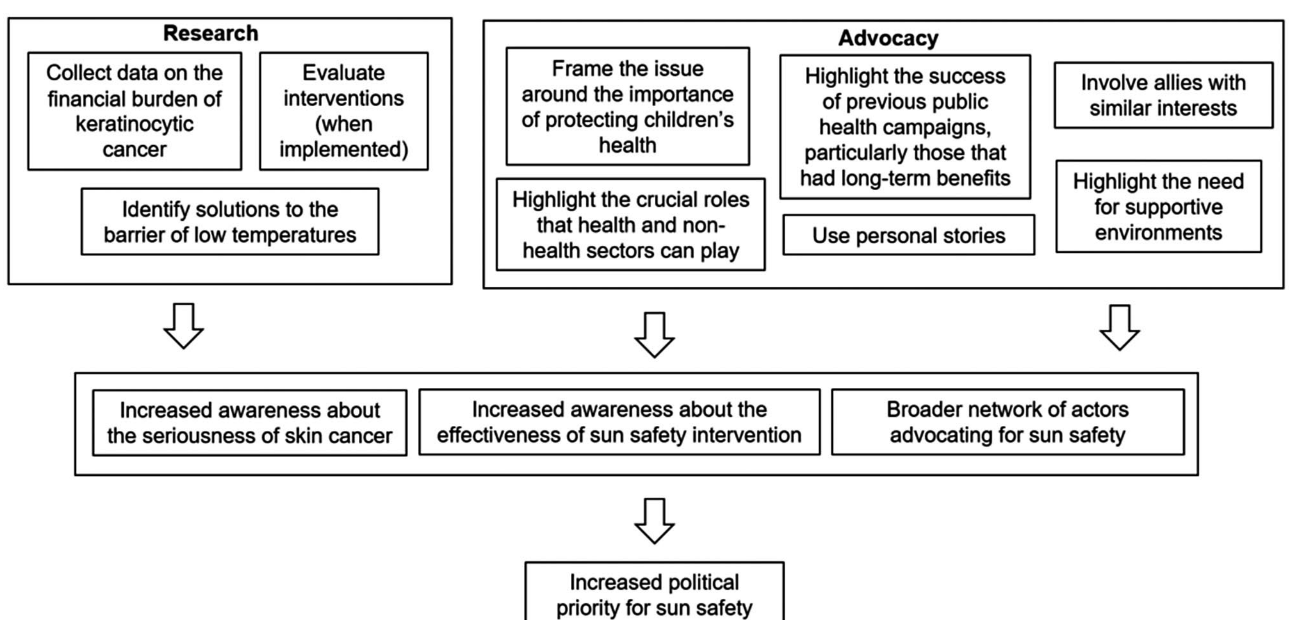

FIGURE 1 A diagram of key strategies for advocates and researchers that may help generate political priority for skin cancer primary prevention

> like that, but sadly the reality is that that helps put it on the policy agenda (Health advocate – NGO).

Several thought there was strong cohesion among actors concerned with the issue. As noted by one interviewee,

> We know what causes it. We know what to do about it. We have all the pieces. We just need to make environments that support it (Health advocate – NGO).

However, despite this cohesion, connections were perceived to be weak with sectors who could play a larger role in skin cancer prevention. As such, many suggested the importance of building strong networks.

> It's a two way thing. If it's all government down it will stop. If there is no support from the wider community it will stop. People need to speak out. We need support from community voices (Health advocate – NGO).

Improved leadership, particularly from government, was identified as crucial for forming broad networks.

> We need a national coordinating committee to focus it and recognise that it is a multi-agency issue and that everybody has got to take some responsibility (Health advocate – NGO).

> It needs a coordinated and concerted national effort from all bodies that are interested (Health advocate – NGO).

3.2 | Ideas (framing of skin cancer)

Actors have framed the issue of skin cancer prevention in largely consistent ways. Skin cancer has been described as a public health problem. Advocates have emphasised the importance of collective responsibility in order to build supportive environments to make sun protection behaviour easy. However, they also identify the importance of individual responsibility in sun protection.

While interviewees supported ideas of collective responsibility, they identified that counter framing around individual responsibility was a key challenge to this framing. As noted by one interviewee,

> There is very little government stewardship in this area. It is difficult to communicate the need for intervention because the government has focused so much on personal responsibility (Health advocate – NGO).

In terms of strengthening skin cancer prevention, many interviewees suggested the need to form strong arguments in favour of collective responsibility. To achieve this, many noted the importance of economic arguments.

> It is an easy fix. It's not a hugely expensive thing. It's asking people to be proactive and use common sense. This is not a multi-billion dollar problem, except when people don't do it (Politician).

Some noted the importance of personal stories.

> Personal stories may have the biggest effect. People don't want to hear the hard facts, and policy makers don't want to tell it (Academic).

> We get bombarded with health advice. Don't smoke, don't eat sugar, don't do this. But personalising it is good and more relatable (Politician).

Others suggested that framing skin cancer as a uniquely NZ problem can be effective.

> NZ is an outlier. People don't want to be an outlier on the bad side of the spectrum (Public servant – Health advisor).

Some thought that framing the issue around the need to protect the health of children can resonate well with policy-makers.

> A lot of damage happens to children, when they're too young to be making smart skin decisions themselves. That's something the government should be taking charge of because it's not their fault if their parents aren't being responsible (Health advocate – NGO).

3.3 | Political contexts

Interviewees thought the political and economic environment had both challenges and facilitators for skin cancer prevention. Largely, these environments were perceived as unsupportive, with the combination of several factors creating difficult conditions to gain political traction.

Many participants noted that politics generally favours issues for which policy can have an immediate benefit. In this regard, skin cancer prevention was perceived to be at a disadvantage because of the considerable delay between harmful UVR exposure and the onset of skin cancer.

> If parks and recreational facilities don't provide toilets and places to wash hands it would be considered a health hazard. But if they don't provide shade, it's not. The problem is that it is not an immediate issue (Academic).

The relative lack of visible consequences was also seen as a barrier.

> It is less in your face than tobacco smoke. Smoking is visible. We see the damage. We smell it (Politician).

> Others pointed out the lack of externalities associated with skin cancer prevention. Alcohol affects others through drink driving and other harms… Host responsibility around alcohol does not translate to UV. [Some of the harms from alcohol] are at the time of consumption. Skin cancer is after and doesn't happen to everybody (Local councillor).

Several interviewees identified that disease treatment had more political appeal than prevention.

> We have a health system that is geared towards treatment services. We need to broaden this out so that wellbeing is not just a part of treatment services but also prevention (Health advocate – NGO).

In terms of moving past these challenges, some stressed the importance of highlighting existing policies in other areas that have addressed long term harms, such as tobacco control. One interviewee, in contrasting exposure to UVR to asbestos, said,

> Chronic exposure to UVR is not any different to exposure to asbestos resulting in asbestosis or mesothelioma. In both there is a considerable time lag between exposure and the subsequent disease development and in both the evidence is extremely clear on the causal pathway between exposure and disease (Academic).

Another political barrier was the relatively low incidence of skin cancer among Māori.

> We've got significant issues in cancer in our indigenous population in areas outside of skin cancer. We know of skin cancer's importance, but there has to be some shuffling down to be realistic (Health advocate – NGO).

However, some participants suggested potential for health system savings that could be redistributed to other areas.

> Most people treated for skin cancer are non-Māori. So, the money is spent on treating cancers that could be prevented. That money could have gone to the health system to alleviate the inequitable distribution of diseases in other areas (Academic).

A potential facilitator in political environments was the relative lack of opposition to skin cancer prevention. Only the tanning bed industry was identified as a direct opponent, and only in the context of tanning bed regulations. In contrast, skin cancer prevention was seen to harmonise with some corporate interests, such as manufacturers of shade, sun protective clothing and sunscreen. Many saw this as an opportunity for attracting alliances, although some suggested that such partnerships could have some drawbacks.

> There is potential for partnerships with [the sunscreen industry]. However, the public might say 'they just want to

> sell sunscreen'. There are risks there, but they can hopefully be appropriately managed. I think anything would be better than nothing, but there would still be that perceived conflict of interest (Public servant – health advisor).

While most interviewees perceived the political environment in NZ to be unfavourable for skin cancer prevention policy, several opportunities were identified that may assist in creating policy windows of political action. An example was the establishment of the Te Aho o te Kahu Cancer Control Agency in 2019,[43] which was seen as having the potential to offer a powerful voice given the limited capacity of actors in this arena.

Many suggested the need to be ready for any policy windows that surface.

> We have to keep pushing it from the bottom and to try and move it up. There are certain times when you can get all the ducks lined up and you can make change, but you have be ready for that moment (Health advocate - NGO).

Some participants suggested that policy windows could arise if high-profile, charismatic, or vocal individuals are diagnosed with skin cancer.

> It is a bit morbid, but sometimes if celebrities are diagnosed with an illness it can present opportunities for policy change. For example did you know that Bob Marley died of melanoma? (Health advocate - NGO).

3.4 | Issue characteristics

While some interviewees thought the evidence for skin cancer prevention was not straightforward, most thought that enough was known to warrant upscaling skin cancer prevention in NZ. They noted the well-established link between UVR and skin cancer, NZ's high skin cancer rates and the evidence of effective intervention.

However, several identified the need to collect more data on the economic burden of skin cancer in NZ, particularly the cost of keratinocytic carcinomas which are generally not registered in NZ.

> Once the answer is known about how much it costs, then someone might point the finger and say 'thou shalt therefore do something' but at the minute they [politicians] can plead ignorance and say 'we don't know how much it's costing' and bury their head in the sand. (Academic).

Many participants noted that, while evidence about how to prevent skin cancer is straightforward, some aspects of the evidence can confuse the public and policy makers.

> A complicated thing is the level of vitamin D: How much is needed to be helpful? We want to protect people from the sun. But we also want people to be active, and to get enough vitamin D (Health advocate – NGO).

The fact that skin cancer prevention has long-term, rather than short-term, benefits was also seen as a challenge. With respect to shade development, two interviewees said,

> [Skin cancer prevention advocates] want trees, but budget constraints means they are limited on the size of trees they can get. The reality is they're planting saplings which are going to take years to turn into shade (Public servant – Sport and recreation).

> The problem with shade is establishing a link between providing shade and preventing skin cancer because the gap in time is so big. Measuring the difference that shade has made is hard to do (Academic).

Difficulty understanding UVR risk levels was also seen as a challenge. Some noted that high UVR levels in NZ, despite relatively low temperatures, can be particularly challenging.

> UV levels are strong here, but it is not related to heat. This is a tricky thing to explain and understand (Health advocate – NGO).

Some interviewees thought that skin cancer prevention can conflict with health promotion guidance for outdoor physical activity. In reference to sun protection guidance in schools, one interview said,

> One of the criteria for accreditation in the SunSmart Schools program is to minimise time outdoors when UVI is above 3, which is frequently lunchtime, whereas physical activity guidelines wants those children outdoors running around (Academic).

Most interviewees, regardless of expertise and sector, identified the unalarming nature of skin cancer and normalisation of tanning behaviour as barriers. Many related this to the considerable latent period between UVR damage and skin cancer development.

> I think a lot of people think if you get it, it can just be cut away. They don't realise just how nasty it can get. You can die and it is a very nasty way to die (Academic).

> It is simple and logical but that doesn't mean that people take it on board. They know the messaging. They've seen the issues. Does that stop them going out into the sun? No. (Public servant – Sport and recreation).

4 | DISCUSSION

The findings show that actors concerned with skin cancer prevention in NZ have limited resources and often work in organisations where the advancement of skin cancer prevention is just one of many policy foci. A potential facilitator was strong cohesion about what the problem was perceived to be and how it should be framed, including as a collective responsibility. The issue also faces relatively little opposition. However, despite the advantage of having consistent, uncontested messaging, the issue faces substantial challenges in the political and economic environment. These include that the benefits of prevention are well outside short political timeframes, lack of negative externalities and its low priority on health policy agendas. Factors relating to the evidence base also present challenges, including limited data on the burden of keratinocytic carcinoma and perceived conflict between Vitamin D and physical activity. Overcoming these challenges will not be easy, but, as noted by interviewees, could be improved by building wider networks, utilising frames that have resonance with policy-makers and identifying the health and economic burden of skin cancer.

The strategy of building supportive networks is consistent with previous policy research on other health initiatives.[23] Given that actors involved with skin cancer prevention have limited resources, building a wider network of actors may be particularly important for pooling resources and sharing responsibility for implementation. An important finding was that limited knowledge of skin cancer prevention was rarely identified as a barrier to involvement in this space. Stronger barriers appeared to be competing priorities, lack of funding and limited top-down guidance with respect to what role organisations could play. In NZ, published guidance for some sectors, such as local councils, may assist. However, given that health was not seen as a priority in many of these sectors, a stronger commitment of resources may be needed to promote involvement. In the absence of more funding, liaising with sun protection actors may still assist in identifying interventions with low or minimal cost.[33] An example is local council sun protection policies, some of which have been developed at low cost and without big workload implications.[44]

When considering network building, some potential allies could be groups who profit from sun protection behaviour, such as manufacturers of shade, sunscreen and sun-protective clothing. However, as noted by interviewees, there may be drawbacks with this approach if the public conceive it as a conflict of interest. In the context of corporate sponsorship in the Australian SunSmart program, Montague et al reported that commercial sponsorship may represent a 'double edged sword', offering access to resources on the one hand but potential message dilution on the other.[45] When considering whether to accept sponsorship funding, the PERIL decision making framework may serve as a useful guide.[46] The PERIL framework outlines several key criteria to assess risk, including the purpose of the sponsor, the extent of the funding and the degree of harm associated with the sponsor's products. In applying this framework, the authors of this study suggest that minimal risk is associated with sponsorship from these industries, given their purpose to promote the consumption of sun protection products seems to align with public health interests. Exceptions to this may be manufacturers of products that do not meet stated SPF factors.[32]

Another relevant ally, given the cost barriers of shade provision, are environmental groups concerned with the planting of trees. In NZ, several groups from both the government and non-government sectors have interests in planting trees across the country, with aims to increase native flora, mitigate climate change and improve environments.[47-49] Such partnerships could be symbiotic if directed towards outdoor recreational spaces frequented by the public and involve the planting of trees that sufficiently block UVR.

The consistent framing and strong policy cohesion among actors contrasts with previous research from the United States, in which a review of messages promoted by national authorities found several differences in sun protection guidance.[9] In NZ, strong cohesion might be explained by the relatively small number of actors involved in this space, which likely facilitates coordination. In NZ, political and community support for collective responsibility framing may be stronger since the COVID-19 pandemic. NZ's "Team of Five Million" New Zealanders has taken collective responsibility for eliminating the virus with considerable success. Certainly, knowledge of the value of public health approaches has significantly increased in NZ.[50]

More generally, strong cohesion may be explained by lack of strong opposition to skin cancer prevention. While indifference to skin cancer risk was a key barrier, outright opposition in policy-making was rarely perceived. This contrasts to some other public health initiatives, such as regulation of tobacco, junk food and alcohol, where industry involvement in shaping political contexts and informing public perceptions has meant strong opposition to public health action in the policy community.[38,51] Although the tanning bed industry has opposed tanning bed regulation in NZ,[52] it is a relatively small compared with industries such as tobacco and is chiefly concerned with tanning bed regulation.

Many interviewees identified the long delay in benefits from prevention as a key barrier, which is consistent with challenges to public health programs more broadly.[53] In terms of addressing this barrier, interviewees suggested highlighting the success of previous public health policy. In NZ, a key example is the comprehensive regulation of tobacco,[14] for which the public health consequences, like UVR exposure, are not immediate. However, the lack of negative externalities associated with UVR exposure – a core rationale for government involvement in health and a key barrier found in this study – may limit this comparison.[54] Given weak collective responsibility for skin cancer prevention in NZ, a more suitable contrast may be to asbestos, to which exposure is associated with an increased risk of lung cancer.[55] Like asbestos, UVR is recognised as a serious occupational health risk in NZ. However, unlike asbestos, interviewees in this study suggested that harmful exposure to UVR in outdoor workers was not taken seriously in NZ. As the NZ Accident Compensation Corporation (ACC) scheme pays for treatment costs associated with severe sunburn and other chronic exposures,[56] some interviewees identified this as a key facilitator

to strengthen prevention. More research on this line of thinking would be useful to identify the number of cases eligible for ACC funding, and the potential cost savings to the government if these cases were prevented.

An interesting finding of particular relevance to NZ health policy was the challenge of low skin cancer incidence among Māori. In NZ, Māori experience substantial health inequalities compared with non-Māori, including a 7-year gap in life expectancy.[57] This is a breach of the principles of the Treaty of Waitangi, NZs founding document. In recent decades there has been a stronger focus on eliminating health inequalities which Māori endure. As a result of its low incidence among Māori, skin cancer, according to some informants, may not have been prioritised as the benefits would disproportionately benefit non-Māori. However, interviewees in this study supported skin cancer prevention given that health system savings from prevention could be redistributed to reduce inequalities in other areas. Further, there is no known safe level of exposure to UVR and evidence of poorer prognosis of melanoma among Māori (despite lower rates).[58]

Many interviewees thought that prevention had not kept pace with the evidence. This is a common finding in research on evidence-based policy and emphasises the various other influences in policy making.[59] However, while evidence alone may not be sufficient to influence policy-making, having up-to-date evidence can be a crucial tool for advocates when policy windows surface. In this respect, interviewees saw value in filling a number of research gaps in NZ. These included identifying the cost burden of keratinocytic carcinomas and establishing the effectiveness and cost-effectiveness of skin cancer prevention interventions. An interesting challenge raised by interviewees was the relatively low temperature in NZ, which aligns with previous research showing that shade in many areas of the country is too cool for comfort.[60] More research on the implications of temperature for shade development and other skin cancer prevention interventions would be valuable.

While the perceived conflict between sun protection and vitamin D synthesis was identified as a key barrier, it was not as prominent as expected by the authors of this study. Moreover, in terms of promoting political priority, no interviewees identified the need to modify the framing of the issue with respect to this barrier. This may be explained by the development of a consensus statement on vitamin D and sun exposure in 2012, which provides a set of recommendations on sun exposure based on the NZ context.[61] This document was the result of collaboration among key actors in this arena, including the Ministry of Health, the Cancer Society of NZ, ACC and academics. Having such a document likely facilitates consistent messaging and reassures other parties of the expert consensus. Consensus documents could prove useful in other jurisdictions.

An important theme raised in this study was that enough was known to warrant upscaling skin cancer prevention. This view was shared by both experts in skin cancer preventionand non-experts and aligns with previous calls for action in many jurisdictions. While important gaps in knowledge were identified, NZ advocates in this arena should be encouraged by the fact that, on balance, the causes of skin cancer and the need for prevention seem well understood. Although filling gaps in knowledge research would strengthen the case as perceived by policy-makers, this should not stand in the way of immediate efforts to promote what has been shown to be an effective, and cost saving, set of interventions.

4.1 | Study strengths and limitations

A key strength of this study was the focus on the political-level challenges to sun safety policy. Most studies have focused on the determinants of individual sun-protective behaviour,[62] offering little insight into the lack of policy focus on skin cancer prevention. The case study approach enabled an in-depth analysis. While some themes were specific to NZ, the findings are likely of value to other jurisdictions wanting to progress work in this arena.

The study has some limitations. The use of key informant interviews, while effective for gathering rich insights, may privilege some viewpoints and miss others.[39] It is possible that respondents in this study, nearly half of whom had expertise in skin cancer prevention, had vested interests in seeing skin cancer prevention succeed, which may have biased their responses. The small number of skin cancer experts in NZ may also have affected responses if, for example, their honest response would involve criticising colleagues. However, given the frankness of responses and seemingly unobtrusive focus on the broad factors underpinning political priority, it appears this limitation is minimal.

The inclusion of a small number of respondents from sport, recreation and education sectors was unlikely to reflect the views of all those within these sectors. While the purposive sampling focused on senior people in these sectors, a full understanding of how these sectors perceive skin cancer would require a more detailed investigation. Interviews were also conducted before the events of COVID-19, which may have changed the political landscape related to skin cancer prevention. While it is difficult to speculate on how this may have impacted skin cancer prevention, it is true that dealing with COVID-19 takes up considerable political bandwidth.

5 | CONCLUSIONS

In this study, the challenges to, facilitators of, and strategies to strengthen skin cancer prevention were examined. While actors involved with skin cancer prevention tend to have strong policy cohesion, they tend to have limited resources to make an effective impression on policy-making and competing priorities for their time. A myriad of political barriers also inhibit the issue, including that the benefits of prevention are well outside short political timeframes compared with other initiatives vying for political attention, its lack of negative externalities and, in NZ, misalignment with health system priorities. Promising strategies to strengthen skin cancer prevention in NZ could include network building, using framing that

resonates with policy makers and addressing—and subsequently disseminating—some key knowledge gaps in NZ, such as the financial burden of skin cancer. Making progress in this space is increasingly important given the high incidence, but high preventability, of skin cancer.

ACKNOWLEDGEMENTS

The authors thank the interviewees for their time, and the University of Otago and the Cancer Society of New Zealand Inc for funding this research.

CONFLICT OF INTEREST

We have no conflicts of interest to declare.

ETHICS APPROVAL STATEMENT

This study received ethical approval from the University of Otago Ethics Committee (Health) (D18/022).

ORCID

Ryan Gage https://orcid.org/0000-0003-3491-9405
Anthony I. Reeder https://orcid.org/0000-0003-2895-7093
Bronwen M. McNoe https://orcid.org/0000-0003-3314-5604
Louise Signal https://orcid.org/0000-0003-4715-6718

REFERENCES

1. Tabbakh T, et al. Implementation of the SunSmart program and population sun protection behaviour in Melbourne, Australia: results from cross-sectional summer surveys from 1987 to 2017. PLoS Medicine. 2019;16(10):e1002932.
2. Sandhu PK, et al. Community-wide interventions to prevent skin cancer: two community guide systematic reviews. Am J Prev Med. 2016;51(4):531–9.
3. Shih ST, et al. Economic evaluation of future skin cancer prevention in Australia. Prev Med. 2017;99:7–12.
4. Gordon L, et al. Prevention versus early detection for long-term control of melanoma and keratinocyte carcinomas: a cost-effectiveness modelling study. BMJ Open. 2020;10(2):e034388.
5. Gordon LG, et al. Association of indoor tanning regulations with health and economic outcomes in North America and Europe. JAMA Dermatol. 2020;156(4):401–10.
6. Gordon LG, Rowell D. Health system costs of skin cancer and cost-effectiveness of skin cancer prevention and screening: a systematic review. Eur J Cancer Prev. 2015;24(2):141–9.
7. Gordon LG, et al. Consequences of banning commercial solaria in 2016 in Australia. Health Policy. 2020;124(6):665–70.
8. Kyle JW, et al. Economic evaluation of the US Environmental Protection Agency's SunWise program: sun protection education for young children. Pediatrics. 2008;121(5):e1074–84.
9. Lazovich D, Choi K, Vogel R. Time to get serious about skin cancer prevention. Cancer Epidemiol Prev Biomark. 2012;21(11):1893.
10. Poochareon VN, Cockerell CJ. The war against skin cancer: the time for action is now. Arch Dermatol. 2005;141(4):499–501.
11. Morales K. UK must tackle road crashes, skin cancer, and asthma. BMJ (Clinical Research ed.). 2005;331(7524):1044.
12. US Department of Health and Human Services. The surgeon general's call to action to prevent skin cancer, in skin cancer as a major public health problem. Washington (DC): Office of the Surgeon General (US); 2014.
13. McNoe B. Prevention is better than cure: We can do better in skin control in New Zealand! NZMJ, (In press).
14. Signal LN, et al. The state of cancer prevention in Aotearoa New Zealand: slow progress requires political leadership and investment for health and equity. J Cancer Policy. 2020;23:100212.
15. Apalla Z, et al. Epidemiological trends in skin cancer. Dermatol Pract Conceptual. 2017;7(2):1–6.
16. Leiter U, Keim U, Garbe C. Epidemiology of skin cancer: update 2019. Adv Exp Med Biol. 2020;1268:123–39.
17. Bennadi D, Reddy CVK. Oral health related quality of life. J Int Soc Prev Community Dent. 2013;3(1):1–6.
18. Geller AC, et al. Interdisciplinary perspectives on sun safety. JAMA Dermatol. 2018;154(1):88–92.
19. Brownson RC, Chriqui JF, Stamatakis KA. Understanding evidence-based public health policy. Am J Public Health. 2009;99(9):1576–83.
20. Shiffman J, Smith S. Generation of political priority for global health initiatives: a framework and case study of maternal mortality. The Lancet. 2007;370(9595):1370–9.
21. Holden K, et al. Community engaged leadership to advance health equity and build healthier communities. Soc Sci (Basel, Switzerland). 2016;5(1):2.
22. Lesch M, McCambridge J. Waiting for the wave: political leadership, policy windows, and alcohol policy change in Ireland. Soc Sci Med. 2021;282:114116.
23. Lesch M, McCambridge J. Coordination, framing and innovation: the political sophistication of public health advocates in Ireland. Addiction. 2021. https://doi.org/10.1111/add.15404
24. Bernstein S, Hoffmann M. The politics of decarbonization and the catalytic impact of subnational climate experiments. Policy Sci. 2018;51(2):189–211.
25. International Agency for Research on Cancer. GLOBOCAN 2020 Estimated age-standardized incidence and mortality rates (World) in 2020, melanoma of skin, all ages. Available from: https://gco.iarc.fr/today/online-analysis-dual-bars-2?v=2020&mode=cancer&mode_population=regions&population=250&populations=250&key=asr&sex=1&cancer=16&type=0&statistic=5&prevalence=0&population_group=0&ages_group%5B%5D=0&ages_group%5B%5D=17&nb_items=10&group_cancer=1&include_nmsc=1&include_nmsc_other=1&dual_distribution=2&population1=250&population2=554&show_values=false&type_multiple=%257B%2522inc%2522%253Atrue%252C%2522mort%2522%253Atrue%252C%2522prev%2522%253Afalse%257D&type_sort=0
26. Kingstone S, Nicolson M. Sunsmart behaviours – outdoor socialisers. Wellington: Health Promotion Agency/Te Hiringa Hauroa; 2020.
27. Gage R, et al. Sun protection among New Zealand primary school children. Health Educ Behav. 2018;45(5):800–7.
28. Gage R, et al. Sun protection and shade availability in New Zealand's outdoor recreation spaces. N Z Med J. 2018;131(1484):30–7.
29. McNoe BM, Reeder AI. Adolescent sun protection at secondary school athletic sporting events - a misnomer. Aust N Z J Public Health. 2016;40(4):313–5.
30. Trowland H, et al. Sun exposure survey 2016: adult topline time series report. Wellington: Research and Evaluation Unit, Health Promotion Agency; 2016.
31. Sinclair CA, et al. The role of public health advocacy in achieving an outright ban on commercial tanning beds in Australia. Am J Public Health. 2014;104(2):e7–9.
32. Consumer NZ. Sunscreens. 2019 [cited 2021 02/09]; Available from: https://www.consumer.org.nz/articles/sunscreens-campaign/news-and-media
33. Kruse K, Walton D. Sun safety promotion in territorial authorities. Wellington: Health Promotion Agency Research and Evaluation Unit; 2013.

34. Gage R, et al. Shade in playgrounds: findings from a nationwide survey and implications for urban health policy. J Public Health. 2019;27(5):669–74.
35. Gage R, et al. Using google earth to assess shade for sun protection in urban recreation spaces: methods and results. J Community Health. 2018;43(6):1061–8.
36. Anderson C, et al. Shade in urban playgrounds in Sydney and inequities in availability for those living in lower socioeconomic areas. Aust N Z J Public Health. 2014;38(1):49–53.
37. Denburg AE, et al. Political priority and pathways to scale-up of childhood cancer care in five nations. PLoS One. 2019;14(8):e0221292.
38. Baker P, et al. Generating political priority for regulatory interventions targeting obesity prevention: an Australian case study. Soc Sci Med. 2017;177:141–9.
39. Signal LN, et al. Process, pitfalls and profits: lessons from interviewing New Zealand policy-makers. Health Promot Int. 2018;33(2):187–94.
40. Dalglish SL, Khalid H, McMahon SA. Document analysis in health policy research: the READ approach. Health Policy Planning. 2021;35(10):1424–31.
41. Farquharson K. A different kind of snowball: identifying key policymakers. Int J Soc Res Methodol. 2005;8(4):345–53.
42. Peterson E, et al. SunSmart news? Traditional media coverage of sun protection issues during springtime in New Zealand. Health Promot J Austr. 2019;30(2):272–5.
43. Te Aho o te Kahu. Mō Mātou Te Aho o te Kahu. Available from: https://teaho.govt.nz/about
44. SunSmart Councils: A Guide for Territorial Local Authorities and Health Promoters. [cited 2021 25 August]; Available from: https://www.sunsmart.org.nz/sites/default/files/documents/SunSmartCouncilsGuide_0.pdf
45. Montague M, Borland R, Sinclair C. Slip! Slop! Slap! and SunSmart, 1980–2000: Skin cancer control and 20 years of population-based campaigning. Health Educ Behav. 2001;28(3):290–305.
46. Adams PJ. Assessing whether to receive funding support from tobacco, alcohol, gambling and other dangerous consumption industries. Addiction. 2007;102(7):1027–33.
47. Ministry for Primary Industries. The one billion trees programme. 2021 [cited 2021 23 August]; Available from: https://www.mpi.govt.nz/forestry/funding-tree-planting-research/one-billion-trees-programme/about-the-one-billion-trees-programme/
48. Trees That Count. Join the trees that count community. 2021; Available from: https://www.treesthatcount.co.nz/
49. Trees for survival. Trees for survival. 2020 [cited 2021 25 August]; Available from: https://www.tfsnz.org.nz/
50. Choi K, et al. Life during lockdown: a qualitative study of low-income New Zealanders' experience during the COVID-19 pandemic. N Z Med J (Online). 2021;134(1538):52–6.
51. Smith K, et al. Tobacco, alcohol, and processed food industries - why do public health practitioners view them so differently? Front Public Health. 2016;4:64.
52. McNoe BM, Reeder AI. 'Out of the frying pan, but not into the fire': quantifying commercial cosmetic tanning services in New Zealand to inform endgame regulation. N Z Med J. 2016; 129(1446):84–8.
53. Weeramanthri TS, Bailie RS. Grand challenges in public health policy. Front Public Health. 2015;3:29.
54. Frieden TR. Government's role in protecting health and safety. N Engl J Med. 2013;368(20):1857–9.
55. Nielsen LS, et al. Occupational asbestos exposure and lung cancer–a systematic review of the literature. Arch Environ Occup Health. 2014;69(4):191–206.
56. Accident Compensation Corporation What we cover. 2021 [cited 2021 25 August]; Available from: https://www.acc.co.nz/im-injured/what-we-cover/
57. Ministry of Health Life Expectancy. 2018 [cited 2021 6 October]; Available from: https://www.health.govt.nz/our-work/populations/maori-health/tatau-kahukura-maori-health-statistics/nga-mana-hauora-tutohu-health-status-indicators/life-expectancy
58. Health Promotion Agency and Melanoma Network of New Zealand (MelNet). New Zealand skin cancer primary prevention and early detection. Wellington: Health Promotion Agency; 2017. Strategy 2017 to 2022.
59. Cairney P, Oliver K. Evidence-based policymaking is not like evidence-based medicine, so how far should you go to bridge the divide between evidence and policy? Health Res Policy Syst. 2017;15(1):35.
60. Mackay C. Towards a safe sun-bathing canopy. Switzerland: PLEA; 2006.
61. Ministry of Health and Cancer Society of New Zealand. Consensus statement on Vitamin D and sun exposure in New Zealand. Wellington: Ministry of Health; 2012.
62. Lorenc T, Jamal F, Csooper C. Resource provision and environmental change for the prevention of skin cancer: systematic review of qualitative evidence from high-income countries. Health Promot Int. 2013;28(3):345–56.

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

How to cite this article: Gage R, Leung W, Gurtner M, Reeder AI, McNoe BM, Signal L. Generating political priority for skin cancer primary prevention: A case study from Aotearoa New Zealand. Health Promot J Austral. 2021;00:1–11. https://doi.org/10.1002/hpja.545