

Executive summary

Research context Australia's incidence and mortality rates for melanoma are the highest in the world, and the incidence of non-melanoma skin cancers is also high and increasing. The overall cost of treating skin cancer in Australia is thought to be around \$300m per annum. The Australian Government has committed new funding of \$5.5 million over two years to educate Australians about the importance of protecting themselves from skin cancer. To help achieve this goal, a nationwide skin cancer campaign has been scheduled for the summer of 2006-07. The aim of the current research was to inform the strategic development of the national skin cancer awareness campaign, by exploring the target audience's awareness and attitudes, knowledge and skills, and motivations and barriers to behaviour change relating to both sun protection and early detection of skin cancer.

Research design In total, 17 group discussions and 17 depth interviews were conducted in January 2006 with the following segments of the community, which were potential target audiences for the communication campaign

- adolescents in Years 9 to 12,
- young people aged 18 to 24 years,
- parents of children aged 2 to 5 years,
- parents of school-aged children,
- adults aged 50 years and over, and
- people who had had a skin cancer removed.

The research was conducted in eight locations across Australia, including metropolitan, regional and rural areas, which were chosen to include a variety of latitudes, lifestyles and degrees of proximity to the coast.

Issue salience When asked to name the health issues they considered to be of greatest personal relevance, few participants mentioned skin cancer or sun protection specifically. While these issues appeared to be more prominent in the minds of people living in coastal locations, even then a range of other health concerns came more readily to mind and were thought to be of greater concern. Participants in all age groups mentioned a wide variety of health risks and diseases, including consumption of alcohol, tobacco and other drugs, obesity, poor nutrition and lack of exercise, cancer, heart disease, mental illness, and the risk of accidental injury. Younger participants were particularly concerned about the risk of drugs and sexually transmitted diseases, with younger females also mentioning eating disorders such as bulimia and anorexia. While the risk of cancer in general was the most prominent health issue for many older participants, forms of cancer other than skin cancer were sooner mentioned and more deeply feared. Those who had a personal or family history of skin cancer were, not surprisingly, most likely to place the risk of skin cancer nearer to the top of their list of health concerns.

Tanning Having a suntan was generally seen to be desirable, and was closely associated with beauty and health. For many, the main reason for desiring tanned skin was simply that it was understood to be desired by others: it was generally agreed that a tan increases one's attractiveness or "sex appeal". Underlying this attractiveness were health and lifestyle associations. Tanned people were thought to look and were often assumed to be fitter and to lead a more active outdoor lifestyle. This is not to say that pale skin was uniformly thought to be unattractive: when discussing an assortment of magazine images, skin colour emerged as just one of a number of characteristics that contribute to attractiveness. A suntan, while inherently desirable, was not thought to be essential. It was commonly noted that social attitudes towards tanning have changed with increased knowledge of the risks of sun exposure, and that deeply tanned skin was probably not as fashionable as it may have been in earlier decades.

Some participants (especially among younger groups) reported actively seeking a tan, through deliberate sun exposure, or through artificial means such as lotions, sprays or "solariums". Most

participants said that they would not mind achieving a tan incidentally, in the course of their work, everyday or leisure activities. A few (primarily those who noted, that their pale skin would burn sooner than tan) were averse to the idea of tanning and more likely to avoid sun exposure assiduously. While tanning was considered by most to be a seasonal phenomenon (with an artificially-induced “winter tan” regarded somewhat suspiciously by some as “unnatural” and even “vain”), the practice of “occasional tanning” was generally seen as acceptable. Female participants, of all ages, noted that it was not uncommon to use tanning lotions and sprays, much as one would use any other form of cosmetic often applied for parties, going out, and special events such as school formals and weddings.

The health risks of tanning were commonly thought to be relative rather than absolute, and were judged with reference to an individual’s behaviour and “natural skin colour”. Extreme, deliberate and long-term tanning were thought to pose significant health risks and bring about undesirable aesthetic consequences. Skin damaged by long-term sun exposure was held, by participants in all age groups, to be exceptionally unattractive, and was commonly described, with some repulsion, as “leathery”, “cooked” or “baked”. The risk of skin cancer was mentioned in this context, but it was linked more to the idea of excessive sun exposure than to sun exposure *per se*. Far from posing a health risk, moderate tanning gained through regular, incidental and short periods of sun exposure was often thought to be beneficial. Some participants believed it offered a form of “immunity” or protection against sunburn.

Knowledge of risks and consequences

Skin cancer was universally understood to be a potential long-term consequence of sun exposure. Nonetheless, participants varied in their ability to identify and explain risk factors, and in their understanding of the nature of skin cancer and available methods of treatment. While most acknowledged that skin cancer can be fatal, participants tended to speak of it as a visible, superficial and treatable condition; one which was consequently of lesser concern than other common (internal) cancers. It was also common to speak of “a skin cancer” rather than “skin cancer”, reflecting a perception of skin cancer as an isolated lesion rather than a condition. The perception that greater effort and expenditure are invested to fight against other, more prominent, types of cancer may also strengthen the belief that skin cancer is less threatening.

On the whole, participants tended not to distinguish between different types of skin cancer, and did not display a sophisticated understanding of the nature of the disease. The word

“melanoma” was widely used, with the word “carcinoma” less widely used but sometimes recognised. The distinction between “basal cell” and “squamous cell” carcinomas was clear to a handful of participants, with most aware only that some skin cancers pose a greater threat to life than others. There was limited recognition that the visible component of a skin cancer may represent only a part of the full tumour, and some had an understanding that skin cancer could spread, although the term “metastasis” was not commonly used or understood. Skin cancer tumours on parts of the body more distant from vital organs were generally thought to present less a risk than those occurring on the torso or face.

Risk factors mentioned by participants included family history, skin type, having already had a skin cancer, and frequent and/or extreme sunburn. Sunburn was often used as a yardstick, with noticeable short-term damage thought to be a precursor to long-term damage. Although there was a belief that skin cancer could result from cumulative exposure over many years, it was thought more likely to result from successive bouts of intense exposure (with sunburn) than from ongoing, moderate exposure (without sunburn). When asked how often they would get sunburnt, many reported being burnt at least once or twice a year. This was generally seen to be normal, and not thought to be a major cause for concern.

Other forms of short-term damage mentioned included dehydration and sunstroke. Long-term consequences other than cancer included premature ageing of the skin and, though it was mentioned only in a handful of instances, damage to the eyes.

Most appeared familiar with the terms “UV” and “ultra violet”, yet many had limited knowledge but nevertheless understood UV to be harmful. It was generally understood that “broad-spectrum” protection was required, but there was limited awareness or understanding of the difference between UVA and UVB. The “UV index” included in weather reports was familiar to some, but it did not appear to have a significant influence on most participants’ behaviour.

Sun protection strategies and behaviours

Various meteorological factors made it reportedly less likely that people would adopt sun protection measures. These factors included cooler temperatures, fresh breezes, lower humidity and cloudy weather.

Protected exposure was also strongly associated with planned outdoor activities, being near water (especially at the beach), wearing swimwear and playing sport. Yet some outdoor activities, such as shopping, and formal outdoor occasions, such as weddings, were often overlooked. Participants believed that there had been significant generational improvements in

people's understanding, attitudes and behaviour regarding sun protection. However, many felt they could do better at protecting their own, and their children's, skin from the dangers of sun exposure.

People often relied on a single sun protection measure, most commonly sunscreen. One perceived advantage was that sunscreen does not impinge on fashion, which was a stronger concern among women, who were also seen as more open to using lotions on their skin compared with males. Some argued that sunscreen was inconvenient, difficult to apply thoroughly and evenly, expensive and made the skin feel oily. Although people generally showed good knowledge of correct sunscreen use (particularly regarding the need to reapply), this was not always reflected in their reported behaviour. The need for pre-sun application was not universally understood and often seen as inconvenient, and few understood what SPF actually meant, beyond the understanding that higher numbers provide greater protection.

Suitable hats were worn on a regular basis by younger children, but usually not by adolescents or adults, and particularly not by females. Where worn by adults, hats tended to have restricted or narrow brims and be worn for fashion reasons rather than sun protection, particularly among adolescents. Hat policies were strongly associated with primary school culture, but rarely with secondary school culture. Wearing long clothing was judged to be impractical, uncomfortable, and often unfashionable in warm weather. Sunglasses were widely used, except among children, yet this was generally not motivated by a desire for protection from the long-term effects of the sun.

Shade was less salient (and less often used) as a protective strategy, and was sometimes reported to be insufficient, unavailable or impractical and restrictive. Shade was most likely to be used when temperatures were high. Similarly, reducing time spent outdoors and avoiding exposure during the middle of the day were seen as effective yet impractical.

Protecting oneself from sun exposure Although it was seen to be important, preventing skin cancer did not emerge as the primary motivation for protecting oneself from sun exposure. While participants were aware of the risk of skin cancer, there were other considerations that appeared more directly and immediately to influence sun protection behaviour. Avoiding the pain, unsightliness and embarrassment of sunburn emerged as the key reason for protecting against sun exposure, with long-term aesthetic consequences (including scarring from skin cancer removal) also a prominent motivation, particularly among

women. This is not to say that skin cancer was not seen to be an important reason to protect oneself, merely that it was more likely to be thought about after signs of short-term damage appeared than before choosing to expose one's skin. For younger participants, avoiding the insistent reprimands of their parents was also mentioned as a source of motivation. In all, issue salience and lack of motivation appear to be greater barriers to protection against sun exposure than does ignorance of the risks of such exposure or of the strategies for sun protection.

Early detection Most older participants reported having had a skin check or having checked their skin themselves at some stage. Younger people typically perceived skin checks as something for older people. Most people had some idea that they should look for moles that had changed size or shape, but few felt confident in their ability to detect such changes and to determine whether it was worth visiting a health professional. Some expressed interest in brochures showing examples of skin cancer and what to look for.

A key motivation for checking one's skin or having it checked was a personal or family history of skin cancer or prominent moles, or knowing people who had skin cancer. Some felt that the presence of prominent screening services in the local community sent out a message that this was a serious issue and encouraged people to have their skin checked. Recommendations by health professionals were also seen as an important driver of such behaviour.

A major barrier for many people was that skin checks were not seen as relevant, important or urgent for them personally. Other issues were not knowing what to look for, not being able to detect whether their skin had changed, or not being in the habit of looking at certain areas of their body. Among older participants, not being able to see all parts of their body and poor eyesight were also potential problems with self-checks. Some people felt they were restricted by the limited number of skin specialists, as well as the expense and difficulty of securing an appointment. A number of people were also uncomfortable with having to strip and have intimate areas examined by a health professional.

Sources of knowledge Various information sources were perceived to have contributed to people's knowledge about sun protection and skin cancer. The most significant sources included TV advertising (both non-commercial and commercial), media reporting (especially current affairs programs) and the personal experiences of families and friends. Parents saw schools, especially primary schools, and childcare centres as valuable sources of knowledge, and many adolescents and young people could recall learning

about sun protection through school. Health professionals, pamphlets from medical centres, and screening services were seen as particularly credible in terms of detection of skin cancer. Some participants also mentioned magazines and the surf lifesaving community.

Parents The understanding, attitudes and behaviour of parents differed from those of other community segments included in the research. While skin cancer did not appear to be a more salient health risk among parents than other groups, parents were keenly aware of the importance of sun protection as part of looking after their children. Parents were also more alert to generational differences in knowledge and behaviour, with evidence suggesting that a generational link in parenting practice is already being broken.

Parents were as likely as other groups to appreciate the appeal of a suntan, but they were less concerned with having a tan themselves, and were keen to discourage (or prevent) deliberate tanning among their children. Parents were also inclined to believe that children benefit from some level of sunlight.

Parental knowledge and use of appropriate sun protection measures for their children were relatively high, as was their motivation to protect their children from sunburn, as well as the long-term consequences of sun exposure. Parents were more likely than other segments to use multiple sun protection measures on their children, with sunscreen and hats being the combination most frequently used. Use of protection was closely associated with specific circumstances, locations and activities, and was triggered by situational and weather-related factors. In addition to various situational cues, parents reported that they were more likely to protect their children's skin when it was mandatory, when they faced peer pressure, and if their children had fair skin. While parents did not want to be accused of being over-protective, they expressed a strong desire to be, and to be seen to be, good, responsible parents.

Parents highlighted a number of potential barriers to using sun protection, including the additional time and effort required to implement sun protection measures for children, and to deal with any resistance from their children. Another barrier was low risk perceptions, which also discouraged parents from adopting protective measures for themselves. Other issues included forgetting to apply protective measures, lack of availability of sun protection aids, and children's having sensitive skin or skin-related allergies. Fashion was a potential barrier for their own (but not their child's) skin protection.

On the whole, sun protection norms for children are affecting parents' behaviour. Schools and childcare centres were considered a key source of knowledge by parents, and were seen to be setting the standard. Some parents believed that sun protection for children was being seen as increasingly "normal", both among parents and the children themselves. A number of parents expressed a desire for their children to develop good long-term sun protection habits. There was clear evidence that behaviours enforced within the school setting can flow on to established weekend practices, but it was generally acknowledged that sun protection was part of primary school culture, not secondary school culture.

Age differences Most parents appear to be motivated to protect their children's skin. In many cases, they report that parenthood also encouraged them take sun protection more seriously than when they themselves were young. The research showed that the sun protection behaviours that are established in pre-school and primary-school age children did not usually persist into secondary school, due to declining parental influence and less stringent school policies.

Although tans were considered to be desirable across different age bands, teenagers and young adults seemed to be the most oriented to the aesthetic benefits of tanning and therefore most likely to seek a tan. Adolescents also tended to report a higher incidence of burning than older age groups, although perhaps not as high as that experienced by older people at a comparable age (consistent with a view that sun protection behaviours are improving generally over the generations, although young people remain the most likely to take risks).

Older people appeared considerably more motivated than younger adults to check their skin for potentially cancerous changes, especially moles.

Despite these age differences, the research suggests that a well-chosen message or series of messages could be successfully communicated to the whole community.

Reactions to advertising There was reasonably high unprompted awareness of various sun protection advertisements, both non-commercial (most commonly, the "Slip! Slop! Slap!" ad) and commercial ads (in particular, the Banana Boat sunscreen ad). The SunSmart brand was especially salient among parents in the context of "SunSmart schools".

The Slip! Slop! Slap! ad and its message were almost universally recognised, with the phrase itself having effectively entered the cultural lexicon. In addition to recognising the Slip! Slop! Slap! seagull character, many fondly recalled the jingle and saw it as having put sun protection on the agenda. Participants felt the ad was action-oriented, catchy (particularly for children) and capable of increasing awareness of sun protection and the need for multiple protection measures. However, it was felt that the ad no longer presents any new information for its adult audience. It remains powerful at a socially normative level, suggesting that sun protection (of one's children) is normal and expected by society.

The "Tattoo (Killer Body Art)" ad resonated well with younger audiences, particularly females. The strengths of this ad are that it directly challenges existing views about the safety of tanning and, to an extent, that it leverages people's fear of scarring. However, the short-term appeal of a tan (depicted via a young, attractive woman) is likely to outweigh any concern about long-term effects on looks. Some also felt that the moving image distracted from the message of the voiceover, that it was not easy for many viewers to identify with a young woman in a midriff top, and that the ad could in fact undermine its own message about the seriousness of skin cancer by reinforcing beliefs about transience (that skin cancer can be excised, leaving only a scar which fades with time).

Reactions to the "How to Remove a Skin Cancer" ad were mixed. Of the three advertisements shown, this was the ad that adults perceived to be most effectively targeted at their own skin concerns, although some noted that such graphic images could frighten young children. Many liked the idea of being shocked, while others claimed they would "switch channels" or look away to avoid such graphic ads at home. In this ad, images again tended to overshadow the spoken word for many people. While participants liked the fact that this ad showed the potential consequences of sun exposure, thereby increasing their perceptions of the seriousness of skin cancer, for many, it was counterproductive, reinforcing the notion that skin cancer is treatable. Fear of disfigurement and discomfort associated with watching the ad contrasted with the unexpected use of humour, helping to make the ad memorable.

Conclusions and recommendations In the minds of Australians, skin cancer is generally not prominent or 'top of mind'. This is despite a latent desire to take all reasonable precautions to avoid skin cancer. Furthermore, the research suggests that large numbers of people hold significant misconceptions about the nature of the risk from

sun exposure. Hence, a mass market campaign does appear to represent a sensible response to the skin cancer epidemic in Australia.

Overall, the research suggests that the focus of a national skin cancer awareness campaign should be prevention. It is worth noting that the two objectives of prevention and early detection are not necessarily antithetical, and that increasing people's motivation to prevent skin cancer is likely to provide benefits in the area of early detection.

All sections of the community are likely to benefit from prevention messages, and so it would be beneficial to design the campaign with a broad audience in mind. However, young people are the group that has the highest incidence of burning, and who appear to have the greatest orientation to tanning (consistent with the findings of the recent National Sun Survey¹). During secondary school, the school and home environments appear to have a declining influence on sun protection behaviours, and this segment does not yet experience the positive influence that appears to stem from having one's own children. This group is also highly influential in setting societal norms for active outdoor living. Therefore, the greatest benefit may be derived from ostensibly targeting the campaign at a younger audience (i.e. 16-25 year olds), but in fact having a broader audience in mind.

The research suggests that there is scope for a positively or negatively framed campaign, and that a combination of positive and negative elements might also be instrumental in promoting attitudinal and behavioural change.

There are a number of possible messages that could produce the desired behaviour changes, and the research identified various approaches for delivering these messages that warrant consideration. These are discussed in more detail in Section 5 of this report. The research highlighted a number of widely held misconceptions relating to tanning and the risks of sun exposure, and care will be required to ensure that these are not inadvertently reinforced through the campaign.

¹ (a) Bowles, K., Dobbinson, S., et al. (2005). Sun protection and sunburn incidence of Australian adults: summer 2003-04. Melbourne, Cancer Council Victoria. (b) Dobbinson, S., Bowles, K., et al. (2005). Sun protection and sunburn incidence of Australian adolescents: summer 2003-04. Melbourne, Cancer Council Victoria.