

DEPARTMENT OF HEALTH AND AGEING

February, 2006

Eureka project 3190

DEVELOPMENTAL
RESEARCH FOR
NATIONAL SKIN CANCER
CAMPAIGN

Table of contents

Executive summary	2
Research context	12
2.1 Background	12
2.2 Research objectives	17
Research design	19
3.1 Qualitative methodology	19
3.2 Sample structure	19
3.3 Conduct of the research	24
Research findings	27
4.1 Issue salience	27
4.2 Tanning	29
4.3 Knowledge of risks	36
4.4 Sun protection strategies and behaviours	45
4.5 Protecting oneself from UV exposure	50
4.6 Early detection	53
4.7 Sources of knowledge	57
4.8 Parents	58
4.9 Reactions to advertising	69
4.10 Considerations in addressing particular audiences	74
Conclusions and recommendations	76
Appendix A	86

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.

Research context

This section outlines the background to the project, and specifies the research objectives.

2.1 Background

Skin cancer in Australia Skin cancer is a particularly significant issue for Australia. Australia's incidence and mortality rates for melanoma are by far the highest in the world:² around four times higher than those found in Canada, the UK and the US and up to ten times higher than in other countries. The overall cost of treating skin cancer in all its forms in Australia is thought to be around \$300 million per annum.³

There are three main types of skin cancer: melanoma, basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), with the latter two being types of non-melanoma skin cancer (NMSC). These different types are discussed in more detail below.

Melanoma Of those cancers systematically reported to cancer registries, melanoma is currently the third most common cancer among women (at around 10% of new cases) and the fourth most common cancer among men (also around 10% of new cases). There were 8,885 people who developed melanoma in 2001 and 1,012 deaths.⁴ It is projected that by 2011, melanoma will overtake lung cancer as the third most common cancer among men. For Australians aged 15 to 44, it is predicted that the incidence of melanoma will be even greater – melanoma is expected to become the second most common form of cancer for

² I McDermid. *Cancer incidence projections, Australia 2002 to 2011* Australian Institute of Health and Welfare (AIHW), Australasian Association of Cancer Registries (AACR) and the National Cancer Strategies Group (NCSG), Canberra, 2005, p. xvi. <http://www.aihw.gov.au/publications/can/cipa02-011/cipa02-011.pdf>. Accessed 22-11-2005.

³ Cancer Council Victoria, *SunSmart Program 2003–2006*, Melbourne, 2003, p. 6. http://www.sunsmart.com.au/downloads/about_sunsmart/sunsmart_program_2003_2006.pdf. Accessed 22-11-2005.

⁴ Australian Institute of Health and Welfare and Australasian Association of Cancer Registries 2004.

women, and the most common for men⁵. Melanoma is one of the most aggressive forms of human cancer, and has perhaps the highest impact on productive life years because it affects young people to a relatively greater extent than most cancers.⁶

NMSC While melanoma is the deadliest form of skin cancer, there are other more common skin cancers for which data are not routinely collected by state and territory cancer registries (with the exception of Tasmania). Non-melanoma skin cancer (NMSC) – including basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), as noted above – is in fact the most widespread class of skin cancer in Australia. National household surveys have estimated NMSC to be three times more common than all other forms of cancer diagnosed in Australia⁷. Survey findings indicate that around 118,000 Australians were treated for SCC in 2002, with a further 256,000 treated for BCC⁸. It is estimated that, in terms of dollars spent on diagnosis and treatment, NMSC costs Australia more than any other cancer⁹.

The vast majority of NMSC's are curable. They spread slowly and, when detected early, can be treated well before they become life-threatening. Ease of detection and successful treatment options are not the only weapons against skin cancer: It has long been known that exposure to ultraviolet (UV) radiation is the single greatest cause of all types of skin cancer, and that genetic inheritance generally plays less of a direct role than it does in other cancers. It follows that primary prevention strategies aimed at minimising risk and influencing healthy sun-exposure behaviour do have the potential to make a significant positive difference.

⁵ McDermid p. 1.

⁶ Australian Cancer Research Foundation website
http://www.acrf.com.au/plugins/newsfeed.cgi?rm=content&plugin_data_id=4680 Accessed 22-11-2005

⁷ MP Staples, ed. *The 2002 national non-melanoma skin cancer survey: A report by the NCCI Non-melanoma Skin Cancer Working Group*, National Cancer Control Initiative, Melbourne, 2003, p. 9. <http://www.ncci.org.au/pdf/NMSCreport.pdf> Accessed 22-11-2005.

⁸ Staples, p. 7.

⁹ Staples p. 9.

⁶ Cancer Council Victoria p. 1.

**Strengthening
Cancer Care**

The Australian Government's Strengthening Cancer Care initiative has allocated more than \$189.4 million over the five years to 2008-09 to help reduce the burden of cancer. The key aims of this initiative are to achieve better coordination of the national cancer effort; increase research funding for cancer care; enhance cancer prevention and screening programs; and ensure better support and treatment for those living with cancer¹⁰. Under this initiative, the Government has committed new funding of \$5.5 million over two years, to 2006-07, to educate Australians about the importance of protecting themselves from skin cancer. To help achieve this objective, the Australian Government Department of Health and Ageing (the Department) is planning a nationwide skin cancer campaign, to be held in the summer of 2006-07.

**Past campaigns
and research**

Numerous skin cancer prevention campaigns have been implemented in Australia since the 1970s, and the most successful of them are well regarded both at home and abroad. The memorable "Slip! Slop! Slap!" campaign, for example, launched by the then Anti-Cancer Council of Victoria¹¹ in 1980, was influential not only across Australia but internationally: As recently as 1998, its slogan was borrowed by the American Cancer Society for its own awareness-raising campaign¹².

A short history of past campaigns would include the following:

- 1980-1988 The "Slip! Slop! Slap!" campaign, designed to increase broad awareness of skin cancer and sun protection strategies, was found to have helped combat pro-tanning attitudes, change sun-protection behaviour and reduce sunburn.
- 1988 The Cancer Council Victoria launched its "SunSmart" program, involving multiple strategies, including mass media, sponsorship, education and policy development. The program



¹⁰ Australian Government Department of Health and Ageing, *Health Fact Sheet 1 - Investing in Australia's health: Strengthening Cancer Care*, <http://www.health.gov.au/internet/budget/Publishing.nsf/Content/health-budget2005-hbudget-hfact1.htm>. Accessed 22-11-2005.

¹¹ Referred to subsequently in this report by its current name "Cancer Council Victoria".

¹² American Cancer Society website http://www.cancer.org/docroot/NWS/content/NWS_5_1x_Slip_Slop_Slap.asp. Accessed 22-11-2005.

continues today and elements of it have been borrowed by other States, and the brand enjoys high recognition among Australians.

- 1990-1995 The Cancer Council Victoria's "You can leave your hat on" and "The Line" campaigns; aimed at influencing younger people's sun protection attitudes, in particular at countering the idea that sun protection is unfashionable. These campaigns were found to have high recall but limited behavioural impact.
- 1990-2002 The "Me no fry" campaign, developed in New South Wales and later adopted by Western Australia. This campaign specifically targeted adolescents in an attempt to replace a 'sun-worship' culture with one of sun protection. The campaign was found to have had mixed results, with some short-term behavioural changes in NSW.
- 1997 The Cancer Council Victoria launched a confronting campaign, "How to remove a skin cancer", which was aimed at 16-24 year-olds. Recall of the campaign was high (75% over two years), and the campaign evaluation found that one in two Victorians respondents agreed that the ad increased the likelihood of their checking their skin for skin cancer or asking a doctor to do so.
- 1997-2000 New South Wales Cancer Council conducted a campaign targeting parents and carers of children 0-11 years of age, using "Seymour the Snowman". Recall was found to be relatively high. Short-term increases in sun protection behaviour were observed and there were found to be some improvements in the importance parents placed on protecting their children from the sun.
- 1999-2001 The Cancer Council Victoria launched another graphic campaign, "Timebomb", to reduce UVR exposure among 16-25 year olds, especially young men. The advertisement had a similar effect on sun protection behaviour as "How to remove a skin cancer", but total awareness was lower for "Timebomb". The campaign was also run with some success in 2000-01 in Victoria and SA.
- 2003-2005 A "Tattoo" campaign with the slogan "skin cancer, it's killer body art", developed by the Cancer Council Victoria, was introduced in Victoria and New



South Wales to dispel misconceptions about the risks of tanning. Findings from the 2004 Victorian evaluation revealed lower awareness than anticipated. It achieved greater recall levels in 2005.

- 2004 The Cancer Council New South Wales developed a campaign targeting older Australians 55 years and over with an early detection message. No evaluation results are yet available.

While past mass-media skin-cancer campaigns have had some success in influencing community attitudes, they have for the most part been limited to particular States and Territories. The continued prevalence of skin cancer suggests that Australia would benefit from a nation-wide campaign soundly informed by past successes and further developmental research. The Department has consulted representatives of State and Territory Cancer Councils to draw upon their campaign development experience and expertise.

The Department itself has not conducted specific research into skin cancer, sun protection or early detection. In 2003-04, however, the Department contributed towards the funding of a National Sun Survey, coordinated by the Cancer Council Victoria, which shed light on important attitudinal and behavioural factors, including:

- suntan desirability;
- hours spent outdoors in summer;
- sunburn incidence;
- level of sun protection among different age groups and genders;
- predictors of time spent outdoors during peak UV times; and
- predictors of sun protection measures

This telephone survey was the first national collection of behavioural data on sun protection, although behavioural data has been collected by Victoria since the summer of 1987-88.

The need for further research With the exception of the National Sun Survey, past research has been limited in scope. Small in scale, confined to individual States or Territories, and undertaken more often to develop or evaluate specific campaigns than to investigate consumer perceptions and behaviours, past research was

considered insufficient to guide the development of a new national campaign strategy. Therefore, the Department commissioned Eureka Strategic Research to undertake developmental research. The research objectives are specified under the following heading.

2.2 Research objectives

Overall, the aim of this research was to inform the strategic development of a national skin cancer awareness campaign by exploring the target audience's level of awareness and attitudes, knowledge and skills, and motivations and barriers to behaviour change relating to both sun protection and early detection of skin cancer.

To guide the 2006/7 campaign, the research sought to explore:

- levels of awareness and understanding about sun protection and early detection of skin cancer;
- attitudes, knowledge and skills regarding sun protection and early detection of skin cancer;
- perceptions of skin cancer risk;
- barriers to sun protection and early detection of skin cancer, and
- any potential segmentation of the target audiences.

The research program undertaken to meet the research objectives and explore these issues is outlined in the following section.

In meeting these objectives, it was useful to consider the following questions:

- Is a mass market campaign appropriate?
- Should its focus be prevention or detection?
- At whom should the campaign be targeted?
- Should the message be positively or negatively framed?

- What message(s) should the campaign seek to convey?
- Are there any approaches that should be explored?
- What unintended messages should be avoided?

These questions were used to guide the analysis and frame the conclusions and recommendations reported in this document.

Research design

This section provides details of the research methodology.

3.1 Qualitative methodology

Qualitative research is exploratory, allowing for a detailed and flexible examination of the nature of people's understanding, attitudes and behaviour. It was therefore an appropriate vehicle for uncovering and identifying issues relating to sun protection and early detection of skin cancer among various segments of the community. The adoption of face-to-face qualitative techniques allowed investigation of participants' reactions to various visual stimuli.

A program of group discussions was employed, complemented by a series of individual depth interviews across the major groups of interest.

3.2 Sample structure

Research participants

The target audience for the Department's skin cancer awareness communication campaign potentially includes adolescents and young adults, parents, older adults and people who have had a skin cancer removed. It was important that the research incorporate the views of all of these segments of the community, in order to inform decisions regarding the optimal target audience for the campaign. Based on consultation with the Department, it was established that it would be appropriate to give greater focus to issues relating to skin cancer prevention than early detection. Therefore the research program was skewed towards the younger age groups.

Sample

A total of 17 group discussions and 17 depth interviews was conducted (with an average of 8 participants per group discussion). An overview of the sample structure is presented in the following table, and further details for each segment are provided below.

Target Audience	Group discussions	Depth interviews
Years 9-10	3	3
Years 11-12	3	3
18-24 year olds	4	2
Parents (stratified by age/s of children)	4	2
50+ year olds	3	2
Skin cancer removed	-	5

Adolescents Eureka conducted 6 group discussions and 6 depth interviews with adolescents, as outlined in the following table.

		Gender	Years 9-10	Years 11-12
Location	Metropolitan	Male	1 group discussion 1 depth interview	1 group discussion 1 depth interview
		Female	1 group discussion	1 depth interview
	Regional / Rural	Male	1 depth interview	1 group discussion
		Female	1 group discussion 1 depth interview	1 group discussion 1 depth interview

School year. As the teenage years are a time of rapid personal and social development, the groups were separated into relatively narrow ranges. Participants who attended school were segmented by school year, rather than by age, since school year is more likely than age to influence school students' interests, attitudes, and social environment, thereby acting as a better

proxy for developmental maturity and allowing greater group cohesion. Hence, the sample was separated into two strata, Years 9-10 and Years 11-12¹³.

Gender. It was considered appropriate to conduct single-gender group discussions with students in Years 9-12. In addition to being consistent with best practice, this helped to promote uninhibited discussion, particularly relating to perceptions of body image and tanning.

Young adults We conducted 4 group discussions and 2 depth interviews with young adults, as indicated below.

			18-24 years
Location	Metropolitan	Male	1 group discussion
		Female	1 group discussion 1 depth interview
	Regional / Rural	Male	1 group discussion 1 depth interview
		Female	1 group discussion

Age. Group cohesion was not expected to be a significant issue, given that the age range for young adults (18-24 years) was not too broad, and because anyone in this age range who was still attending school was incorporated into the school-age group discussions instead.

Gender. Given the potential sensitivity of the discussion (e.g. perceptions of body image and the perceived desirability of a tan), the views of males and females aged 18-24 years were also explored separately. Gender and location of the young adult group discussions and depth interviews were chosen to be semi-counterbalanced with the adolescent sample structure.

Parents Eureka conducted 4 group discussions and 2 depth interviews with parents, as the following table indicates.

¹³ The views of children in Year 8 or below were more appropriately and efficiently accessed via the views of their parents, given the relatively high influence of environmental factors (e.g. parents and school) on their sun exposure and their communication limitations in the context of a group discussion.

		Age of child	
		Oldest child aged 2-5 years	At least one child of primary school age
Location	Metropolitan	1 group discussion 1 depth interview (female)	1 group discussion
	Regional / Rural	1 group discussion	1 group discussion 1 depth interview (male)

Age of child. It is likely that parents play a role, to some extent, in establishing and maintaining the protective behaviours of their children. The current research needed to include the views of parents of children in various age groups. Parents were divided into two groups, as indicated in the table above and described below, based on the educational progress (i.e. age) of their children.

- To investigate how protective behaviours were established (or not established) for young children, half the parents in the research had their eldest child aged between 2 and 5 years. This meant that their child was old enough to have had some sun exposure but was not yet in the school system. We included parents using formal child care and those who did not use formal child care.
- We also needed to speak with parents of infants' school and primary school aged children, so the selection criterion for this segment was parents with at least one child of primary school age¹⁴. The research included some participants whose eldest child was in primary school and others whose eldest child was in secondary school. This allowed us to look at parents' views on the apparent drop-off in young people's sun-protective behaviours in secondary school.

Gender. The roles adopted by males and females as parents can be different, but there was no reason to believe that either gender would self-censor within a mixed gender environment. Given that mothers are often more involved in their children's care than are fathers, the research was skewed towards females, while maintaining a mixed gender environment with a minimum of two males per group discussion.

¹⁴ Note that school stage terminology and starting ages vary in some states and territories.

Older adults Eureka conducted 3 group discussions and 2 depth interviews with older adults (people aged 50 years or more), as outlined in the following table.

Location	Metropolitan	2 group discussions 1 depth interview (male)
	Regional / Rural	1 group discussion 1 depth interview (female)

Within this older age group, there was no reason to stratify further by age or gender.

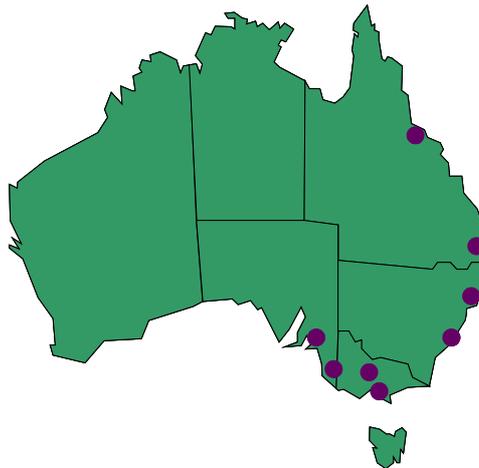
People who have had a skin cancer removed Five¹⁵ depth interviews were conducted with people who had had a skin cancer removed, as outlined in the following table. There were also numerous people with personal and/or family experience of skin cancer in the other parts of the sample.

Location	Metropolitan	Male	1 depth interview
		Female	1 depth interview
	Regional / Rural	Male	2 depth interviews
		Female	1 depth interview

This component of the research included some people whose skin cancer appeared at a relatively young age, as well as people with cancers related to either total exposure (e.g. SCC) or episodic exposure (e.g. melanoma).

Location The research was conducted in eight locations across four states, namely Queensland, New South Wales, Victoria and South Australia. The eight locations were Townsville, Brisbane, Coffs Harbour, Sydney, Melbourne, Bendigo, Mt Gambier and Adelaide, represented on the map below).

¹⁵ The original research program had included 4 depth interviews in this segment. During recruitment, contact was made with an individual who had melanoma and was relatively young (37 years). In order to explore this unique perspective, this individual was included in the research.



These states and locations were selected in order to incorporate the views of participants from a range of areas, including:

- metropolitan and non-metropolitan areas (both regional and rural locations);
- broad representation across socio-economic backgrounds, using location as a proxy;
- inland and coastal areas;
- low and high latitudes (i.e. high and low solar flux, varying seasonality); and
- areas with varying lifestyles and prior exposure to sun protection messages.

Although altitude is also related to skin cancer risk, the evidence in Australia is that there is not a sufficient number of people living at sufficiently high altitudes to have warranted specifically including this as a variable.

CALD and Indigenous backgrounds

People from Cultural and Linguistically Diverse (CALD) and Indigenous backgrounds were included in the research in approximate relativity to their occurrence in the population.

3.3 Conduct of the research

Research tools

Comprehensive discussion guides were developed in consultation with the Department (see Appendix A.).

Projective and enabling techniques, including word association tasks and other methods of indirect inquiry, were usefully employed in this research. They also made the proceedings more varied and interesting for the participants. In some of the discussions, a card sort 'ranking' exercise was also utilised in the discussion to compare various sun protection measures, encouraging discussion between participants and helping them to understand and verbalise the reasons behind their opinions.

Individual "notepads" were used at the start of the group discussions to help minimise any group leader effects that may otherwise have swamped the contribution of less confident participants, particularly in group discussions with adolescents.

Stimulus materials During discussion about perceptions of tanning, participants were shown various colour images from magazines and newspapers, a selection of which are shown in Section 4.2 of this report.

Three television commercials (TVCs) from previous sun protection and skin cancer screening campaigns were also shown to all participants. These TVCs (in the order in which they were shown) were:

- Slip! Slop! Slap!;
- Tattoo - Killer Body Art; and
- How to Remove a Skin Cancer.

These advertisements were selected in order to provide a variety of examples of approaches that have been taken to addressing sun protection and skin cancer, incorporating both positively and negatively framed messages.

Recruitment Parental permission was sought for all participants still attending high school (even though the ASMRS Code of Professional Behaviour only requires this for those under 16 years of age).

During recruitment, care was taken to ensure that participants were not aware of the topic prior to the group discussion, so that they did not think about the issues extensively prior to attending. The researchers felt that it would be undesirable to tell people that the discussion would be

about “health issues” or the like, because this ran the risk of framing sun exposure as a health issue in participants’ minds, when this may not naturally have been the case. So, participants were advised that the topic was “a social research project on the benefits and drawbacks of the way we live today”, since this did not disclose the subject matter, was not deceptive and yet sounded interesting. Furthermore, if participants asked on whose behalf the research was being conducted, they were told “it is being conducted on behalf of a government department”.

Any persons who currently or had previously worked in advertising/marketing/media were excluded from the research. Participants were also screened to ensure that they had not participated in a group discussion during the last six months.

Duration and fieldwork dates Group discussions were around 1¾ hours’ duration and depth interviews ran for approximately 45 minutes. All research was conducted face-to-face. Fieldwork was conducted between 12th and 19th January, 2006.

Incentives All participants received \$60 to thank them for their participation. For Year 9-10 students, participants themselves were given \$40 and a supplementary \$20 incentive was provided for parents who transported their child to and from the interview or group discussion, meaning that the incentive was effectively \$60 in all cases.

Research findings

The following sections present detailed research findings pertaining to each of the following issues:

- Issue salience
- Tanning
- Knowledge of risks
- Sun protection strategies and behaviours
- Protecting oneself from sun exposure
- Early detection
- Sources of knowledge
- Parents
- Reactions to advertising
- Considerations in addressing particular audiences

Where relevant, quotations from participants are used to illustrate the points being made. Quotations have been selected based on how effectively they illustrate the range of participant sentiments.

4.1 Issue salience

At the outset of the group discussions and interviews, participants were asked what they considered to be the main health issues for people like themselves. This question was asked before mentioning the topic of the research, to assess how salient sun protection¹⁶ and skin cancer were relative to other health issues, before explicitly raising these topics. Participants in

¹⁶ Participants generally referred to “sun protection” and “sun exposure” rather than “UV protection” and “UV exposure”, unless prompted about their views on UV. Although most understood that UV was not just direct sunlight, they were more likely to think about the dangers of skin cancer and burning when in direct sunlight. Therefore we refer

all age groups responded by mentioning a wide variety of health risks and diseases, as well as health-promoting activities. Typical issues mentioned were:

- Alcohol and other drugs (especially among younger participants)
- Smoking
- STDs (among younger participants)
- Mental health
- Nutrition
- Exercise
- Bulimia / body weight issues (especially among younger females)
- Obesity
- Sports injuries
- Car accidents
- Cancer (particularly among older participants)

Skin cancer and sun protection were rarely mentioned specifically. Although these issues appeared to be more prominent in the minds of people living in some locations (i.e. Townsville and Coffs Harbour), they were still less salient than other health issues. Skin cancer and sun protection were more likely to be salient among those participants who had a personal or family history of skin cancer. When prompted, most participants acknowledged that protecting one's skin against cancer was important. Overall, however, skin cancer was not seen to pose as great or as likely a threat as other illnesses, including other forms of cancer. When mentioning lifestyle choices and health-promoting activities, participants placed greatest emphasis on healthy diet and exercise. Sun protection was an important but, in most cases, a secondary

to "sun protection" and "sun exposure" throughout these findings to reflect participants' natural terminology, except where participants specifically mentioned "UV".

consideration. The typical view of skin cancer and sun protection is succinctly expressed by the following quote.

“It’s important, but in the back of your mind.” (Female, Year 9-10, Bendigo)

4.2 Tanning

Attitudes towards tanning A suntan was almost universally perceived to be desirable, both in one’s self and in others. Tans were seen to provide a range of aesthetic, psychological and health benefits. Indeed, a widely-held reason for desiring a tan was that it is thought to increase one’s own attractiveness.

“People want to be tanned.” (Male, Yr 11-12, Brisbane)

“The ideal of what you want to achieve.” (Female, 18-24 years, Adelaide)

“It certainly looks more attractive having a tan. I lived in Canberra for a while. A guy turned up at work and had a tan. It just stood out as being healthy. It has that whole connotation of holidays, leisure and good times and healthy living.” (Male, skin cancer removed, 50+ years, Melbourne)

“What guys want, and what other girls want, is a tan.” (Female, 18-24 years, Adelaide)

“Ego. The look. Suntan does, in most people’s opinion and possibly mine, promote a better looking person.” (Male, skin cancer removed, 50+years, Coffs Harbour)

“That’s what we’re brought up with – the bronzed Aussie.” (Male, 50+ years, Brisbane)

“You certainly look more attractive. You certainly look more interesting with a tan rather than being pale and uninteresting.” (Female, 50+ years, Coffs Harbour)

“Beach holiday and outside job.” (Male, 50+ years, Brisbane)

“You just don’t want really white skin, so long as they’ve got some sort of tan.” (Male, Year 9-10, Melbourne)

“That’s right... pasty looks sickly.” (Female, 50+ years, Sydney)

“I find it very attractive on girls, particularly their legs.” (Male, 18-24, Sydney)

“What do I associate with a tan? Hot chicks!” (Male, 18-24, Mt Gambier)

“It’s part of the healthy image (which I know it’s not).” (Female, 50+ years, Brisbane)

“It is nice to have a tan.” (Female, 50+ years, Sydney)

There are a number of underlying health and lifestyle associations which influence the idea that brown skin is more appealing than pale skin. At the most basic level, tanned skin is in stark contrast to the paleness associated with sickness and death. Thus, pale skin was more likely to be described as “colourless”, “pasty”, “sickly”, “sallow”, “faint”, “feeble” and “weak”. White skin was also on occasion referred to pejoratively as “albino” skin. Tanned skin, on the other hand, was described as “bronzed”, “glowing”, or even more exotically as “olive”, “chocolate” or “coffee”.

“I guess it kind of looks healthy if you have a nice glow to your skin.” (Male, 18-24 years, Sydney)

“Being bronzed and beautiful and sexy.” (Female, 18-24 years, Adelaide)

“It looks good. I’d kill to have one. Sick of being an albino.” (Male, Yr 11-12, Bendigo.)

Tanned people were often assumed to lead a fitter, more active, or more leisurely “outdoor” lifestyle. Whether through outdoor work (which has its own connotations of hardiness, endurance and fitness), sporting activities, or the experience of holiday-makers, tanning is directly linked to situations, activities and lifestyles that are approved of, admired, or envied. Hence, a tan was seen as a marker of a healthy outdoor lifestyle. This was tied to the image of the “bronzed Aussie” who embraces the “great outdoors” in this “sunburnt country”.

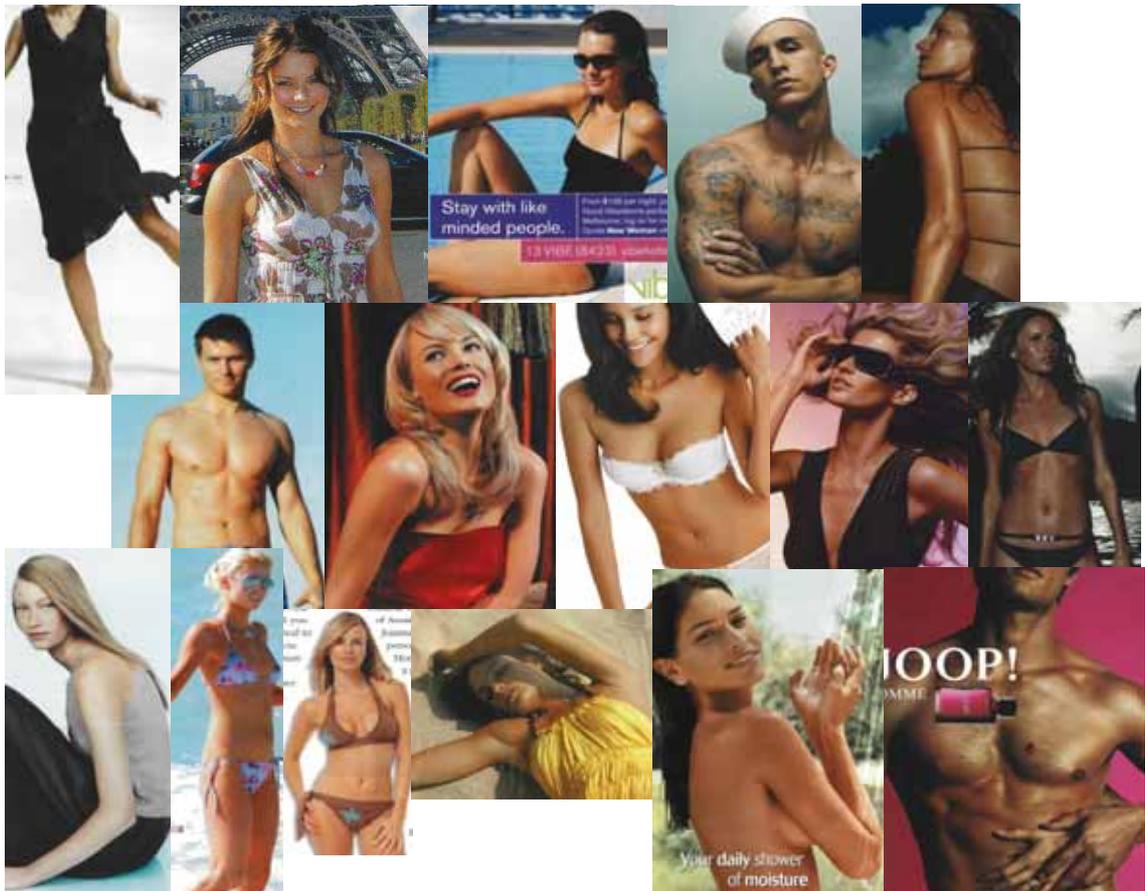
“It’s part of the Australian image.” (Male, 18-24 years, Sydney)

Tanned skin was also said to make someone look slimmer, hide blemishes and to improve the appearance of freckles, scars, or other imperfections. “Feeling good” was another benefit of tanning, often linked to lifestyle and context.

“When you are browner, I think that you look skinnier.” (Female, Yr 9-10, Bendigo)

“Being happy in the sun. You generally feel better with a suntan.” (Female, 18-24 years, Adelaide)

To gain a better understanding of what participants thought was an attractive level of tan, and what level of tan was considered dangerous, magazine images featuring a range of skin tones were used to facilitate discussion. Participants were asked to concentrate as far as possible on the skin tone in these images, rather than on other physical characteristics, such as body type or clothing, or on the identity of the model or celebrity depicted. Some of the more commonly preferred images are illustrated on the following page.



Preferences differed, but most participants liked at least some level of tan. There were differences in what was considered to be “tanned”. For example, the skin of the woman in the white lingerie (pictured above) was often described as “pretty fair”, while others felt that it was

“moderately tanned”. Overall, skin colour emerged as just one of a number of characteristics (including body type, clothing, pose and attitude) that contribute to the beauty of a person. A suntan, while an inherently desirable characteristic, was not universally thought to be a necessary one.

“I mean, someone from Italy with natural olive skin, that’s attractive. But then you see someone from Norway who’s got very white skin – when they do tan, they tan beautifully, of course – but they look nice too.” (Female, 50+ years, Sydney)

“Some actors have porcelain skin – Reese Witherspoon, Nicole Kidman – and they look great.” (Female, 18-24 years, Adelaide)

Given the number of advantages that tans were seen to offer, it was not surprising that several participants reported that they actively sought a tan. Although tans were considered to be desirable across all age bands in this study, teenagers and young adults were somewhat more likely than older participants to report actively seeking a tan over recent months. This finding is consistent with quantitative findings of the recent National Sun Survey conducted by the Cancer Council Victoria.¹⁷

The most common view was that a tan gained via incidental exposure was a bonus, but one would not necessarily try to tan deliberately. A few (particularly those who noted that their pale skin would burn rather than tan) were averse to the idea of tanning and more likely to avoid sun exposure assiduously. These views are expressed in the following quotations.

“I look forward to getting a suntan each year, with caution.” (Male, 50+ years, Coffs Harbour)

“But most of my friends think it’s not important to get tanned now.” (Female, 18-24 years, Adelaide)

“If I get one, I get one. I wouldn’t deliberately go out and get a tan.” (Male, Yr 11-12, Brisbane)

“I think it can’t be avoided in Townsville.” (Female, 18-24 years, Townsville)

¹⁷ (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.

This was partly driven by a view that society has changed its attitudes and was now more conscious of the long-term effects of the sun. It was commonly noted that social attitudes about tanning have changed with increased knowledge of the risks of sun exposure.

“In the past, people used to use oil because no-one knew the effects of skin damage.” (Female, 18-24 years, Adelaide)

There were also some negative connotations associated with tans, including both aesthetic concerns and health risks. However, these were not normally as salient as the benefits, and were more likely to be associated with very dark, or “extreme” tans. These negative associations with tanning were slightly more likely to be mentioned by older participants, yet younger participants often made reference to these as well.

“[A tan is] not necessary as far as I’m concerned. Leathery skin; a whole lot of effort that just isn’t necessary; skin cancer and melanoma.” (Female, 50+ years, Brisbane)

“But you also think about leathery skin and melanomas: it’s not the first thought, but it does come through.” (Female, 18-24 years, Adelaide)

“Nice brown skin when young, but can be very dangerous later in life.” (Male, Parent - eldest 2-5 years, Melbourne)

“Whenever you are that tanned it is not healthy.” (Male, Yr 11-12, Brisbane)

“Reminds me of that woman out of *Something About Mary*. That’s what I think of when I see someone about 30 or 40 with a really deep tan.” (Male, 18-24 years, Sydney)

Health risks of tanning

When asked to assess the safety of various levels of tan, emphasis was given to people’s “natural colouring”. This was usually understood to be the colour to which someone would tan if they spent minimal time in the sun.

Although very dark tans were seen to be unhealthy, many found them attractive and few participants believed there were risks associated with a light to moderate tan.

“A tan is healthy if light. Leathery skin is overrated.” (Male, 50+ years, Coffs Harbour)

“It’s not brown enough to be a health problem.” (Male, 18-24 years, Sydney)

How a tan was acquired also seemed to influence perceptions of its safety. In this way, a tan acquired through incidental exposure was more likely to be seen as “natural”, “healthy” and “acceptable”, whereas “baking” in the sun was less likely to be seen as safe and often described as “stupid”.

“I think if you just get a tan naturally, that’s fine. But not if you’re always outside baby-oiling yourself up.” (Male, Year 11-12, Bendigo)

Similarly, a light to moderate tan acquired without burning was generally thought to be safe, as illustrated by the following quotes.

“It’s better than getting it all at once.” (Male, Yr 11-12, Brisbane)

“It’s only a little bit of sun per day.” (Male, Yr 11-12, Brisbane)

“If you are regularly exposed, say every month having a bad burn, I would say that would be worse than sunlight everyday for 10 minutes.” (Female, 18-24 years, Townsville)

There was a widespread belief that a tan actually provides additional protection from the sun, as illustrated by the following quotes.

“Because we’ve always put sunblock on our children, if we forget once, they burn really badly.” (Female, Parent - eldest 2-5 years Melbourne)

“Yeah I agree, once you build up a tan, you don’t need sunscreen, you have built up your tolerance to the sun.” (Male, 18-24 years, Sydney)

“I sort of don’t block out because I feel that you should have a certain amount of resistance to the sun. And I feel if you do rely on block out, and then when you do forget the block out, that’s when you’re really going to get burnt.” (Male, skin cancer removed, 50+ years, Coffs Harbour)

“I think it is just getting burnt [that causes cancer], because I’ve known quite a number of people who’ve basically spent their lives in the sun, working constantly, and their skin’s like leather. And possibly because they’ve spent so much time in the sun, their skin has built up a resistance or a dead layer on top that reflects... they don’t burn anymore.” (Female, Parent - eldest 2-5 years, Townsville)

“I think, within limits, [a tan is] the body’s natural defence against the sun, so you do have to have a bit.” (Male, 50+, Brisbane)

Fake tans and solariums

There were mixed views about spray or other artificial tans that did not require sun exposure. From a purely aesthetic point of view, they were often seen to be less appealing than a suntan, because the colour might look unnatural or “orange”, or some parts of the skin might look more uniformly darker than they would had they been exposed to the sun (e.g. the tonal difference between the outside and inside of the arm). Indeed, when assessing the magazine images, those tans which were thought to be “fake tans” were seen as less desirable.

“The really bronze one looks like she’s gone and got a fake tan, whereas that one looks natural.” (Male, Yr 11-12, Brisbane)

In some cases, “fake tans” were looked down on, and seen as a sign of “vanity”. Like “fake” watches, “fake” breasts and “fake” smiles, “fake” tans were sometimes viewed with suspicion.

Obviously “fake” tans were described as “tacky” and “tasteless”. That said, artificial tans were often thought to be a sensible way to achieve the aesthetic benefits of a tan without the dangers associated with sun exposure. 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 to be applied for parties, going out, and special events such as school formals and weddings.

“A tanning product is just like makeup, just add it to your skin two or three times before the event that you’re going off to.” (Female, 50+ years, Mt Gambier)

Participants were asked about the relative safety of tanning in a solarium and tanning outdoors. There were differences of opinion, with some believing a solarium to be safer because the

conditions are controlled. Particularly among those who had used them, solariums were seen to have a number of advantages, including:

- achieving an all-over tan (i.e. no “unattractive” tan lines)
- acquiring a tan at any time of year
- being a relatively quick and accessible method
- not needing to expose one’s untanned body in public to acquire a tan
- a more natural method than spray tans
- a relaxing process

Some of these perceived benefits are illustrated in the following quotes.

“People use it for a natural tan, more natural than a spray tan. They also use it in winter. My sister (who loves tanning) says that it’s a safer way to expose yourself to UV radiation in a controlled environment.” (Female, 18-24 years, Adelaide)

“The whole point of getting a tan is so that everyone can see your tan, not see you getting a tan. You’re supposed to just be tanned.” (Male, Year 11-12, Bendigo)

“If you go in August, you can develop a nice tan before summer.” (Male, 18-24 years, Sydney)

Most participants, however, appeared to hold negative attitudes towards solariums. Many thought solarium tanning was unsafe because of the intensity and concentration of UV exposure. Tanning in a solarium was also seen as “paying for sunlight”, and was thought to be a “boring” activity carried out indoors and in isolation.

4.3 Knowledge of risks

Skin cancer All participants had heard of skin cancer, and there was a universal understanding that it was caused by the sun. “Skin cancer” is the term used most often and most readily understood, although some participants referred to skin cancer as “sun cancer”, reflecting the perceived connection between cause and effect.

Some, particularly those who had had a skin cancer removed, knew that there are different types of skin cancer, with “melanomas” the most frequently mentioned. “Carcinomas” were also mentioned, although there did not appear to be widespread understanding of what a carcinoma was. “Malignant” and “benign” were widely understood terms, even though some participants struggled to remember them without prompting. The terms “basal cell carcinoma” and “squamous cell carcinoma” were occasionally recognised, but were rarely used and poorly understood. Among those who were aware that there are different types of skin cancer, many understood that some types are worse than others and that some cases are worse than others.

Participants generally knew that skin cancer, if left untreated, can lead to death. This fact did not always appear to be fully appreciated by those who had not experienced the death of a family member, friend, colleague or acquaintance. Despite knowing that skin cancer can be fatal, participants usually spoke of it as a visible, superficial and treatable condition. These widely-held views are illustrated by the following quotes.

“I don’t worry about it. I think they’ve got so much technology that, it’s like, easy. There’s plastic surgery ...” (Female, Year 11-12, Coffs Harbour)

“I suppose if it’s skin cancer you can see it, so you know it’s not getting any bigger or smaller.” (Male, Year 9-10, Melbourne)

“These days we have a cosmetic availability where you get blemishes like that taken off your skin.” (Male, skin cancer removed, 50+ years, Melbourne)

“Pretty severe ... it’s cancer. But you don’t worry about it, ’cause it’s just like a little dot on your skin that you can go and get cut out.” (Female, Year 11-12, Coffs Harbour)

“I think my mum’s had quite a few skin cancers – thirty or something – and apparently they just cut them out. So, to me, I don’t really think of it as such a bad thing.” (Male, Year 9-10, Melbourne)

“With some of them, you can cut them out and it’s gone.” (Female, 50+ years, Sydney)

People often overestimated the mortality rates associated with skin cancer in Australia. As can be seen from the following quotes, these were often gross overestimates

“I think 50,000 die in Australia from skin cancer [per annum].” (Male, 18-24 years, Sydney)

“I’d say 20,000.” (Male, 18-24 years, Sydney)

Where participants were advised of the actual mortality rates associated with skin cancer, this served to reduce their perceptions of its severity.

Skin cancer was seen as less mysterious and insidious than internal cancer. Indeed, other illnesses, and other types of cancers, were often seen to be less preventable, detectable, and treatable.

“People don’t really think of the skin as a vital organ.” (Male, Yr 9-10, Melbourne)

“Maybe because it seems superficial, literally. It’s on your skin. You’ve got all sorts of things on your skin, especially as you get older. It’s a little bit superficial compared to breast cancer.” (Female, 50+ years, Coffs Harbour)

“You worry more about getting cancer in your organs, where you don’t know what’s causing it, and so you don’t know how to prevent it.” (Female, Yr 11-12, Coffs Harbour)

“That’s why I feel more comfortable about skin cancer than other cancers, because you can detect it before it spreads. But you can’t detect other cancers.” (Male, 18-24 years, Sydney)

“It’s not making you sick, is it? It’s not affecting your life.” (Male, 50+ years, Coffs Harbour)

People who had had a skin cancer removed were generally less likely to hold this view, with the occasional exception. This attitude appeared to be driven to some extent by perceptions that greater effort and expenditure are invested to combat other types of cancer (especially breast and cervical cancer). In turn, this implies that these cancers are more important.

“I don’t think skin cancer is that big in Australia, whereas breast cancer is – with all the ads about how to check.” (Female, Year 9-10, Bendigo)

Participants usually talked about “a skin cancer”, or “a sun cancer”. This reflected their perceptions of skin cancer as a lesion, rather than as a condition. Similarly, when asked what

they thought it would be like to live with skin cancer, this was a concept that they had not really considered.

There was some recognition that the visible component of a skin cancer represented only a small part of the full tumour. As the following quote illustrates, information about how large the non-visible part of the tumour could be was regarded as novel and reasonably surprising.

“I saw a program and the cancer on the top wasn’t that bad, but underneath it was massive. It’s what’s underneath. The top isn’t really an indication.” (Male, Parent - eldest 2-5 years, Townsville)

Thus, few seemed to have given much thought to how large the non-visible part of the tumour might be. There seemed to be general agreement that if the visible part of a melanoma was “the size of a five cent piece”, one’s life would be in grave danger. But participants lacked a sense of how large a skin cancer would be a cause for concern. This has implications for how motivated people are to take action to have suspicious-looking moles, lumps or scaly patches examined.

There was some mention that melanoma can be an aggressive cancer.

“There are different types. Some take time but melanoma’s usually pretty quick.” (Male, Yr 11-12, Brisbane)

“Unless they get it straight away, you don’t have a hope in hell of getting saved.” (Male, 50+, Sydney)

Several participants demonstrated an understanding of the phenomenon of metastasis. They did not use this terminology, but mentioned the potential for skin cancer to spread to other parts of the body.

“If you get it early, there’s a better chance. It can spread and kill you.” (Male, Yr 11-12, Brisbane)

“Yeah, if it’s not moving through your body so they can, like, operate on it.” (Female, Yr 11-12, Coffs Harbour)

There were some misconceptions about metastasis, with some suggesting that the likelihood of spreading to other organs depended on where the original tumour was on the skin. Tumours

that were more distant from vital organs, such as on the lower limbs, were thought to represent less of a risk than other tumours.

Although there was reasonable awareness of the potential for skin cancer to spread, many do not think about treatment (or recurrence) beyond the initial removal.

Risk factors for skin cancer There was widespread awareness that family history and genetics increase one's risk of skin cancer. Those who had a family history of skin cancer usually felt that they had an increased risk of getting skin cancer later in life. Conversely, there were a few who felt that their olive skin and the absence of skin cancer in the family meant they were extremely unlikely to develop skin cancer.

“Being Sicilian, and of all the older Sicilians I know, I don't know one that's had skin cancer. And I'm of the same generation, we used to sunburn and get blisters and everything, but that's one thing that's just never worried me.” (Female, 50+ years, Sydney)

“No, if I know I'm going to be out in the sun for a while, there's a couple of moles I'll put some sunscreen on. I might go red for a couple of hours and then I'll just go brown. My granddad's mum is Spanish, so I don't know if that helps.” (Male Parent - eldest 2-5 years, Townsville)

Skin type was often seen to affect one's chances of developing skin cancer, with fairer skinned and/or people with freckles or moles thought to be more at risk.

Many of those who had had a skin cancer removed felt they were likely to have more removed in the future. However, those who had had a non-melanoma skin cancer removed did not necessarily believe they had a greater risk of further cancers than other people of their age.

Most participants accepted that total sun exposure does influence one's risk of skin cancer. However, it was clear that frequent and severe sunburn was much more salient as a risk factor.

Researcher: “How likely do you think it is that you will develop skin cancer at some time?”
Participant: “I do a lot of sports, but I hardly ever get sunburnt.” (Male, Yr 11-12, Brisbane)

In general, small yet regular doses of unprotected exposure were seen as acceptable and unlikely to increase one's chances of skin cancer. Indeed, as mentioned above, some felt that this type of exposure could actually protect against harm.

Sunburn Consistent with the fact that sunburn is prominent in people's minds as a risk factor for skin cancer, the frequency and severity of sunburn is normally used as a yardstick for skin damage. When asked what would be an acceptable length of time to stay in the sun, and how long it would take for damage to start to occur, nearly all participants drew the line at "burning", taking obvious physical signs such as redness and pain to be a sure sign of too much time spent outdoors. This is illustrated in the following quotes.

"When you start burning." (Male, Yr 11-12, Brisbane)

"I think it's when you start to feel it stinging on your skin. Like, when you know that it's reaching you." (Female, Yr 11-12, Coffs Harbour.)

"When you get red." (Male, Yr 11-12, Brisbane)

"My understanding is that repeated sunburn when you're younger is somehow correlated to skin cancer when you're older." (Male, skin cancer removed, 50+ years, Melbourne)

Facilitator: Would it be something that you'd need, for example, ten years for it to do damage?
Respondent: "It could depend on the person. Some people are more susceptible to the sun. As a kid, I could spend all day on the beach in the sun and not get burnt." (Female, 50+ years, Brisbane) "It wasn't until my partner came up and said, "Oh my God, look at your back!". (Female, 50+ years, Brisbane)

There does appear, however, to be a deficit in knowledge about when sunburn actually happens. Participants often did not regard the following things as constituting sunburn:

- being a "bit pink"
- burning without peeling
- reddening of the skin that does not last very long
- heat in the skin later that night (particularly among those with darker skins)

“You get a different tan in Europe. I think it’s redder here, it’s a deeper brown over there.” (Female, Parent - eldest 2-5 years, Melbourne)

“I don’t really get burnt. Like, I don’t go really, really red. I might go a bit pink on my face. But I don’t get really burnt. Like, it will go away (by tonight, probably)... I don’t stay burnt.” (Female, Yr 11-12, Coffs Harbour).

Many felt that it was easier to get sunburnt in Australia than other countries. The Australian sun was often said to be “stronger”, “harsher”, “hotter” and “more penetrating”. Some described it as having “a sting”.

“Australia’s almost unique in the penetration of the sun here. You can really feel it on your skin if you’ve been out for five minutes.” (Female, Parent - eldest 2-5 years, Melbourne)

When asked how often they would get sunburnt, most reported being burnt at least once or twice a year. This was generally seen to be normal, and not thought to be a real cause for concern. It is difficult to draw firm conclusions from a qualitative sample regarding differences between age bands on questions such as the precise frequency of burning, as this research was not designed to focus on detailed behavioural measurement. However, it did seem that older participants were a little more likely to report that they had not been burnt as often as that in recent years. Conversely, teenagers appeared to report higher sunburn frequency relative to older age groups. Similar findings were reported in the National Sun Survey¹⁸

As the research was conducted in summer, many participants had been burnt recently (including earlier in the day of the interview or group discussion). This seemed particularly the case among teenage participants and young adults.

There were a few participants from different age groups who reported very high burning frequency, such as up to 30 times a year, or every time they went swimming. These individuals

¹⁸ (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.

did not seem particularly motivated to change their behaviour. Yet it should be emphasised that they were very much in the minority.

There were some reports of extreme episodes of sunburn, as illustrated by the following quotes.

“I forgot to reapply sunscreen after the first application. When I got home that night I was really, really burnt and I couldn’t continue working, and had to go to hospital for pain relief. I was in the burns unit for three days.” (Female, 18-24 years, Adelaide)

“I knew someone who fell asleep on a beach, and was burnt like a lobster. He had to have 2 weeks off work.” (Female, 18-24 years, Adelaide)

The areas of the body said to burn most frequently included the face (particularly the nose), shoulders, neck and chest, tops of arms and legs, and the back of legs. A range of remedies appear to be used for managing the pain of sunburn, including moisturisers, aloe vera and cold showers.

Aesthetic and other perceived risks

A number of aesthetic risks were associated with sun exposure:

- Premature ageing, wrinkling or having a leathery skin were frequently mentioned. In general, these risks were seen to result only from significant exposure to the sun. Interestingly, females were more likely to mention wrinkles, while males were more likely to talk about leathery skin.
- Sun spots (although there was often confusion about what a “sun spot” was)
- Freckles
- Looking red, peeling and blistering as a result of sunburn

A few participants mentioned the potential risk for eye damage or specifically cataracts as a result of sun exposure. Dehydration and sunstroke were also seen as short-term risks associated with very long periods of time spent in the sun.

UV

Most appear familiar with the terms “UV” and “ultra violet”. A few participants had a sophisticated understanding of UV. Many had very limited knowledge, but nevertheless understood UV to be harmful.

“Penetration of the skin from the sun.” (Male, Parent - eldest 2-5 years, Melbourne)

A few thought that UV dried out the skin, as illustrated in the following quote:

“The rays that are absorbed by our skin which can cause dryness of the skin.”
(Male, Yr 11-12, Brisbane)

Few participants mentioned UVA and UVB, or understood the difference between them, although there was some recognition of the need for broad-spectrum protection.

Participants were asked whether they had seen the UV index on weather reports. Despite moderate awareness, most said that they did not understand how the index was arrived at and what difference there was between points on the scale. The information did not seem to influence actual sun protection decisions: seasonal variations in UV levels were thought to be a more important guide to sun protection behaviour than day-to-day variations, which were assumed to be minor throughout a given season. Moreover, the UV index always seemed to be high and did not change much, so it was often not seen as conveying anything other than a reminder to take care.

“It’s not something I remember the next day.” (Male, 18-24 years, Sydney)

Consideration of cloudy conditions made some participants think more in terms of UV exposure than exposure to direct sunlight, as some believed that UV rays were able to penetrate clouds. Most participants realise that one can still burn on cloudy days. Even so, many assume that the risk is lower if overcast. There are others, a minority, who believe that one is more likely to be burnt when it is cloudy, citing reflection or other arguments for this belief.

“It depends on how cloudy it is. If it’s really cloudy the ultra violet rays won’t really come through but, if it’s semi-cloudy, it’s worse because they can’t get back out.”
(Male, Yr 11-12, Brisbane)

Many participants mentioned that it is possible to get burnt through glass. This knowledge was often learnt from experience in cars, with several participants mentioning “driver’s arm”, noting that their right arm was often darker than the left.

4.4 Sun protection strategies and behaviours

Current sun protection behaviours were explored during the discussions, as well as views on when sun protection was thought to be necessary or unnecessary. Heat was often used to guide decisions about the necessity of sun protection. Accordingly, lower temperatures, cooling breezes, lower humidity, morning time and the winter or dry season were normally taken to indicate a lower risk of damage.

“In the hottest part of the day [I put sunscreen on].” (Male, Yr 11-12, Brisbane)

“Only if there’s heaps and heaps of sun – if you can actually step out the back and feel it.” (Male, Yr 11-12, Bendigo)

“I mainly block out if I’m really hot, working on a reflective concrete floor and you can feel the heat coming back and burning you.” (Male, skin cancer removed, 50+ years, Coffs Harbour)

“But I usually associate UV with temperature, so when it is 25 and sunny you don’t think there will be as much UV as at 38 and sunny. I wouldn’t really remember the UV index level when it is a cool day in the morning.” (Female, 18-24 years, Adelaide)

Participants were less likely to perceive a need for sun protection when the sky was cloudy, since this often meant that the day was likely to feel cooler than a sunny day.

Unprotected exposure was normally associated with unplanned outdoor activity or situations where one stayed outdoors longer than was expected, as the following example suggests.

“Well, like if you go to a mate’s house and you didn’t think you would go for a swim but you end up going and you didn’t bring sun cream with you.” (Male, Yr 11-12, Brisbane)

For all age groups, the pattern of protective behaviours adopted seemed to vary with the context. The need for sun protection was much more likely to be top of mind when

participants were near water (that is, at the beach or pool, or on a boat), wearing swimwear (that is, having a greater proportion of skin exposed) or playing sport. A combination of protective measures was most likely to be undertaken when at the beach or pool. However, there was some evidence that teenage males were not as concerned as other segments of the community about sun protection when playing sport, despite being highly likely to engage in such activities.

“If it’s footy or something, you think you’re moving around too much [to get burnt].” (Male, Yr 9-10, Melbourne)

Other common outdoor settings or activities, including outdoor shopping strips and markets, were often forgotten, as noted below.

“If I’m shopping in Paddington, even if it’s a 35 degree day, I wouldn’t wear sunscreen.” (Female, 18-24 years, Sydney)

Some people were disinclined to protect themselves in certain contexts, including formal outdoor occasions, as the following person mentioned.

“When you are at a wedding and don’t want to be unfashionable, or ruin your makeup.” (Female, 18-24 years, Adelaide)

There was a widespread belief that generational change had occurred in terms of people’s understanding, attitudes and behaviour regarding sun protection. Many participants relayed stories of their own childhood, or the experiences of previous generations, drawing attention to the marked improvements in sun protection behaviours.

“I can remember when I was a kid we used to go to the beach regularly and my sister who’s got red hair used to have blisters on her shoulders she’d get burnt so much. But that was it. You got burnt, you peeled, you went pale for a couple of days and then you went back to the beach two weeks later.” (Male, 50+ years, Sydney)

Generally speaking, people felt that they were making some effort to look after their skin and did not consider their current behaviour to be particularly poor. Nonetheless, many thought

they could probably do more to protect themselves (and their children) from the dangers of sun exposure. For example, few reported using the most effective combination of protective measures (that is, an appropriate hat, correctly applies sunscreen, use of shade and protective clothing). There was a tendency to rely on single measures.

The research included a discussion of various sun protection strategies, including relative advantages and disadvantages, and cues or triggers for adopting certain protective behaviours. These are discussed under the following headings.

Sunscreen Sunscreen was probably the most widely mentioned measure, with the terms “sun block” and “block out” also being used. Most people realised that one could still get burnt, even while wearing sunscreen, especially if they used the sunscreen terminology (i.e. the analogy with a screen rather than a barrier). Even so, there is still a tendency for many people to rely on sunscreen as a single protective measure, as in the cases below.

“Well I just put on sunscreen and it doesn’t really worry me.” (Male, Yr 11-12, Brisbane)

“Well you put cream on, but apart from that you don’t really think about it.” (Male, Yr 9-10, Melbourne)

“I tend to rely on one thing. I won’t put on a hat if I have sunscreen on.” (Female, Yr 9-10, Bendigo)

Sunscreen has the benefit of not impinging on fashion, whereas wearing a hat or long sleeved clothing could potentially be unfashionable. Many people held the view that women were more likely than men to use sunscreen, primarily because they were seen as more likely to want to avoid restricting their choice of clothing and disrupting their hair with a hat. Women were also perceived to be more open to using sunscreen, given that they were more accustomed to using lotions. The following quotations illustrate these points.

“Girls go down to the beach and ask their friend to put sunscreen on their back. Like a guy is going to go, ‘Hey, can you put sunscreen on my back?’ Yeah, ‘Lotion me up!’” (Female, Yr 11-12, Coffs Harbour)

“I think women make skin care a prime concern for them. They think of it as an ageing thing and they want to protect themselves. I think they tend to use more sunscreen, and daily moisturisers with UV protection.” (Male, 18-24 years, Sydney)

“I watch TV a lot and on shows and ads there’s always girls rubbing sunscreen on themselves. Maybe it’s stereotypical but I think they might be used to doing it more.” (Male, Yr 11-12, Brisbane)

“I think the guys think it’s girly to wear sunscreen – like looking after yourself is a girl thing. They might get teased for being gay.” (Female, Yr 9-10, Bendigo)

Yet participants were able to highlight some disadvantages of sunscreen. Some felt that sunscreen was inconvenient to use, expensive and easy to lose. Others argued that sunscreen could be difficult to apply and made their skin feel and look oily, with some (particularly teenage and young adult participants) raising concerns about acne. As one person stated:

“You don’t put it on when you are not at the beach because it’s smelly, greasy, clogs your pores.” (Male, 18-24 years, Sydney)

In addition, many agreed that some parts of the body tended to get forgotten or accidentally missed during sunscreen application or reapplication. Common examples included:

- “hard to reach places”, such as the back;
- “out of sight” areas, such as the ears or back of the neck;
- areas adjacent to one’s clothing, swimming costume and so on (particularly the upper thigh); and
- the feet, particularly when they were sandy.

Concern regarding the chemicals used in sunscreen was a barrier for a few participants, as indicated below. However, these views were in the minority.

“Well, those chemicals, which you can’t even pronounce the names of, enter your bloodstream. Your skin is not like a plastic bag. The chemicals go into your bloodstream and circulate around your whole body. And a lot of those chemicals

haven't been tested thoroughly. They're using us like guinea pigs." (Male, 50+ years, Coffs Harbour)

"People are continually concerned about what's in sunblock." (Female, Parent - school aged children, Mt Gambier)

"I have a girlfriend who's a naturopath, and she won't wear sunscreens either. She says it's soaking into your skin." (Female, 50+ years, Coffs Harbour)

In general, people demonstrated good knowledge of correct sunscreen use, although they admitted that they did not always fully adhere to these principles. There was strong understanding of the necessity for reapplication after a couple of hours had lapsed, or after swimming (although this was not always practiced). Yet awareness of the need and rationale for pre-sun application was not universal and this was often seen as too much hassle (for example, greasy skin rubbing against car seats or applying sunscreen then having it rub off on one's clothes on the way to the beach). The following quotations highlight some common viewpoints.

"If I am at the beach, I just get it out when I am already on the beach, so I might have been there a while." (Male, Yr 11-12, Brisbane)

"It takes 20 minutes before it's effective. I don't believe it. Why would it take 20 minutes?" (Male, 18-24 years, Sydney)

Most people reported rubbing the sunscreen in until it was all absorbed, although a few reported just "slapping it on" or, as a few described it, "lathering it on". Generally, sunscreen was thought to represent adequate protection on its own, provided it was applied liberally and regularly. There was some awareness of expiry dates for sunscreen and the need to check these, but this was not a salient issue for most. People tended to know that a higher SPF means better protection and "sun protection factor", but few really understood what SPF actually meant.

Hat and protective clothing

Although hats were worn on a regular basis by younger children, teenagers (particularly females) reported seldom wearing hats. Those who did wear hats tended to wear caps or hats with relatively narrow brims,

often worn for fashion reasons rather than sun protection. As noted below, it appears that few secondary schools had rules relating to hats¹⁹, particularly for wearing hats within the school grounds for protective reasons rather than as part of the school uniform when outside the school grounds.

“My school, no one wears hats at all. There’s like three people that wear a hat. But they’re odd people.” (Male, Yr 11-12, Brisbane)

Long sleeves and pants were generally seen as impractical and uncomfortable in hotter weather. In addition, it was often considered uncool or unfashionable to wear such clothing when it was warm. Sunglasses were widely used, particularly among adults, although this was mainly for short-term reasons such as glare reduction, and sometimes fashion reasons.

Shade and reducing exposure

There was high awareness of shade as a sun protection measure, although it seems to be less salient and was less often utilized than other measures.

Shade was usually seen as insufficient on its own, particularly the shade of a tree which often produced “dappled” light. Some were also conscious of reflected rays. Shade was often unavailable in those locations where it was considered most needed, such as parks and the beach. Yet others felt that shade was less desirable and less practical than other protective measures, partly because it was seen as restricting the size of the area where one could sit or engage in outdoor activities. Shade was most likely to be used when temperatures were high, as people often used shade to cool down rather than protect their skin.

Reducing the time spent outdoors and avoiding exposure during the middle of the day was seen as an effective way of protecting one’s skin, but it was not always considered to be practical. Some people were concerned that such measures may be taken to the extreme and people were reluctant to resign themselves to a life indoors.

4.5 Protecting oneself from sun exposure

Motivators

Avoiding sunburn is usually the key reason for protecting one’s skin from sun exposure. A common point of view is captured by the following

¹⁹ Although hats were mandatory in Townsville.

quote:

“For me, it’s more about preventing getting sunburn than cancer.” (Male, 18-24 years, Sydney)

There were several reasons why people wanted to avoid sunburn. The most common of these was because sunburn is painful and uncomfortable. Many were also keen to avoid sunburn because it is seen to be unattractive, particularly if associated with peeling and blistering.

“You try to prevent sunburn, because it hurts and it doesn’t look too good. British backpacker look!” (Male, 18-24 years, Sydney)

“When it starts to peel on your face – that’s just nasty. I wouldn’t be walking down the street. I’d be in my room.” (Male, Year 11-12, Bendigo)

“I hate it when your nose peels and then you try and put foundation on.” (Female, Yr 11-12, Coffs Harbour)

Another reason why people wished to avoid sunburn was that it makes one look stupid, for having inflicted pain on themselves, and irresponsible in relation to the potential risk of skin cancer.

“You feel irresponsible. You should have put the sunscreen on.” (Female, 50+ years, Coffs Harbour)

When one does get sunburnt, this often seems to create greater diligence for a while. As one participant said:

“And then you make sure it’s not going to happen again for a long time, because you’re so aware of the dangers. Getting burnt once a summer is enough to make sure you go and get more cream next time.” (Male, 50+ years, Coffs Harbour)

The aesthetic consequences of sun exposure were an important motivator for some. As mentioned above, sunburn, peeling and blistering were viewed as having negative consequences for one’s appearance in the short term. Avoiding the longer term aesthetic consequences of sun exposure, such as premature ageing, wrinkling, or dry, leathery skin, was particularly important

for many females and for those who were starting to notice the signs of ageing. This point is illustrated by the following quotes.

“To stop leathery skin. It’s the worst look ever, when you are 40.” (Male, 18-24 years, Sydney)

“If somebody goes, ‘I’m going down to the beach, I’m going to sunbake all day.’ It will be something that a lot of my girlfriends will bring up, going ‘Why are you doing it to your skin? In 20 years, you’re going to look like a handbag, an old leather handbag.’” (Female, 18-24 years, Sydney)

“Even if you don’t get cancer... when you’re older, just really gross leathery skin.” (Male, Year 9-10, Melbourne)

“I know I’m going to get wrinkly no matter what, but I don’t want to get wrinkly, like, really young.” (Female, Yr 11-12, Coffs Harbour)

“If I see someone who is really tanned and beginning to look quite old, I don’t associate that with health. I think that they look unhealthy and that they are aging prematurely.” (Female, Parent - eldest 2-5 years, Townsville)

The scarring associated with skin cancer removal is feared by some. However, some teenage boys were unconcerned by scars, and they appeared to hold a certain cache.

“Guys would be, like, ‘tough!’” (Male, Yr 11-12, Bendigo)

“It’s more a thing for girls because they don’t want scars, whereas guys are always covered in scars anyway. Tough guys in movies always have scars all over their faces.” (Male, Yr 9-10, Melbourne)

Protecting oneself from sun exposure was often motivated by avoiding skin cancer later in life. However, despite being an important motivator, it was usually secondary. This is illustrated in the following quotes.

“If I have a family, I don’t want to be dead when I’m 50. That’s why I’m starting to be more proactive when I go in the sun.” (Male, 18-24 years, Sydney)

“I guess the cancer risk doesn’t come up as much. I’m looking at it more as ‘I’m wrecking my skin’” (Female, 18-24 years, Sydney)

“You don’t really think about it like that, you know, how long I live. You just don’t want to get sunburnt – you know, red skin, and it hurts like hell.” (Male, 18-24 years, Sydney)

The risk of skin cancer is more likely to be thought about once burning actually happens, rather than at the time that appropriate precautions should be taking place.

“I think I worry about it after I get burnt. Then I’m like, “Oh no, I’m going to get cancer.” But before, you don’t really think about it as much.” (Female, Yr 11-12, Coffs Harbour)

For teenagers, avoiding reprimand from their parents can be a key motivator for adopting protective behaviours. As one participant said:

“I put sunscreen on every hour, ‘cause my mum told me if I got burnt, I was never going out again.” (Female, Yr 11-12, Coffs Harbour)

Barriers As reported in Section 4.4, most participants exhibited a high level of knowledge about sun protection strategies. However, the findings suggest that motivation and issue salience, rather than lack of knowledge, often acts as a barrier to appropriate behaviours.

“I can’t really be bothered to do anything about it.” (Male, Yr 11-12, Brisbane)

Another barrier to protecting oneself from the sun is the beliefs relating to the protective nature of suntans (reported in Section 4.2). Some report that they seek a tan to prevent sunburn, and that this avoids the hassle associated with having to protect oneself by other means.

4.6 Early detection

Another important area of investigation within this research is the issue of early detection. Most of the older participants reported having had their skin checked by a health professional, or that they check it themselves, some on a regular basis. Even some teenagers and young adults reported having a skin assessment at least annually, although this was generally more apparent in

beachside communities. Overall, younger people tended to see skin checks as something for older people. This was partly because older people were considered old enough for skin cancer to have developed and also because their generation was perceived to have been less cautious about sun protection, as suggested below.

“It’s for older people who spent a lot of time in the sun in their childhood because they didn’t know about it.” (Male, Yr 9-10, Melbourne)

“No, I think it’s something that old people check and we don’t have to.” (Female, Yr 9-10, Bendigo)

When checking their own skin, people primarily reported looking for moles that had changed colour (that is, become darker) or shape, or ones that had only recently appeared. Less often, people mentioned that you might also look out for a new lump or mark, dry or scaly patches, sore patches, or ones that bleed or don’t heal properly.

Most participants, particularly younger people, did not feel confident in their own ability to assess moles or spots on their skin. Some people, who had attempted to check their skin, explained that they did not know enough to determine what warranted visiting a health professional. A few mentioned that they had felt like a hypochondriac after rushing off to their doctor only to be told that the cause of their concern was “just a mole”. These feelings are captured by the following quotations:

“If something just appeared then I’d probably go to the doctor. If I’d had a history of it, then of course I’d go back every now and again. But until the first one I’m not just going to go to the doctor randomly and say “check me out”.” (Male, Yr 11-12, Bendigo)

“I go to the doctor and say, “What’s that?” They say, “That’s nothing, but that one there’s gotta go.” I can’t pick them.” (Male, 50+ years, Coffs Harbour)

“I don’t think I could tell the difference between a dark freckle and a melanoma.” (Female, Parent - school aged children, Sydney)

In response to this, some participants expressed interest in brochures that show examples of different types of skin cancer and what to look for when checking one’s skin. A few participants had picked up such brochures from health care centres or their GP and found them to be very

useful guides for conducting their own skin checks. However, most said that they would consult a health professional if anything looked particularly suspicious.

Motivations Various factors appeared to motivate people to monitor their skin in order to detect skin cancer during its early stages. A key motivation for checking one's skin (or having it checked by a health professional) was having a personal or family history of skin cancer or having many and/or prominent moles, primarily because such individuals felt they had an increased risk of developing skin cancer but also because it was more salient as a health issue.

“So, I do check. I get that done every year, because my grandfather has had skin cancers taken off his face. It could be in my family.” (Female, 18-24 years, Sydney)

A similar motivating factor was knowing or hearing about people who had died of skin cancer, which served to increase its salience as a health issue and make people more aware of its potential severity and the fact that it can be fatal.

Some people felt that they had been motivated by prominent screening services in the local community. For example, one participant recalled that when she had been a lifesaver they had received free checks from a mobile screening service, and she felt that this was the only reason that she had ever had her skin checked. Other participants reacted positively to the idea of mobile (especially free) screening services. Some felt that such initiatives send out a strong positive message about the importance of checking one's skin and the early detection of skin cancer, as illustrated in the quotation below.

“If they're going to all the trouble to make [skin assessments] mobile, then it's something that's a really serious thing. Like collecting blood is really serious and they've got mobile units to facilitate that.” (Female, Parent - eldest 2-5 years, Melbourne)

Recommendations by health professionals were also clearly important in encouraging people to conduct skin checks. This included situations where a GP offered to check the patient's skin, recommended a regular check-up or suggested that they conduct their own skin checks, perhaps identifying particular spots to monitor for change. Some participants had been told by a health

professional to take photos of suspicious spots to enable them to detect any changes, and others had been instructed to measure particular moles and keep a record of their dimensions. In cases where such strategies were recommended by a person with expertise in the area, participants felt that they were particularly motivated to follow through with the instructions.

Barriers A number of factors acted as potential barriers, discouraging people from taking action to check their own skin or have it checked by someone else. In many cases, skin checks were not seen as relevant, important or urgent for a given individual. This was particularly evident among younger participants or people with olive or darker skin tones. Not knowing enough about what to look for was a critical barrier for many people. The inability to detect changes in one's skin and having no clear recollection of how one's skin had appeared in the past was often a major barrier. Others were simply not in the habit of looking at certain parts of their body, and therefore any changes in these areas were likely to go unnoticed.

Some participants commented that they were prevented from checking their skin effectively because they were not able to see all parts of their body. This was particularly an issue for older people whose flexibility was decreasing. Some adults pointed out that they had to ask their partner to check the moles on their back for them, for example. Poor eyesight was another physical limitation that restricted people's ability (and motivation) to check their own skin, particularly among older participants.

In addition, some people were concerned about the limited number of skin specialists available and believed that it would be hard to get an appointment for a skin check. Moreover, some people (particularly young people) expected that it would be expensive to do so. A number of participants were embarrassed or expressed some discomfort with stripping off and being touched by a health professional. This was sometimes based on actual experience, but others simply expected that the process would be fairly invasive. The following quotations illustrate these issues:

"They actually check in your underwear. It's very invasive." (Female, Yr 11-12, Coffs Harbour)

"They offer to look in your bumcrack." (Female, 18-24 years, Townsville)

“I had a skin check a couple of weeks ago. I hate it, because you have to get down to your underwear, and then like they touch your body. I don’t like male doctors.”
(Female, Yr 11-12, Coffs Harbour)

4.7 Sources of knowledge

Participants cited various sources as contributing to their current level of knowledge regarding sun protection and skin cancer. The main information sources are outlined below:

- TV advertising was considered to be particularly prominent, having relatively wide reach and resulting in reasonable recall of sun protection messages (from both commercial and non-commercial campaigns).
- Other media channels were also considered influential and credible sources of information on this topic, including stories reported in the news or on programs such as “A Current Affair” or “Sixty Minutes”, and storylines incorporated into “Home and Away”, for example.
- The experiences of friends and family also contribute to people’s attitudes and level of understanding, and in cases where such individuals had personal experience of skin cancer they were often considered to offer a wealth of credible information.
- Magazines were also seen as sometimes conveying useful information, with some young women noticing that magazines targeting women now tend to promote positive sun protection messages (for example, positioning fake tanning as the smart alternative to tanning via sun exposure).
- Health professionals such as GPs, skin cancer specialists and pharmacists were seen to be credible sources of information about skin cancer, especially regarding detection. In addition, some participants recalled accessing information through pamphlets in doctor’s surgeries or skin cancer clinics, and from mobile screening units (e.g. the ‘Mole Patrol’ van in Coffs Harbour) and screening services (e.g. ‘Molescan’ in Queensland).
- Schools (especially primary schools) and childcare centres were seen as valuable sources of information for parents, many of whom perceived schools to be setting the standard

and influencing the behaviour of both parents and their children outside the school setting. Adolescents also considered schools to be a key source of their knowledge about skin cancer and for communicating sun protection messages.

- The surf lifesaving community was occasionally mentioned as helping to educate the broader community about appropriate sun protection measures to adopt at the beach.

Therefore, a number of sources contribute to the community's understanding of issues relating to sun protection and early detection of skin cancer. However, it appears that socially normative factors are probably just as important as knowledge levels in determining what behaviours are adopted.

4.8 Parents

The level of understanding, attitudes and behaviour of parents were sufficiently distinct from other segments to warrant more detailed coverage of those findings that were slightly different for, or unique to, parents. As noted in Section 3.2, this incorporates parents of children of a variety of age groups (from children less than 5 years of age, up to those in primary or secondary school).

Issue salience and tanning For parents, despite the fact that sun protection was clearly seen as an important part of looking after one's children, particularly young children, it was not top of mind as a health issue (as was also found across other segments of the community).

The scope of generational differences in knowledge and behaviour regarding sun protection and skin cancer was highly salient for parents, in particular. They often recalled their parents' lack of concern about sun protection during their own childhood, and commented that this was in stark contrast to the expectations, understanding and behaviour of themselves today, as parents. Many admitted that they used to sunbake in the past and often got sunburnt, and now they are concerned about their own ageing and skin cancer, and they want better for their children. Deliberate tanning was seen as something that teenagers do - thinking both of themselves as teenagers, and of today's generation of teenagers. The following quotations illustrate these issues:

“Our parents never covered us up and we sat on the beach all day long.” (Male, Parent - eldest 2-5 years, Melbourne)

“It was very trendy to have a tan when I was young. In fact, it was imperative. We used to sit around at lunchtime and bake. But if I see my children doing that now I get really cross.” (Female, Parent - school aged children, Mt Gambier)

“I’m very conscious, my son is always having long-sleeve sun shirt, hat, the whole works. And I remember when I was his age, we were naked on the beach, no one even put sunscreen on. I guess you can’t take the chance these days.” (Female, Parent - eldest 2-5 years, Townsville)

“I used to listen to the radio when I was younger when sunbaking, and every half and hour they would say “time to turn, so you don’t burn”... but now I wouldn’t let my children go out in the sun for more than 15 minutes.” (Female, Parent - eldest 2-5 years, Melbourne)

Deliberate tanning was not considered acceptable for children, but most parents felt that it was hard to prevent one’s child from developing an incidental tan.

“I think if they’re going to be outside playing they are going to get [a tan] eventually, even if they are wearing sunscreen and things like that. It doesn’t trouble me, if it doesn’t do damage.” (Female, Parent - eldest 2-5 years, Townsville)

Parents also seemed slightly more likely than other segments of the community to believe that there is ‘no safe tan’. Some pointed out that their behaviour sometimes reflects the notion that there is a safe level of tanning but that, in reality, they knew this was not the case, as the following quotation highlights.

“You think there is [a safe level of tan], but there isn’t.” (Female, Parent - eldest 2-5 years, Melbourne)

“If you’re dead set white and you go out in the sun, you’ll probably burn. If you’ve got a tan, you might just get a little bit darker. But later in life, it’s going to catch up with you.” (Male, Parent - eldest 2-5 years, Melbourne)

Parents were also inclined to believe that children, in particular, need “a bit” of sun to maintain optimal Vitamin D levels. Yet, for most, their knowledge was not extensive, as there were significant differences in estimates of exactly how much sun was required and only some

associated Vitamin D with a child's growth. Most considered it okay, or even desirable, for a child to have a "healthy glow", as the following quotations indicate. However, many also felt that young children could "get away with" having pale skin, compared with adults, who often felt that they needed a bit of a tan to look good.

"I'm not sure, I was told that my son has to be exposed to daylight to grow, because you get a lot of Vitamin D from daylight." (Female, Parent - eldest 2-5 years, Townsville)

"I'm probably a little bit 'old school'... I think a little bit of sun is good for him. I don't want him to be pasty white his entire life. Whether that's right or wrong..." (Female, Parent - eldest 2-5 years, Melbourne)

Despite being keen to protect their children, most parents felt that it was undesirable to be an overprotective or "paranoid" parent. As one mother commented, when describing someone else's child at the local park:

"You can't see an inch of his skin! I don't want to go to that extreme." (Female, Parent - eldest 2-5 years, Melbourne)

Parents were keen to avoid having to "lock the kids inside". Being overzealous regarding sun protection was seen as potentially conflicting with their desire for their children to be healthy and active, thereby enjoying the outdoors. In addition, some parents sensed a conflict between their own view that tan is attractive and their recognition of the importance of protecting their children's skin from the sun.

Sun protection behaviours Parental knowledge and use of appropriate sun protection measures for their children was relatively high compared with other segments of the community involved in this research. Some parents mentioned that sun protection aids were part of their "mental checklist" before leaving home with their children, particularly those who had younger children.

Many parents were reliant on sunscreen and hats as the combination most frequently used for protecting their children's skin. Some felt that sunscreen was adequate by itself, although the discussion had made them question this, as indicated below:

“I had the misconception that 30 plus gives you total cover.” (Female, Parent - school aged children, Sydney)

A few people commented that sunscreen can, at times, be ineffective. They gave examples of situations where they had covered their children in sunscreen but their children had still been burnt. This experience had caused them to question their reliance on sunscreen as a single measure.

Generally speaking, parents were more likely than other segments to use multiple sun protection measures on their children. In addition, some strategies were considered particularly appropriate for children. For example, many parents reported utilising shade wherever possible, particularly at parks and the beach. Yet this was often considered impractical when children are playing (especially for older children playing sport), both of which typically require a wider playing area. Other shade measures were considered useful for parents, including sunshades for prams or strollers, and shades for car windows. Rash vests were seen as effective and easier than applying sunscreen to children’s entire bodies. Some also mentioned that young children were more likely to avoid exposure during the peak UV period because of the timing of their naps.

Parents were more likely to protect their children’s skin under certain circumstances. Many of these circumstances were similar to those reported by other segments of the community. For example, parents were more likely to take precautions when it is hot, sunny, in the middle of day or during summer. Other situations associated with greater levels of protection include planned events, when parents know their children are going to be outdoors for a reasonably long period of time, and especially if the outdoor activity is occurring away from the home (for example, an outing to play at the park or a friend’s place, rather than impromptu playing in one’s own backyard). Certain locations and activities were also mentioned, including the beach or park, playing sport, swimming and being on holidays. These factors are illustrated in the following quotations.

“I always put sunscreen on them when they are going to the park, but I might not if they are just in the backyard.” (Female, Parent - eldest 2-5 years, Adelaide)

[In relation to both himself and son] “Being fair-skinned, it’s just something that you do. But when you’re not on holidays, or it’s overcast, and you might just be going for a

walk down to the shops, you don't think "oh, I'll put sunscreen on". (Male, Parent - eldest 2-5 years, Melbourne)

In addition to those factors mentioned above, parents were also more likely to protect their children's skin from the sun when it was mandatory (for example, where required by schools or childcare), where there will be other parents, and in situations when their children expect it and are being co-operative.

Most parents felt that they were doing a good job, but most believed there was scope for them to improve their practices. The main areas in which participants felt that they could do better were adopting protective measures when the weather was cool or cloudy, possibly even in winter and on short local trips. Reapplying sunscreen regularly was another area where parents sometimes felt they were a little "slack" and that could make a difference to the effectiveness of their existing sun protection practices. Further, many parents noted that they could improve by doing more to protect their own skin. Issues relating to modelling positive behaviours are discussed later in this section.

Sun protection drivers Almost all parents reported that they were more motivated and more likely to protect their children's skin than their own, for a number of reasons. This was primarily because they perceived children as unable to protect themselves, particularly younger children. In addition, many parents believe that a child's skin is more sensitive than an adult's skin, and that there is an increased risk of damage to one's skin as a result of childhood exposure. In this context, it is critical not to suggest that skin damage only, or even mainly, occurs during childhood, as this may suggest to parents (or even adolescents) that they no longer need to protect their own skin from sun exposure. The following quotations illustrate these issues.

"I always worry about my kids first." (Female, Parent - eldest 2-5 years, Melbourne)

"I tend to think the damage is done already for myself, so I worry exceptionally about my kids." (Male, Parent - school aged children, Sydney)

"I try and cover my kids up, but I don't cover myself up as much as I should." (Female, Parent - eldest 2-5 years, Adelaide)

“I think it’s really bad if kids under six get burnt. I think that’s when skin cancer comes.” (Female, Yr 9-10, Bendigo)

Generally, parents were more careful about using protective measures if their child had fair skin. In some cases where children in the same family had different skin tones, parents were stricter about protecting the child with fairer skin. In most cases, parents who themselves had fair skin were also likely to be more protective. Therefore, fair skin tone appears to be an important motivator of sun protection behaviour among parents, as in the rest of the community.

For parents, sunburn avoidance was a key driver for adopting protective measures for their children, reflecting similar findings across the sample. Sunburn represented a salient, immediate and undesirable consequence of sun exposure. Most parents easily recalled their own experiences of the pain, discomfort and/or embarrassment associated with being sunburnt.

“I remember once when I was 10, I got sunburnt really badly behind the legs. That’s always stuck with me. I don’t want my son to go through that. It was just terrible, I couldn’t walk for two days.” (Male, Parent - eldest 2-5 years, Melbourne)

Minimising their children’s skin cancer risk was seen as an important underlying factor influencing parents’ behaviour, but most admitted that this was often not on their mind at the time when they were implementing protective measures, as indicated below:

“I’m probably thinking short term. I’m putting sunscreen on because I don’t want him to get sunburnt today.” (Male, Parent - eldest 2-5 years, Melbourne)

“My daughter got sunburnt the other day and she peeled. I felt pretty terrible. We went kite flying across the road. I thought we’d be out only 15 minutes, but we were out 30 minutes. I didn’t think I was causing long term damage, but I felt bad about the pain she was going to suffer.” (Female, Parent - eldest 2-5 years, Adelaide)

Parents were motivated to be (at least seen to be) good parents. Therefore, protecting their children’s skin was important to help avoid the guilt that would be associated with the short or long-term consequences of sun exposure. Furthermore, many parents felt that there was increasing peer pressure to take children’s sun protection seriously, and that there was a clear

social stigma associated with not protecting their children's skin. This is illustrated by the following quotations:

“I took my son to a park during the day and I forgot his hat... and the dirty looks that I got from other mothers were so obvious, that I went home and thought I'm never going to do that again. There's peer pressure to make sure your child's covered.” (Female, Parent - eldest 2-5 years, Melbourne)

“Where I live, there are a lot of parents and parks and stuff. If my child was sunburnt, there's no way I'd take her to the park.” (Female, Parent - eldest 2-5 years, Melbourne)

It seemed that new and/or younger parents were particularly keen to be good parents and therefore were open to advice about the best ways to protect their children.

To a lesser extent, parents were also motivated to use sun protection for their children in order to preserve their child's appearance in adulthood (that is, to prevent premature ageing). However, this was not perceived as a critical driver.

Various other situational and weather-related factors acted as triggers for sun protection behaviour. In addition, keeping hats and sunscreen in convenient locations was clearly a very effective reminder for parents. For example, most reported storing sun protection aids at the front door, in the car, pram or stroller, or leaving a set at school or childcare centres permanently.

Sun protection barriers Parents highlighted a number of potential barriers to using sun protection. The time and effort required to implement sun protection measures was considered a key barrier for many members of the community. Yet parents felt that even greater time and effort was required to protect children, especially in large families. For example, participants described the effort required to ensure that sunscreen had been applied evenly, not subsequently wiped off by the child, and then reapplied (often with greasy, sandy hands). Some also commented that it was difficult to interrupt or delay their children's playing or other social activities. Additional time and effort was required to overcome occasional resistance from their children, which was not always successful, as highlighted below:

“Sometimes I also give up if there’s a struggle on the hat. I think, “it’s only going to be a couple of minutes”, so it’s not worth the hassle.” (Female, Parent - eldest 2-5 years, Melbourne)

Common reasons for resistance included the desire to avoid “hat hair” (particularly among girls), or feeling hot and sweaty from sunscreen, hats or long clothing, or having greasy skin from sunscreen.

Low risk perceptions were another factor that discouraged parents from adopting protective measures, for both themselves and their children. Protection was often considered unnecessary, or potentially beneficial but not worth the time and effort, if one’s exposure was only expected to be brief or if the weather was cloudy or cool, and so on. Such perceptions were reinforced by lack of evidence of any short-term damage (that is, sunburn) in cases where parents had taken their children outside unprotected in these circumstances.

Occasionally, parents commented that they forget to apply protective measures or take relevant aids with them, and that aids were sometimes unavailable. For example, some noted that there was often a lack of shade at their local park.

Children’s having sensitive skin, eczema or skin-related allergies can also impede the adoption of certain sun protection measures for some people. This was most commonly an issue for using sunscreen but also, in some cases, for hats and long clothing, which can make the child feel hot and irritate certain skin conditions.

Finally, parents felt that fashion was clearly a potential barrier for their own (but not their child’s) skin protection. Many argued that children could wear anything, particularly when at the beach or playing outside, and neither parent nor child was particularly concerned about the child appearing fashionable. Moreover, some parents felt that children’s clothing designers were more likely to take sun protection into consideration than designers of adult clothing. Parents, themselves, were very reluctant to wear rash vests at the beach, or hats (particularly females) or long clothing in summer. As one parent argued:

“You can put kids in any outfit or hat. It’s not a big deal. But for an adult, it’s kind of a fashion statement. You’ve got to have 50,000 hats to match!” (Female, Parent - eldest 2-5 years, Melbourne)

Schools and norms

Schools, and also childcare centres, were seen as setting the standard for parents. Participants gave various examples of rules and practices in place, most commonly including the “no hat no play” policy, as well as indoor assemblies, covered play areas, being asked to leave a hat and/or sunscreen at their childcare centre, teachers assisting children to reapply sunscreen, having sunscreen available for sale and so on. Although some people in rural and regional areas felt that their local primary schools were a bit behind those in metropolitan areas, in terms of sun protection best practice. Sun protection was widely considered to be part of primary school culture, but generally not secondary school culture (for example, with regard to the use of hats, as noted in Section 4.4 and in the quotations below).

“My daughter is going to high school next year, but I’ve heard the same thing: “Don’t buy her a hat because she won’t wear it”. They don’t make them wear it and I can’t force her.” (Female, Parent - school aged children, Mt Gambier).

“What I see a lot of too, our children and their children, they’re protecting them when they are young... but then these kids have grown to another stage where it’s cool to be out in a bikini and lie on the beach, so their attitudes do change when they reach that age of independence where they can go and do what they want to. So we have protected them from that young age but when they get to that next stage it’s up to them anyway.” (Female, 50+ years, Brisbane)

Many parents commented that they had less influence over their older children’s attitudes and behaviours regarding tanning and sun protection, particularly those of secondary school age. Therefore, both school and home environments appear to have decreasing influence over children’s sun protection during adolescence.

There was clear evidence that behaviours enforced within the school setting can flow on to established weekend practices. Some parents, particularly those with younger children, reported that their children associate hats and/or sunscreen with being allowed to go outside, and that they are generally cooperative (and occasionally even proactive) in using sunscreen or wearing hats, as suggested by the following quotations.

“I’m surprised my kids don’t mind it on their face. They just sit there while I rub it on. They know they’re going outside, so they’re happy.” (Male, Parent - eldest 2-5 years, Melbourne)

“They always put sunscreen on them in creche. So when he’s at home and going outside, he goes to get his sunscreen. He knows he’s got to put it on.” (Male, Parent - eldest 2-5 years, Melbourne)

A number of parents expressed a desire for their children to develop good sun protection habits, and hoped that they would then continue to apply these as an adult. Many felt that they personally had missed out on such early behavioural reinforcement and thus had not been able to form positive sun protection habits for themselves. As one parent commented:

“One reason I put sunscreen on my children, and not me, is because it’s a life habit and I want them to get used to having that life habit, even when they’re an adult. I haven’t had that, but I think it’s really important for their generation.” (Female, Parent - eldest 2-5 years, Melbourne)

“I’m hoping that those things become so normal... he doesn’t go outside if he doesn’t have his hat and shirt on. He’s just not allowed out. So it’ll become a habit, you know, that’s just normal.” (Female, Parent - eldest 2-5 years, Townsville)

Some parents believed that sun protection for children was being seen as increasingly “normal”, both among parents and the children themselves. In some ways, this was perceived as contributing towards the child’s acceptance of sun protection measures, as suggested below.

“I think they know that all the other kids are doing it as well. It’s not just them being singled out. They’re educated and they’re all the same.” (Female, Parent - eldest 2-5 years, Melbourne)

Schools and childcare centres were considered a key source of knowledge for parents, with newsletters seen as a critical communication channel. Yet while reflecting on their own childhood, many parents felt that TV advertising was more influential than the school environment when they were growing up. They believed that the current generation of children has the advantage that the issue of sun protection is now better integrated into important institutional settings, such as primary schools. Another source of knowledge of particular relevance to parents is observation or picking up ideas about new sun protection measures from

other parents. For example, one parent reported that other parents had enquired about her son's new rash vest which had built-in floatation, and were keen to source one for their own child. Others commented that they only considered using dome-shaped tents as shade at the beach after they saw other people using such structures.

There was some evidence of the potential for education about effective skin cancer prevention to flow-on to good early detection habits. One woman relayed the following story, which demonstrates this point:

“My 13 year old said “I want to go to the doctor and get my moles checked”. I had no concept that she was in any danger at this point, but I celebrated that... she got her moles checked, she's happy, the doctor said to her “this one and this one, you need to keep more of an eye on over the years”. We've even started measuring them and recording that on a monthly basis. I'm so glad that she's aware of that and hopefully that's something she'll stay aware of for life and she will catch anything in time.” (Female, Parent - school aged children, Mt Gambier)

On the whole, sun protection norms for children are affecting parents' behaviour. The issue of sun protection is more salient overall. In addition, sun protection aids are becoming increasingly accessible within households, for the whole family. As one parent noted:

“[Childcare is] doing the right thing. They help create the habits for us as well. When we go places, this is before I was taking him to childcare, I wouldn't have necessarily put the sunscreen in there.” (Female, Parent - eldest 2-5 years, Melbourne)

There is evidence that the generational link in parenting practice is already being broken, and parents are keen to do a better job than that of previous generations. Furthermore, parents expressed a general desire to model positive sun protection behaviour for their children and not be (seen as) hypocritical. Some parents described situations where their children had pointed out that they should be using sun protection as well. This general desire to be a good role model is an important motivator for parents to protect their own skin, although most admit that they do not always fulfil this role and would like to do better.

“I don't really look after myself, but I'm really starting to try to make an effort to do that because by putting it on them and not on yourself, you're really

contradicting yourself and the importance of it. We need to be better role models for them.” (Female, Parent - eldest 2-5 years, Melbourne)

“If I’m not wearing a hat when I’m playing outside with them, they’re always onto me about that.” (Male, Parent - eldest 2-5 years, Melbourne)

Most parents felt that having children had made them take sun protection more seriously (primarily for their children, but also sometimes for themselves) than when they were younger and did not have a family to look after.

“With the awareness we’ve got now, now that we’re parents... things have definitely changed for me.” (Female, Parent - eldest 2-5 years, Melbourne)

4.9 Reactions to advertising

Advertising recall When asked what sun protection messages they could recall, “Slip! Slop! Slap!” was nearly always mentioned. Some participants, both younger and especially older participants, remembered an ad with a singing “seagull” without being prompted, although a few mistakenly recalled a “duck”. People often recalled modified versions of the original campaign. There was also some unprompted recall of both the “Tattoo” and “How to Remove a Skin Cancer” campaigns. Reactions to these three advertisements will be discussed in more detail below.



Some participants (primarily those in Queensland) recalled the Suncorp ad which depicts a child who grows up and gets skin cancer, with the father grieving. Interestingly, some teenagers saw this ad as being targeted at them. This TVC is part of a campaign co-branded with Molescan. However, few people recalled either Suncorp or Molescan, assuming the ad was from either a health department or the Cancer Council.

In Victoria, a number of adolescent females remembered an advertisement with a young woman in a swimming pool whose face is consistently above the water level and therefore this part of her skin ages rapidly. This advertisement was unable to be sourced. However, it reinforces that messages relating to premature ageing are salient for some young women in the context of sun protection.



When asked about sun protection advertising, several commercial ads were remembered by participants. The Banana Boat sunscreen ad was most commonly mentioned and well liked across all age groups. Other examples include the Coppertone ad (with Jodie Foster as a young child) and the Le Tan ads.



There was some mention of an ad where a snowman melts in the sun, referring to the "Seymour the Snowman" campaign. The "Me No Fry" campaign was remembered by some.

A few referred to the "Time Bomb" ad, with some expressing concern that it had frightened their young children.

"There's a campaign at the moment... "if you've got sunburnt, no matter how mild it was, it's a timebomb waiting to happen". My children are terrified because they know they got sunburnt and they think they're going to die." (Female, Parent - school aged children, Mt Gambier)



The term, "SunSmart", was recognised by many and seen as a straightforward, self evident and positive message. Some thought it might have been the name for an organisation or government body. Yet, generally speaking, it was understood to mean "be sensible when you're in the sun". Unfortunately, this term emphasises the misconception that the risk is only posed by direct sunlight. Nonetheless, participants used this term during discussions, and it was particularly familiar in the context of "SunSmart schools".

Slip! Slop! Slap!
TVC



In addition to recognising the seagull character, many fondly recalled the Slip! Slop! Slap! jingle and saw it has having put sun protection on the agenda. The phrase, Slip! Slop! Slap! has become part of the lexicon. It has the advantage of being action oriented, and although not everyone accurately identified to what action each component referred, the general take-out was "use measures to protect your (children's) skin". However, it was sometimes pointed out that the seagull's speech impediment made it difficult to understand what he was saying. Nonetheless, most believed, at least, that it increased their

awareness of sun protection and the need for multiple sun protection measures, as suggested below:

“That was the first time I really started thinking about the sun and skin cancers.”
(Male, 50+ years, Sydney)

Some participants went further, reporting that this ad made a significant impact on their behaviour. Overall, the ad was seen to suggest that sun protection is relatively easy and effective.

Most believed that the ad was targeted towards, and effective for, children, particularly for young children. But some adults felt it would be unlikely to change their own behaviour. As one parent commented:

“Very catchy for kids. My son would love that. You could get them singing along.” (Female, Parent - eldest 2-5 years, Melbourne)

Others thought it had broad appeal, as indicated below, with some parents noting that the use of cartoons and reference to “kiddies” were likely to attract their attention.

“Everyone. Anyone from little kids all the way up.” (Male, Yr 11-12, Brisbane)

“It’s broader. We’re all big kids.” (Female, 50+ years, Coffs Harbour)

There was a degree of nostalgia associated with this ad, even across the younger age groups. Parents, in particular, felt that it reminded them to apply what they already knew and perceived it as an important message that future generations needed to hear. Some parents favoured prevention messages with a positive focus such as this one, rather than the graphic, negatively framed health-related messages they were used to seeing on television.

Overall, this ad may help to increase the salience of sun protection, but it no longer presents any new information for its audience. The ad still appears to be powerful at a socially normative level, suggesting that sun protection (of one’s children) is normal and expected by society. The ad and its message have become part of the cultural capital.

Tattoo - Killer
Body Art TVC



The “Tattoo” ad resonated well with younger audiences, particularly females. Yet it was also fairly effective in getting males’ attention. This ad directly challenges existing views about the safety of tanning and leverages people’s fear of scarring associated with skin cancer, to some extent. However, some participants were unable to reconcile the fact that the ad was meant to convey an anti-tanning message, but the woman depicted was young, tanned and attractive. Thus the short-term appeal of a tan is likely to outweigh any long term effects on looks.

“I think it goes too far. They say that “no tan is a safe tan”, but what do you expect? It’s un-Australian not to have a tan.” (Male, 18-24 years, Sydney)

Several participants were distracted by the site of the mole/skin cancer and by the midriff top, as the following quotations suggest. Some almost self-selected themselves out of the target audience because they did not wear midriff tops.

“[It] would make me think I should put sunscreen on my stomach if I wore a midriff top.” (Female, Parent - school aged children, Sydney)

“It goes with a lot of fashion today that you get burnt on the stomach.” (Female, 18-24 years, Adelaide)

Others found the changing image somewhat distracting and therefore did not pay attention to what was being said in the voiceover, as captured by the following quote.

“The voice wasn’t really that effective. It sounded really serious but I was concentrating on the image, I just wanted to see what was happening.” (Female, Yr 9-10, Bendigo)

There also seemed to be some potential that this ad could reinforce beliefs about the transience of skin cancer, especially because the scar dissolves towards the end of advertisement, thereby undermining the message regarding the seriousness of skin cancer. This is illustrated by the comments below:

“It just seems like it’s serious, not deadly.” (Female, 18-24 years, Adelaide)

“I don’t think it went far enough. It showed a horrible scar, but then the scar really faded. It wasn’t graphic enough, so you think “that’s actually not too bad”.” (Male, Parent - eldest 2-5 years, Melbourne)

“The scarring [in the TVC] could be seen as excessive and overdone, and you think “oh, they do it better these days”. (Male, skin cancer removed, 50+ years, Melbourne)

“With plastic surgery today a lot of women may look at that and know they can get rid of [the scarring].” (Female, skin cancer removed, 50+, Brisbane)

How to Remove a Skin Cancer TVC Many liked the idea of being shocked, and claimed that ads such as “How to Remove a Skin Cancer” were effective for them. Others claimed that they would not watch such graphic ads if they were just watching television at home. In this particular ad, the extremely negative and graphic images appeared to overshadow the spoken messages for many people (for example, about temperature not being related to sunburn). This view is reflected in the comment below.

“I didn’t notice that they were saying anything, because I was looking at images. I just saw the surgical consequences.” (Male, 18-24 years, Sydney)

Overall, participants liked the fact that this ad showed the potential consequences of sun exposure. Some felt that this increased their perceptions of the seriousness of skin cancer but, for many, it reinforced the notion that skin cancer is treatable. The following quotations highlight this reaction.

“It still doesn’t get across the death message.” (Female, 18-24 years, Adelaide)

“Makes it seem like it is simple to get rid of skin cancer. You just cut it out and then you don’t have it.” (Female, 18-24 years, Adelaide)

“It suggests that all skin cancer can be removed, you just need to have superficial surgery to get it out.” (Female, 18-24 years, Adelaide)

“It’s like, you go to the hospital, they give you drugs, you wake up, no more cancer.” (Male, Yr 11-12, Bendigo)

“That actually makes it seem a bit less severe – just a needle, cut it out, a bit of skin, and you’re done.” (Male, Yr 9-10, Melbourne)

“You’d think it can be chopped out, then it’s all over and done with.” (Male, Parent - eldest 2-5 years, Melbourne)

It was also clear that this ad may not increase the viewer’s perceived personal susceptibility, as suggested below.

“I think you know what could happen, but people don’t know the likelihood of them getting it. People don’t know how common it is or, if they are at risk, they think they aren’t.” (Female, 18-24 years, Adelaide)

The fact that the cancer was depicted as being on the person’s face maximized the audience’s fear of disfigurement, and the level of discomfort associated with watching the ad. The idea of having a scar on one’s nose was much more unsettling than having it on one’s waist, which could be more easily hidden, as illustrated by the following participant.

“I’ve seen worse ones – it was on his face, which was worse because everyone can see it. Her scar [Tattoo TVC] was perfect, and it was on her stomach and you don’t really see that.” (Female, Yr 9-10, Bendigo)

The use of humour in this ad (that is, the comment about one’s backside and the corresponding image) was unexpected and helped to make the ad more memorable for the audience. Compared to the other advertisements, adults were very likely to perceive this ad as targeting them. It was more relevant to their current concerns for their own skin, rather than younger people. Although some parents commented that such intense, graphic imagery had the potential to frighten very young children.

4.10 Considerations in addressing particular audiences

The following section outlines some suggestions and considerations for future communications campaigns that may target particular segments of the community.

Parents

The research suggests that a sun protection campaign targeting parents

should highlight the increased risk associated with childhood sun exposure, but without suggesting that it is “too late” for others (including parents themselves). In conjunction with this, it would be valuable to emphasise their children’s inability to protect themselves. There would also be scope to appeal to the widespread motivation to be a good parent, and to reinforce the importance of positive role modelling. It is useful to remember that interventions targeting children also tend to affect their parents’ attitudes and behaviours.

Teenagers and young adults Most of the general conclusions presented in Section 5 relate to the target audience of teenagers and young adults, as well as other sections of the community. Overall, the emphasis should be on prevention of damage from sun (or UV) exposure, but not to the exclusion of detection messages. It should also be noted that the long term risks of sun exposure are harder to make relevant to a younger audience.

Older adults (50+ years) For older adults, the emphasis should clearly be on early detection of skin cancer. Any targeted communications efforts should encourage them to prioritise having their skin checked by a professional and systematising their skin checking behaviour (akin to other regular check-ups). Future campaigns should emphasise the survival rates from early detection of skin cancer, rather than mortality rates. There is also a need to address fatalism among those people who experienced very high exposure in their youth and working life, so that they believe they still have a degree of control over their future.

Conclusions and recommendations

The aim of this research was to guide the development of the National Skin Cancer Awareness Campaign. Each of the questions raised in Section 2.2 of this report is addressed in turn, under the following headings.

Is a mass market campaign appropriate? The research suggests that there are a number of reasons why a mass marketing campaign is appropriate for addressing the issue of skin cancer in Australia:

- Sun protection behaviour and risk-taking behaviour both appear to be heavily influenced by social norms. What is considered to be “normal” can in turn be influenced by effective social marketing.
- Certain aspects of the Australian culture serve to elevate skin cancer risks. Outdoor activities are seen as integral to the Australian way of life, and a tan is often perceived to be part of the Australian image. Attempts to influence this culture and its associated imagery or to work within it appear to require some form of mass-market social marketing.
- Despite a latent desire to take all reasonable precautions, the salience of the potential to develop skin cancer is low relative to the actual risks. A mass marketing campaign could usefully increase the prominence of the need to protect one’s skin in the minds of the public.
- There is reasonable basic knowledge of the long-term risks of sun exposure and the available sun protection strategies. However, many adopt inadequate strategies in the belief that they are doing all that is reasonable. Furthermore, large numbers of people have significant misconceptions about the more detailed nature of the risks from sun exposure and how the damage occurs (e.g. the belief that only burning represents a problem, or that a tan protects against skin cancer). Therefore, there is scope to address this situation among a large audience, via a mass marketing campaign.

- The research suggests that many potential messages are relevant to different life stages.

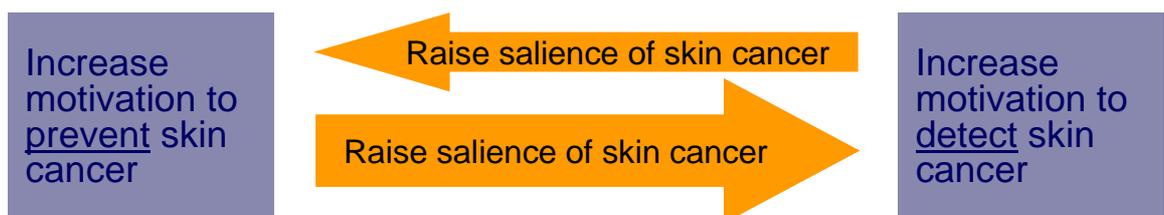
Most importantly, skin cancer affects a high proportion of people either directly or indirectly. Accordingly, a mass market campaign represents a sensible response to the skin cancer epidemic.

Should its focus be prevention or detection? In deciding whether the focus of a mass marketing campaign should be prevention of skin cancer or detection, some of the relevant considerations are:

- Which provides the greatest potential health benefit (both in terms of the number of people who might benefit and the extent to which each might benefit)?
- How easily is that benefit realised?
- To what extent, if any, does addressing one area provide benefits in the other and vice versa?

On each of these criteria, this research suggests that there is more scope for a successful prevention, than early detection, campaign. Large numbers of people appear to be in a position to benefit to a significant extent from more effective adoption of skin cancer prevention strategies. These gains appear to be realisable through an appropriate intervention, which would also have a positive impact on early detection.

It is worth noting that the two objectives of prevention and early detection are not antithetical and can, to some extent, be addressed simultaneously. However, as illustrated in the following diagram, there is likely to be more potential for a prevention focused campaign to impact on early detection behaviour than there is for an early detection focused campaign to impact on prevention behaviour.



There are also some potential problems associated with a focused early detection campaign. Specifically, increasing the public's knowledge and perceived self-efficacy for preliminary self-diagnosis is unlikely to be easily achieved. There were a few participants who said that they would be interested in information about how to identify changes on the skin that warrant the attention of a health professional. However, there is a limited appetite for this information. The perceived relevance of checking one's skin is largely confined to older people with high perceived susceptibility and significant lifetime exposure. Therefore, an early detection campaign would need to change perceptions of personal relevance and educate people in the skills that they would need to check their own skin.

There are also several practical difficulties of noticing changes, such as not being physically able to check all parts of one's body and not remembering the colour, shape or existence of moles or other marks on the skin.

Therefore, any detection campaign would need to focus on seeing a health professional regularly. Accordingly, any early detection campaign would probably be best targeted at (or via) health professionals.

For all these reasons, the research suggests that a mass marketing campaign regarding skin cancer should focus on prevention.

At whom should the campaign be targeted? It is possible to devise campaigns that effectively target all people. However, many campaigns benefit from being actually or ostensibly targeted at part of the population. Selecting an appropriate target audience for a skin cancer prevention message should take into account the answers to the following questions:

- Within which possible target groups does the greatest health benefit lie (again, in terms of both incidence and extent)?
- How easily can this benefit be realised within that target group?
- To what extent do messages directed at this group generalise to others?

Taking these considerations into account, it may be that a "Coke strategy" represents the most appropriate approach. Coke's marketing appears to be targeted at young people. However, its

actual target is everyone with a mouth. Extending this analogy, the target audience for a national skin cancer awareness campaign is everyone with skin. The ideal strategy may be to develop the campaign with the (still relatively broad target of) young people, say aged 16-25 years, as the apparent target audience, but with all people as the actual target audience. The ostensible target audience is justified because this age group appears to take the most risks. The following factors, as found in this research, appear to influence this risk-taking:

- Most parents feel that they exert less direct control over the behaviours of their secondary school aged children compared to younger children, and many secondary schools appear to adopt fewer and/or less stringent sun protection policies.
- Parents appear to be motivated to protect their children's skin and (to some extent) act as appropriate role models for their children. Many feel that their transition into parenthood (which younger people have not yet experienced) has, to a certain extent, encouraged them take sun protection more seriously than when they themselves were young.
- Although tans were considered to be desirable across different age bands, teenagers and young adults seem to be the most oriented to tanning in terms of their likelihood to actively seek a tan (which is consistent with the findings of the recent National Sun Survey).
- Adolescents tended to report a higher incidence of burning than older age groups (as supported by quantitative data from the National Sun Survey).

However, younger people appear relatively open to communication and typically, their behaviours are more malleable than those of older adults. In addition, young people are highly influential in setting social norms for younger people who aspire to adulthood, as well as for older people who cherish youth. Conversely, targeting any other lifestage risks alienating others.

Should the message be positively or negatively framed?

There is scope to use either positively or negatively framed messages, or even messages and/or campaigns that utilise both positive and negative elements, noting that any mention of cancer conveys a certain level of seriousness.

The research identified a number of reasons why there may be potential for positively framed messages (or elements of positive framing) as part of a skin cancer awareness campaign.

The subject matter is inherently positive because of its associations of being outdoors and in the sun. Similarly, looking attractive is an important part of feeling good about oneself. The communication environment is thus one in which there are already many positive motivators operating. A positively-framed message represents an opportunity to embrace the fun of the outdoors, and avoids the risk of coming across as the “fun police”.

The protective strategies that one would aim to promote via a prevention campaign all involve compromise, hassle, delay or expense. Therefore, framing the message positively could help to counteract these attitudes.

A positively framed message is particularly suitable for behaviours that are heavily influenced by social norms, as is the case with sun protection. Positive framing may also make it easier to integrate the (positively framed) assets “SunSmart” and/or “Slip! Slop! Slap!”. It also may be suitable to use positive framing because the objective of a skin cancer prevention campaign would be to encourage people to take active measures (rather than to cease an existing behaviour as is the case with, for example, smoking).

That is not to say that a negatively-framed message could not work in this context, nor that the message should necessarily avoid including any negatively framed elements. Indeed, many participants believe that focusing on the negative consequences of sun exposure would be necessary to raise the salience and severity of skin cancer. It seems that health messages have formed something of a “genre” in the minds of the public. As one participant said:

“Every health campaign uses shock tactics.” (Male, 18-24 years, Sydney)

In this way, a negatively framed message has, to some extent, become the expected form of health message and is generally believed to be effective. This may be a reason to deliver to this expectation and to raise the perceived personal threat level posed by skin cancer but, equally, it may be a reason to capture the audience’s attention by delivering a surprisingly positively framed health message.

If a negatively framed message or elements of negative framing are used, particularly if this involves graphic or disturbing images, care is needed if children are part of the target audience, or if children are potentially exposed to the advertisements.

Negative framing typically involves linking a non-desired behaviour(s) with some negative consequence(s). There are two types of positive framing, which are often used simultaneously:

1. linking the desired behaviour to positive motivators/outcomes
2. linking the desired behaviour to the avoidance of negative consequences

Thus, as indicated above, there is scope to use elements of positive and/or negative framing in the proposed campaign.

What message(s) should the campaign seek to convey? Given that there is already a tendency for people to rely on a single sun protection measure, it will be important that the message be seen to encompass more than one measure.

As has been mentioned, knowledge of sun protection measures does not appear to represent a barrier to appropriate behaviours. Motivation and issue salience are more likely to stand in the way of action. Therefore, the message could attempt to present effective sun protection as part of one's normal routine before going outdoors. However, care would need to be taken to ensure that such a message does not lead to behaviours which might risk Vitamin D deficiency in some parts of Australia.

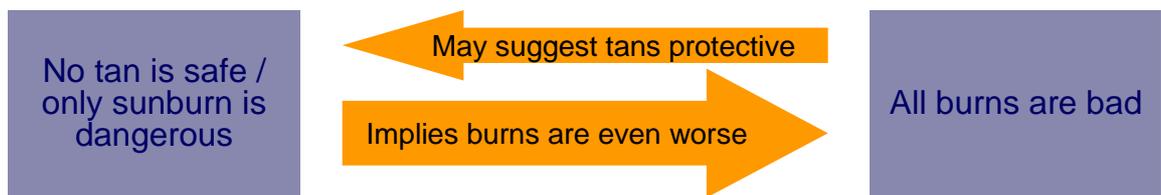
Similarly, a message could aim to position sun protection as akin to other widespread protective behaviours, such as cleaning teeth, or wearing a seatbelt.

There are many messages that the campaign could potentially use to motivate people to protect their skin from the effects of the sun. The following is not intended to be an exhaustive list, just a catalogue of ideas that were raised by participants in the research.

There may be merit in harnessing the desire to stay looking good and avoid the medium to longer-term aesthetic consequences of UV exposure (such as premature ageing, scarring). However, this approach risks narrow relevance (i.e. it may only be relevant to those who are particularly concerned about their appearance, and / or those who are concerned by signs that

they are ageing.) The key challenge of this approach is that the benefits of looking good in the future are likely to be overshadowed by the short-term aesthetic benefits of a tan. In addition, the risks of premature ageing and leathery looking skin are only seen to relate to extreme tans, while light to moderate tans are generally not associated with potential for negative aesthetic consequences in the short or long term.

One message that may warrant further investigation is that “No tan is safe/not only sunburn is dangerous”. This would serve to counteract the belief that suntans are protective against sunburn and the risk of skin cancer. In this way, this message could challenge existing perceptions and convey new information. It is worth noting that a message “No tan is safe / not only sunburn is dangerous” is preferable, in an Australian context, to a message that focuses on avoiding sunburn (the latter approach having been chosen by the US Centres for Disease Control. This is because a message that says that “All burns are bad” does not challenge the widely held belief that tans are protective. By saying that “No tan is safe / not only sunburn is dangerous”, one states that tans are a cause for concern, and implies that burns are even worse.



For the message “No tan is safe” to work, it may be necessary to re-calibrate what is understood to be a tan (given the variations in what people consider to be “tanned” and the existence of artificial tans) or re-frame the message in terms of UV exposure. For all these reasons, “Not only sunburn is dangerous” may represent a better message than “No tan is safe”. In any case, the campaign could aim to leave the audience with the conclusion that a tan comes at too high a price, it being pointless to suggest that a tan is unattractive. It may also be worth considering using the campaign to position a tan itself as the skin’s response to damage.

In summary, there are a number of possible campaign messages that could produce the desired behaviour changes.

Are there any approaches that should be explored?

The research suggested some potential approaches for delivering these messages, and there are probably many other approaches. Regardless, additional research would be recommended in order to assess the effectiveness of any communication approaches under consideration.

One possible approach is the depiction of positive role modelling, that is, showing well protected people enjoying the outdoors. This would help to communicate that people can be “SunSmart” without having to avoid the sun entirely or stop doing the things that they love.

There is also a potential role for cultural icons to act as spokespeople and positive role models. Key examples would include life savers or surfers and sports people, such as the Australian cricket team (especially Andrew Symonds, often mentioned by participants as renowned for his use of zinc cream).

Another possibility is an approach centred on the fact that Australia has the highest incidence of skin cancer in the world. The advantage of this is that people believe it, sometimes with evident pride that ours is a rugged country of climatic extremes. This information could be used to engender the idea of Australia as a special case that warrants extra care. It provides an almost patriotic hook on which practical sun protection messages could be hung. Given that there is a tendency to overestimate mortality statistics, it would be sensible to avoid de-bunking such beliefs.

Other potential approaches may focus on bringing the future into the present, thereby making it seem more real and immediate. Appropriate creative devices could include ones such as Sliding Doors (exploring what would have happened if a different path had been taken) or the Time bomb metaphor, for example.

It may also be beneficial to develop a communications campaign showing that excuses for lack of appropriate behaviour are trivial, particularly when compared to the risks being faced. This theme was successfully adopted in a recent television campaign (entitled “Echo”), which was designed to encourage smoking cessation. It was also used in the US Centres for Disease Control campaign on sunburn prevention.

Some participants suggested an approach that should increase the perceived threat level by showing exactly how skin cancer grows and spreads throughout the body, and highlighting the

difference between the appearance of a lesion on the skin's surface and the real damage that is being done to one's body. A related approach was to leverage the "unseen" causes and effects as a campaign theme, by highlighting both the fact that UV is not visible and that the damage can happen without one's noticing. This approach would not have to be overly negative, but could be framed in such a way as to give people a 'reality check' and encourage them to take action early rather than waiting for a sign.

A myth-busting approach also appeared to be a viable way of communicating messages about sun protection and/or early detection, gaining attention and imparting new information by challenging received wisdom. A detailed list of common sun protection myths that might be applied to such a campaign is presented in the following sub-section.

One final note regarding approaches is that it is most likely going to be too difficult for the Department to gain traction in changing the fashionability of tan or of hats. This is not an area in which the government is perceived to have credibility, and therefore should not be given much consideration.

Overall, the research identified various potential approaches for the skin cancer campaign that warrant further consideration.

What unintended messages should be avoided? As reported in Section 4 of this report, there were numerous misconceptions relating to skin cancer and the risks of UV exposure. Therefore, any campaign should be checked to ensure it does not inadvertently reinforce any of the following widely-held skin cancer myths:

- It is possible to tan safely
- A tan provides protection from the harmful effects of the sun
- Only sunburn is a cause for concern
- You need plenty of sun to avoid a vitamin D deficiency
- You only need sun protection when it is hot and sunny
- The sun is only harmful in the middle of the day

- You only need protection if you are going to be outdoors for an hour or more
- Sunscreen is an adequate protection on its own
- Olive and darker-skinned people cannot get burnt/skin cancer
- Only exposure as a child really matters, exposure as an adult is not so important, the damage is done
- Only those with extreme tans are at risk of premature ageing
- Only older people need to look for skin changes

It is also worth noting that “sun protection” is understood by some people to mean sunscreen.

The interviews with those who had had skin cancer removed did not identify any particular sensitivities among this target group with respect to a potential skin cancer awareness campaign. Indeed, those with experience of skin cancer were particularly glad to hear that there were plans to implement a national campaign, as it was felt that educating the public could help to minimise the number of people having to undergo treatments associated with skin cancer.

Appendix A

Discussion guide

Introduction

- Thank for coming along
- Introduction to social research / group discussions
- Facilitator's role: to raise topics and issues and then for you to tell me what you think
- No right or wrong answers, your opinion that counts. Please be honest
- GROUPS:
 - Group rules: one person speaks at a time / feel free to disagree
 - Audio &/or video taping, mirror. Reassure confidentiality, anonymity
 - Session will take up to 2 hours
 - Hand out incentives (sign and check contents of envelope)
 - Refreshments, toilet facilities, please turn off mobile phones
 - [PARENTS:] During discussion, please think about [oldest child aged between 2 and 5 years/child or children of primary school age]
 - Participants introduce themselves
- DEPTHS:
 - Audio-taping. Reassure confidentiality, anonymity
 - Session will take up to 45 minutes
 - [FACE-TO-FACE:] Hand out incentives (sign and check contents of envelope)
 - [PHONE:] Record postal address for mailing incentive
 - [PARENTS:] During discussion, please think about [oldest child aged between 2 and 5 years/child or children of primary school age]

[Note where questions specifically for young people/parents/older people/those who have had skin cancer removed]

Issue salience

- [Brainstorm:] Briefly, what are the main things you consider to be health issues for people like yourselves? *(Note any mention of skin cancer/sun protection)*
- Compared to other health issues you've mentioned, how concerned are you about protecting your / your children's skin from the effects of the sun? Why is that?

Knowledge, attitudes and behaviour

(a) Tanning

Notepad exercise

- 1) What words and images come to mind when you think about a suntan?
- Discuss notepad responses.

- Is it good to have a tan? Why/why not?
 - Do any of your friends or other people you know try to get a tan? Why do you think they do this? (*Note whether media portrayal is mentioned.*)
 - [*YOUNG PEOPLE / ADULTS*] Have you ever deliberately tried to get a tan? How? Why/why not?
 - Discussion of magazine images.
 - Out of these images, which do you think has the most attractive skin tone? Do you think that level of tan is safe? If not, which one is?
 - To what extent is tanning safe? [*FOR PARENTS*] How safe is it for children to tan? What about developing a gradual tan without burning? Do you think that having a tan gives someone more protection from the sun?
 - Have you ever visited a solarium or used a sunbed? *Explore perceptions.*
- (b) Risks and sunburn
- What is UV or ultra violet exposure? How much exposure does someone get when it's cloudy, compared to when it's sunny? Have you noticed the UV index in the daily weather reports?
 - What are the reasons you try to protect your/your children's skin from UV exposure? What motivates you? (*Assess role of past experiences with sunburn vs future skin cancer risk.*)
 - What are the risks of UV exposure? (*Explore knowledge of short and long-term harm/consequences.*)
 - Is a little bit of sun exposure okay? How long would someone need to be exposed to the sun for them to harm themselves?
 - [*PARENTS:*] Are children more or less at risk of damage from the sun than adults? Why?
 - How often do you/your children get sunburnt?
 - Under what sort of circumstances you/your children tend to get burnt?
 - What parts of your/your children's body tend to burn?
 - Tell me about a time when you/your children got sunburnt. What things led to you/your children getting burnt? What did you do? How did it make you feel?
- (c) Skin cancer
- As far as you know, what things increase one's chances of developing skin cancer? Explore.

- How likely do you think it is that you will develop skin cancer at some stage in your life? Why is that? [PARENTS:] What about your children? (*Probe on reasons for any difference*).
 - What do you know about different types of skin cancer? What ones have you heard of? Can you tell me more about that?
 - How severe do you think skin cancer is? Why do you say that? What might be the consequences of having skin cancer? How common would these things be for people who develop skin cancer?
 - How might you check for signs of skin cancer? Have you ever done this? Why/why not? How often?
 - What things might stop you from regularly checking your skin for signs of skin cancer? What might encourage you or make it easier for you to check your skin? [*Probe fully - eg perceived control and self efficacy*]
 - To your knowledge, can skin cancer be treated? What treatment options have you heard of? Can you tell me more about that? In your view, how successful are these treatments likely to be?
 - Where have you learned these things about sun protection and the effects of sun exposure?
- (d) Sun protection
- What sorts of things can someone do to protect their own / their children's skin from the sun?
 - Which things do you use to protect your / your children's skin? When do you believe sun protection is necessary/unnecessary? *Probe incidental exposure e.g. driving, walking to shops.* Under what circumstances do you do more/less to protect your / your children's skin from the sun? (*Explore seasonal variations, cloudy days, different times of the day, whether in shade.*) Why?
 - [PARENTS:] Who normally undertakes measures to protect your children from the sun? (*Probe on roles of: you/partner, school/childcare, children themselves - at what age?*) Why?
 - [PARENTS] To what extent do you think what you do to protect yourself from the sun influences your children's behaviour?

Card sort exercise 1

- Task undertaken while moderator absent from room. Ask participants to work together (in two separate groups, where possible) to order or rank sets of cards in terms of:
 - (a) the amount of protection they provide for your/your children's skin, and then

(b) how easy/convenient they are to use or do (for self and/or child)

Participants must also explain why they've ordered the cards this way.

LIST:

- applying SPF 30+ sunscreen
 - wearing protective clothing that covers the skin
 - wearing a broad brimmed hat or legionnaire-style cap
 - staying in the shade
 - reducing time spent outdoors
 - avoiding the sun during peak UVR times (11am to 3pm DST, 10am to 2pm EST).
- [*Discuss card sort responses:*]
 - *Probe knowledge/beliefs about relative protection and ease of use.*
 - Are any of these measures adequate/inadequate on their own? What is the most effective combination?
 - To what extent do you think males and females differ in terms of their attitudes towards sun protection, or the extent to which they protect themselves from the sun? Why do you think that is? (*eg willingness to protect skin, preferred measures*)
 - How much do you think skin type influences the need to protect one's skin? (*Explore perceptions of self vs others*).
 - How should sunscreen be used so that it provides the maximum amount of protection? [*Probe:*]
 - When to apply?
 - How much to apply? (eg ml, what size in palm)
 - How much should it be rubbed in? Does it matter if it's rubbed in or not? Why?
 - What SPF is adequate? What level of SPF do you like to use? Why?
 - Need to reapply and frequency? (eg every 2 hours, after swimming/activity)
 - How harmful is sunlight that comes through clothes? [*Probe: Are all fabrics equally protective?*]
 - Do you think you do enough to protect your / your children's skin from UV exposure? Why do you say that? In your view, what else could you do? (*eg use same measures more frequently, or additional measures?*)
 - What sorts of things make it difficult for you to protect your/your children's skin from UV exposure? [*FOR PARENTS*] How much control do you feel you have?

[FOR ALL] Anything that would make it easier?

- Do you feel that you know enough about sun protection to protect your /your children's skin? What other information would be useful? Where would you expect/prefer to get this information? Why? *[Prompt if necessary: advertising channels, TV/magazines/newspapers/radio, school, parents, friends, health professionals etc]*?

Communication

I'd now like to ask you about advertising that you may have seen.

- Can you think of any sun protection campaigns you have seen or heard? *[Explore any ads, slogans, messages, images or characters.]*
- What were your impressions of that ad? Did you find it relevant to you personally? Why/Why not?
- *[Prompt using storyboards or notepads - for those ads not already discussed above]* Have you seen any of the following advertising campaigns before?
 - What is the ad trying to tell you, or get you to do? How believable is it? How effective?
 - Who is the ad aimed at? Did you find it relevant to you personally? Why/Why not?
 - "Slip! Slop! Slap!"
 - "How to remove a skin cancer" OR
 - "Tattoo" - "skin cancer, it's killer body art"
- Have you heard of 'SunSmart'? What does it mean to you?
- *[If time]* What types of sun protection messages (would) work best (for you)? *[Explore impact of negative framing (eg health warnings, graphic images) vs positive framing (eg showing desirable attitudes and behaviours)]* Why?

Additional issues for skin cancer interviews

- In what ways has your experience of having a skin cancer removed changed your attitudes regarding ...
 - sun protection (your own or others)? Has this had any impact on your behaviour?
 - sun protection advertising? *(Explore commercial vs non-commercial messages. Note any sensitive issues in prior or potential skin cancer campaigns)*
- What do you think is the best way to convince people to protect their skin from the sun? What messages, communication channels etc? *(Note - Need to analyse this by audience segments.)*

Thank and close

- This research is being conducted on behalf of the Australian Government Department of Health and Ageing. The findings will be used to help them to develop a new national media campaign to build people's understanding of skin cancer and the importance of sun protection.
- Our company also conducts online surveys from time to time. Would you be interested in joining our online survey panel? If so, collect details on blue form.