



Ipsos-Eureka
Social Research Institute

EVALUATION OF NATIONAL SKIN CANCER CAMPAIGN

Prepared for Australian Government Department of
Health and Ageing
Ipsos-Eureka project #4107
Date: April 2008

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This section provides an overview of the research context, design, findings and recommendations.

EXECUTIVE SUMMARY

1.1 Background and objectives

The National Skin Cancer Awareness Campaign, which ran during Summer 2006/07 and Summer 2007/08, aimed to educate Australians about the importance of protecting themselves from skin cancer. The primary target audience was teenagers aged 13-17 years and young adults aged 18-24 years. Ipsos-Eureka Social Research Institute was commissioned to conduct research to evaluate the effectiveness of this campaign.

1.2 Research design

Four online surveys were conducted, one prior to the launch of the campaign in November 2006, one after the conclusion of the first phase of the campaign in February 2007, and one prior to and after the second phase of the campaign, conducted in November 2007 and February 2008. In each survey, the research involved around 1,000 interviews with 14-17 year olds and 1,000 interviews with 18-24 year olds. The first two surveys also included a similar number of parents.

1.3 Methodological limitations

When measuring sun protection behaviours, it is likely that the prevailing weather conditions will be very influential. The average temperature was higher in the February surveys than the November surveys. Furthermore, there was significantly more rain in many states in February 2008 compared with February 2007.

The impact of weather variation needs to be taken into account when interpreting the results. For example, given that seasonal variation should be expected in tanning behaviour, and it is also likely to be influenced by weather conditions, the impact of the campaign on tan-seeking is difficult to assess. Likewise, the proportion being burnt in summer is likely to be higher than

the proportion reporting being burnt in spring. This, coupled with significant weather variation between February 2007 and February 2008, makes it difficult to determine the influence of the campaign on burning.

1.4 Impact of campaign on behaviours

Tan-seeking and sunburn

The research found that deliberate tanning was lower in February 2008 (29% among teenagers and 39% among young adults) than it had been the previous summer (42% among teenagers and 46% among young adults). This is likely to be at least partly because of the wet weather in many states in February 2008. However, given that the proportion of teenagers who said that they had tried to get a suntan in the last fortnight dropped from 39% in November 2006 to 33% in November 2007 (i.e. when the weather was reasonably consistent), it is probable that the campaign has had some impact on deliberate tanning.

There was a similar pattern of results with burning. Among both teenagers and young adults, fewer reported burning in the last fortnight between February 2007 and February 2008, probably due at least in part to the increased rainfall. However, the incidence of burning among teenagers dropped from 56% prior to the campaign to 48% at the same time the following year. This indicates that the campaign is likely to have produced a positive effect. Even so, there were still over half of teenagers (53%) and nearly two thirds (63%) of young adults who report burning in the last fortnight in February 2008.

Sun protection behaviours

Comparing the baseline and the post-campaign results, there have been significant increases in the target audiences' adoption of sun protection:

- Reported use of **clothing** to protect the skin from the sun has increased for both teenagers and adults. Among teenagers, there was an increase in the reported use of protective clothing after the first phase of the campaign, and further improvements were attained by February 2008. Prior to the campaign, 37% of teenagers said that they usually or always wear clothing that protects their skin when outdoors on a typical summer's day. This increased to 48% by February 2008. Among young adults, the corresponding increase was from 37% to 44%.
- Teenagers' use of **shade** usually or always went from 33% in November 2006 to 42% in February 2008. There was a significant increase in use of shade among 18-24 year olds between November 2007 and February 2008, although the pattern of results over the four surveys suggests there has not been a dramatic change over time.

- Teenagers' and young adults' use of **sunscreen** on the face and body improved between each November and February survey. For example, the proportion of 18-24 year olds reporting that they use sunscreen on the body usually or always when outdoors on a typical summer day went from 38% in the baseline survey to 49% in February 2008. The effect of the campaign and seasonal variation in sunscreen use are confounded, so it is difficult to assess to what extent the campaign has had an impact on sunscreen use.

There have been several significant improvements in the adoption of specific forms of sun protection in various situations. Some of these changes (eg. when there are observed increases between the November and February surveys) may be strongly influenced by the time of year that the data were collected. Nonetheless, there were significant increases in the use of sun protection in specific situations from one November to the next, and/or one February to the next, which provide strong evidence that the campaign has influenced behavioural change. These included:

- a rise in the number of teenagers using sunscreen when at the beach or outdoor pool, from 69% in February 2007 to 75% at the same time the following year.
- an increase in adolescents' and young adults' use of protective clothing at lunchtime. In the baseline survey, 23% of teenagers said that they wore protective clothing at lunchtime. This increased to 29% in February 2007, and persisted through until November 2007 (27%). The figure in February 2008 (31%) also represented an increase from the baseline result. Among young adults, 30% of those surveyed in February 2008 reported wearing protective clothing at lunchtime, which represented at least a four percent increase from each of the previous rounds of research.
- a greater proportion of adolescents who said that they used shade in a range of contexts. Teenagers' use of shade was significantly higher in February 2008 at the beach or outdoor pool, the park, at lunchtime, and at an outdoor café or restaurant than it was in each previous round of research. Specifically, use of shade went from 29% in November 2006 to 37% in February 2008 when at the beach or outdoor pool. During this same time period, it rose from 37% to 46% at the park, 45% to 52% at lunchtime, and 34% to 40% in an outdoor café or restaurant.
- a decline in the proportion of teenagers saying that they adopt no sun protection measures at lunchtime between November 2006 (28%) and November 2007 (24%), and between February 2007 (28%) and February 2008 (23%).
- a drop in the proportion of adolescents saying that they adopt no sun protection measures between November 2006 and November 2007, falling from 39% to 33%.

Skin checks

The campaign appears to have encouraged some adults to have their skin checked, given that there was found to be an increase in the proportion of 18-24 year olds who said that they intend to have their skin checked by a doctor within the next 12 months, increasing from 44% prior to the campaign, to 48% in November 2007 and 49% in February 2008.

1.5 Impact of campaign on knowledge

There were found to be significant increases in unprompted awareness of a range of sun protection methods, particularly sunglasses and shade. Among teenagers, unprompted mentions of sunglasses jumped from 24% to 59% between the first and final surveys, and from 39% to 59% among young adults. Unprompted awareness of shade went from 35% to 53% among 18-24 year olds, and from 26% to 53% among 14-17 year olds. There were also notable improvements in the salience of clothing (from 61% to 80% among teenagers, and 77% to 84% among young adults) and hats (76% to 87% among teenagers and 80% to 87% among young adults).

1.6 Impact of campaign on attitudes

There have been some significant improvements in attitudes targeted by the campaign:

- When asked whether, when used properly, sunscreen is an adequate protection on its own, there was found to be more disagreement with this statement among teenagers in February 2008 compared with each previous survey, and disagreement increased after each media burst among 18-24 year olds.
- After the second phase of the campaign, both teenagers and young adults were found to be less likely to perceive treating skin cancer as simple, than they were in each previous round of research.
- Teenagers were more likely to perceive skin cancer as potentially fatal, comparing the baseline results with the February 2007 results. Further improvements were observed after the second phase of the campaign, with agreement reaching 88% in February 2008, which was higher than each of the previous rounds of research.
- In addition, there was evidence that perceived personal susceptibility to skin cancer increased among adolescents. Specifically, the proportion who disagreed that, "Skin cancers only affect older people who have spent years in the sun" was higher in February 2008, compared with both the baseline and February 2007 survey results.
- After the second phase of the campaign, both key audiences were more likely to reject the idea that it is safe to tan gradually. Specifically, 33% of teenagers and 53% of young

adults disagreed that, "It's safe to tan gradually, as long as you don't get burnt" in the baseline survey. These figures increased to 47% and 54% respectively in February 2008.

- The second phase of the campaign also appears, to some extent, to have communicated a message about the risks associated with cumulative exposure. The proportion of young adults who disagreed that, "Small amounts of sun exposure without protection are healthy and won't lead to skin damage" reached 39% in February 2008, which was significantly more than each previous round (including the 34% disagreement in November 2006). There were also higher levels of disagreement among teenagers in February 2008 compared to November 2007.

The February 2008 survey included a new item about Vitamin D. It was found that 9% of teenagers and 11% of young adults disagreed with the statement, "Even using all the recommended sun protection, I would still get plenty of Vitamin D". For this minority, concerns about Vitamin D deficiency may be a barrier to comprehensive sun protection. The results, where significant proportions neither agreed nor disagreed, also indicate that many may be uncertain about the amount of sun exposure they need to get adequate Vitamin D. However, messages about Vitamin D are very difficult to communicate at a National level, given the vast differences in UV levels across the country.

1.7 Campaign awareness and reactions

Unprompted recall of the campaign TVC was sound, being at least 11% among teenagers and 12% among young adults. In addition, around a sixth of participants described an advertisement which appeared to make reference to some surgical procedure. It is likely that at least some of these were descriptions of the National Skin Cancer Awareness Campaign TVC, such that unprompted recall of the TVC could have been as high as around 30%.

Prompted TVC recall was very high. The results followed a typical pattern, with prompted awareness falling when the advertisement had not been on air for some time, and then building on its previous position after the second phase of the campaign. Hence, prompted awareness reached 94% for 14-17 year olds, and 90% for 18-24 year olds.

Reactions to the TVC continued to be favourable. It was seen as believable, attention-grabbing, informative, and it made the audience think about their risk of developing skin cancer, with these measures in February 2008 being as high as, or higher than, previous rounds of research. Furthermore, around three-fifths agreed that the advertisement prompted them to use more forms of sun protection, and a similar proportion agreed that the advertisement prompted them to use sun protection more often.

In both February 2007 and November 2007, recall of the MCG radio advertisement was higher than the World Champs advertisement, ranging from 23%-40% compared to 18%-35%. The

Stapler radio advertisement achieved similar awareness to the MCG advertisement in the February 2008 survey, with prompted recall of 37% among teenagers and 27% among young adults.

Awareness of the print advertisements was highest for the one headed "There's a lot more to treating skin cancer than removing a mole", reaching 75% for teenagers, and 57% for 18-24 year olds in February 2008. The corresponding figures for "Don't let your time in the sun catch up with you" were 48% and 44%.

1.8 Conclusions and recommendations

Overall, the research results indicate that the campaign has been effective. There have been significant improvements in unprompted awareness of the sun protection methods highlighted in the campaign advertising, as well as increases in sun protection behaviours among the target audiences. Furthermore, there have been some significant improvements in many of the attitudes targeted by the campaign.

Given these positive results, consideration should be given to further investment in sun protection messages. There continues to be a need for greater focus on widely-held views about the safety of tanning, to help bring about further behavioural change, particularly with regard to deliberate tanning. Similarly, despite the fact that there has been some improvement in the target audience's recognition of the risks associated with cumulative exposure, these gains could be built upon if risks associated with cumulative exposure received more emphasis in any future campaigns.

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

RESEARCH CONTEXT

2.1 Background

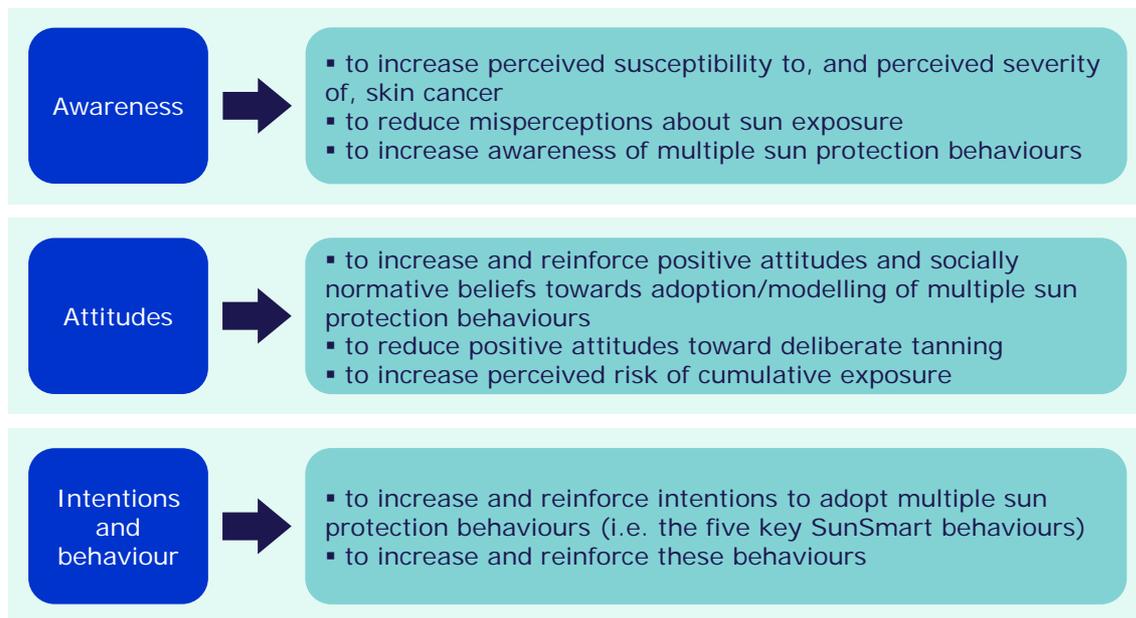
A national awareness campaign

The Australian Government spent more than \$7.0 million on the 2005-07 National Skin Cancer Awareness Campaign, to educate Australians about the importance of protecting themselves against skin cancer. This funding commitment formed part of the Strengthening Cancer Care initiative. To build on the successes of this campaign, the Australian Government committed a further \$11.5 million through until 2008/09.

A national campaign to increase awareness of skin cancer was implemented in Summer 2006/07, primarily to target young Australians, but also to reach parents, carers and health professionals. The campaign sought to raise awareness of the risks and consequences associated with skin cancer, and to increase the social acceptability of sun protection behaviours. The campaign also aimed to encourage parents and carers to facilitate positive behaviours, and help to create a climate in which health professionals could effectively reinforce key messages.

The campaign's primary target audience consisted of teenagers 13–17 years of age and young adults 18–24 years of age; the secondary target audience consisted of parents and carers of children 0–17 years of age; and the tertiary audience was health professionals. The Department elaborated precise communication objectives and key messages for each of these audiences. The list of communication objectives for phase two can be found at Appendix A. In phase two of the campaign, the primary campaign objective was to increase the adoption of multiple sun protection behaviours and focus on the risks associated with cumulative sun exposure. The objectives were soundly informed by previous research and sought to address

key issues related to target audience behaviour, awareness, attitude and intention. A summary of the campaign objectives is illustrated in the following diagram.



Initially, the campaign was launched by the Chief Medical Officer, Professor John Horvath on 19 November 2006. The campaign message aimed to get young people protecting themselves from sun exposure in five ways by seeking shade, wearing protective clothing, putting on a broad-brimmed hat, wearing wrap around sunglasses and applying SPF 30+ sunscreen. The media buy commenced on 19 November 2006 and ran until mid-February 2007 with the following materials specifically targeting youth from 13-24 years of age and parents:

- 30 second television and cinema commercial;
- Radio x 2;
- Print execution for youth (magazine);
- Print execution for parents (magazine);
- Internet; and
- Outdoor advertising - bus shelters and interiors

The media buy also included NESB (radio) and Indigenous (press) advertising.

The Summer 07/08 campaign was launched by Nicola Roxon MP, on Sunday 6 January 2008. The campaign continued to feature the same TVC. In addition to the MCG radio advertisement, and the 'There is a lot more to removing skin cancer than removing a mole' print

advertisement, there were new executions for radio and print advertising. These new executions aimed to broaden the campaign messages to include information about the risks associated with cumulative exposure. Specifically, the 07/08 media buy included the following:

- 30 second television and cinema commercial;
- Radio ('MCG' and 'Stapler');
- Print execution x 3 ('There is a lot more to treating skin cancer than removing a mole', 'Don't let your time in the sun catch up with you', two executions);
- Internet;
- Outdoor advertising - transit and street furniture, and
- Community service announcements, such as those featuring actors from Home and Away.

The media buy also included NESB (radio) and Indigenous (press) advertising.

A selection of stills from the campaign TVC, the print advertisements, and the scripts of the TV and radio advertisements, can be found at Appendix B.

Media context

During both phases of the National Skin Cancer Awareness Campaign, there were other campaigns on air and various messages in the media regarding skin cancer and sun protection. These included:

Summer 2006/07

QLD	Suncorp Metway Sun Protection Campaign	Young Adults
NSW	Tattoo - Skin Cancer – it's killer body art	Teenagers
WA	Don't Cook for Looks	Teenagers

Summer 2007/08

WA	Don't Cook for Looks	Teenagers
WA	Blokes	Men 18-34 years
NSW	The Dark Side of Tanning	Teenagers
VIC	Clare Oliver Community Service Announcement, Brochure & Poster campaign	Young Adults/Solarium Users

Advertising for certain brands of skin care/sun protection products also appeared across both summers. There was also some media attention on the issue of Vitamin D deficiency among Australians. In late 2007, there was increasing media attention on the issue of deliberate tanning, and the death of Claire Oliver (a young woman who developed melanoma) generated significant media coverage and discussion about solarium use and the associated skin cancer risk.

The research program

In January 2006, Eureka Strategic Research undertook qualitative research designed to inform the campaign's development. Knowledge, attitudes, awareness and understanding of sun protection and early detection of skin cancer were explored among adolescents, young adults, parents, adults aged 50 years and over and people who had had a skin cancer removed. This was followed by four stages of concept testing and refinement of the proposed campaign materials.

Eureka Strategic Research was commissioned to undertake quantitative research to evaluate the National Skin Cancer Awareness Campaign. Baseline research was used to obtain pre-campaign measures, and post-campaign research was undertaken in February 2007 to assess the effectiveness of the campaign by measuring changes in the target audiences' attitudes, knowledge and behaviour in relation to skin cancer prevention.

To evaluate the Summer 07/08 advertising, and to monitor the impact of the campaign over time, Ipsos-Eureka Social Research Institute was commissioned to conduct additional quantitative research in November 2007, prior to the second phase of the campaign, and in February 2008.

2.2 Research objectives

The overall aim of this research was to evaluate the effectiveness of the National Skin Cancer Awareness Campaign.

Specifically, the research assessed:

- Campaign awareness;
- Attitudes and knowledge regarding skin cancer;
- Prevention intentions; and
- Prevention behaviour.

The research design used to address these issues is detailed in the following section.

In this section, details of our research design are provided, as well as our rationale for using this methodology.

RESEARCH DESIGN

3.1 Methodology

Online survey

A quantitative survey was conducted over the internet using a sample sourced from an online panel. This methodology was chosen for a number of reasons:

- An online survey methodology allows access to a very large sample cost-effectively.
- An online survey methodology means participants can be presented with visual and audio stimulus material. This is advantageous, because it allows videos, sound bytes and still images from the campaign to be presented to participants.
- The timeframe required to conduct an online survey is relatively short compared to other methodologies.
- It provides an environment where the participant is free to speak their mind, which can be important when asking questions which have a degree of social sensitivity.
- Convenience and better access to participants (i.e. the survey arrives at the participant's desktop and can be completed any time of day or night, at their convenience).
- There are no interviewer, data entry or data editing errors or bias through third parties processing surveys.

The fieldwork was conducted by ACNielsen, which manages an online panel called 'Your Voice'.¹ Crucially, this panel is comprised of those aged 14 years and above. Hence, we were able to send survey invitations directly to teenagers, rather than having to recruit them via their parents. (There was also no need to obtain parental consent, because this is already in place for panel members to participate in research surveys.) Those who qualified and completed the survey received an incentive for their participation, redeemable for goods and services and approximately equivalent to two dollars.

Fieldwork dates

Fieldwork was conducted in four survey waves:

- a **baseline survey** prior to the launch of the first phase of the campaign in November 2006 (fieldwork dates 13th to 17th November 2006);
- towards the end of the first phase of the campaign (and after the conclusion of the Summer 2006/07 TV advertising) in **February 2007** (fieldwork dates 12th to 16th February 2007);
- prior to the second phase of the campaign in **November 2007** (fieldwork dates 13th to 19th November 2007), and
- after the conclusion of the free-to-air television advertising over Summer 2007/08, in **February 2008** (11th to 15th February 2008)

It is likely that burning, tan-seeking, and the adoption of sun protection are all influenced by the weather. The questionnaire asked participants about whether they had deliberately sought a tan in the last fortnight, and also whether they had experienced any reddening of the skin after being in the sun during the last two weeks. Accordingly, not only was weather information recorded for the fieldwork periods themselves, but also for the two weeks prior each time. The (unweighted) average national temperature across capital cities during the baseline fieldwork, and the two weeks beforehand, was 19.0°C. This was lower than the temperature during the February 2007 fieldwork and preceding fortnight, where the average temperature was 23.4°C. In November 2007, the average national temperature across capital cities during the fieldwork period and the fortnight beforehand was 20.5°C, which was similar to the November 2006 average temperature. Again, the average national temperature across capital cities was higher in February 2008 compared with November 2007, at 23.0°C.

¹ ACNielsen supplemented its "Your Voice" panel with externally supplied sample, to meet some of the hard-to-reach quotas. ACNielsen, on its own initiative, selected another online panel which had comparable structure and incentives schemes.

It is also worth noting the amount of rainfall which occurred during each of the fieldwork periods and the preceding fortnights. In November 2006, the average rainfall across Australian capital cities was 1.8mm per day during and just prior to the fieldwork period. The following year, the average was 2.4mm per day during the November fieldwork and the two weeks prior. Although this appears to be slightly more rainfall, there generally appeared to be fewer days on which it rained in November 2007. For example, in Sydney in November 2006, the ratio of wet to dry days was 0.63, compared with 0.43 in November 2007. Hence, overall, it appears that the weather in November 2006 did not differ greatly from November 2007, in terms of the opportunities for exposure to the sun.

In contrast, February 2008 was substantially wetter than February 2007. In February 2007, the average rainfall across all capital cities was 2.5mm, compared with 5.6mm in February 2008. Furthermore, there were many more wet days during and just prior to the fieldwork in February 2008 than there were in the previous February. For example, looking at the period from the 29th January to 16th February 2007, Brisbane experienced nine wet days, Sydney experienced six, and it rained on three days in Perth. There were no wet days in Melbourne or Adelaide. During the comparable period in 2008, Brisbane experienced 13 days with rain, Sydney had 12, and Melbourne had eight. Perth and Adelaide were quite dry, with only two and one days of rain respectively. The fact that it was much wetter in February 2008 in many capital cities compared with February 2007 needs to be taken into account when interpreting the results. Further factors, such as the extent to which sunny periods occurred on weekends, and during peak UV periods, in each of the capital cities, might also exert some influence, as could the weather conditions outside the capital cities.

Questionnaire

The questionnaire (included at Appendix C) was developed in close consultation with the Department of Health and Ageing, to ensure that information needs were prioritised and appropriately addressed. Care was taken to ensure that any changes in the questionnaire were minimised, to allow comparability over time. Specifically, the questions for parents were not included for the November 2007 and February 2008 surveys, and the stimuli were changed to reflect the inclusion of new executions in phase two of the campaign.

A sample of the panel, stratified by age and gender, was selected, and potential participants were sent an email inviting them to complete the survey. The average survey durations were 8.8 minutes for the baseline survey and around 14-15 minutes for each of the subsequent surveys, the extra time needed for prompted recall of, and reactions to, the elements of the campaign.

Obtained sample

The final sample is illustrated in the Table 3.1.1.

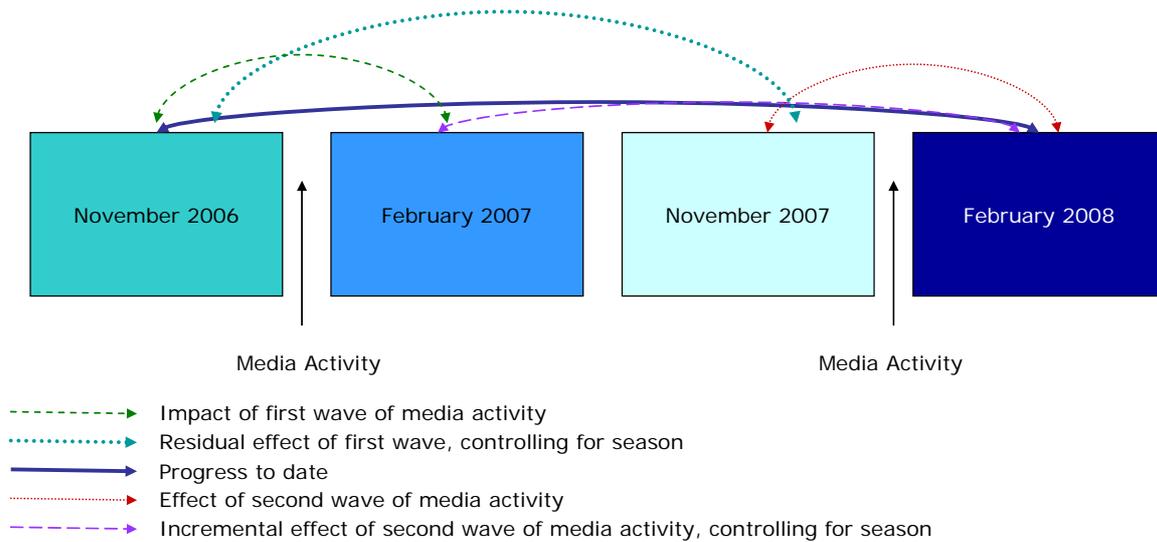
Table 3.1.1 Sample size

	Nov '06	Feb '07	Nov '07	Feb '08
Total sample size	3,082	3,097	1,999	2,021
Teenagers aged 14-17 years	1,105	1,096	993	1,010
Young adults aged 18-24 years	1,120 (including 120 parents)*	1,123 (including 123 parents)*	1,006	1,010
Parents of children aged 0-17 years (parents 18 yrs+)	977	1,001	Nil	Nil

Statistical analysis

Statistical tests were undertaken to compare the results across the four surveys. Five separate sets of comparisons have been done, as illustrated in Figure 3.1.

Figure 3.1.1 Statistical comparisons



For categorical data, chi-square tests have been used. For ordinal data, Kendall's tau-b has been employed. In the case of interval data, ANOVA tests have been undertaken to compare means, as appropriate.

It is worth noting that using sub-samples of 1,000 yields a 95% confidence interval of, at most, just over $\pm 3\%$ for a stand-alone survey. When comparing between surveys or segments, a sample of 1,000 yields a maximum confidence interval of $\pm 4.4\%$ at the 0.05 level. These confidence intervals are conservative, because they are based on a proportion of 50%. Larger or smaller proportions will yield a narrower confidence level.

The response rate for each survey is shown in the following table.

Survey wave	Response rate
November 2006	12.9%
February 2007	10.3%
November 2007	8.4%
February 2008	11.6%

These rates are lower than a typical response rate for online surveys. That said, in all forms of survey research, the response rate among younger age categories is generally lower than for older age categories. It is also worth noting that, when response rates are calculated for telephone surveys, these are based on the number of people who agreed to participate in the survey as a proportion of all those with whom contact was made. It is impossible to calculate the analogous figure for online research. The response rate represents the number of people

who participated before the quotas were filled, as a percentage of all those who were sent an invitation. (The comparable percentage in telephone surveys would be the number who agreed to participate as a percentage of all numbers dialled.) Many of these invitation emails were likely to have not been opened before the quotas were filled. This is not to say that these people would necessarily have refused to participate in the survey.

During the analysis, the data were weighted to reflect the geographical distribution of Australia, and also to correct for any gender bias within each target audience.

3.2 Sample characteristics

The following figures show the sample characteristics of the unweighted sample. There were no differences over time in the demographics, except for age and location.

Figure 3.2.1 shows that the sample was reasonably balanced in terms of gender for each target audience. Nevertheless, the analyses were weighted to correct for the slight gender imbalance.

Figure 3.2.1 Age and gender

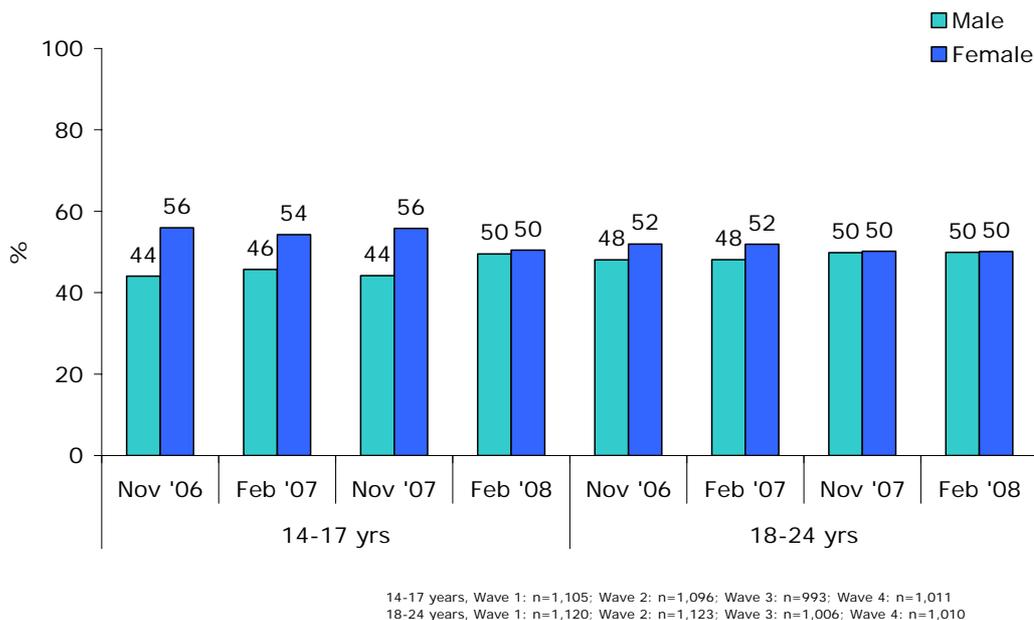
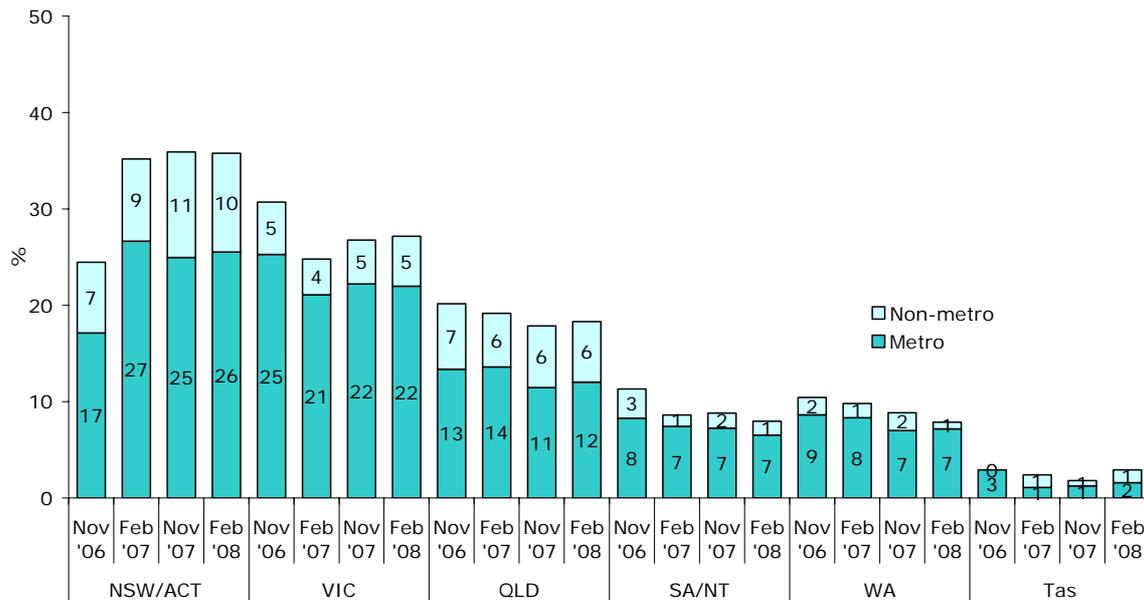


Figure 3.2.2 shows the distribution of the four survey samples, across metropolitan and non-metropolitan areas. In the baseline survey, there was an overrepresentation of people living in Melbourne, and an under-representation of those from Sydney. Accordingly, the data have been weighted to correct for this imbalance, and to reflect the distribution of the Australian population.

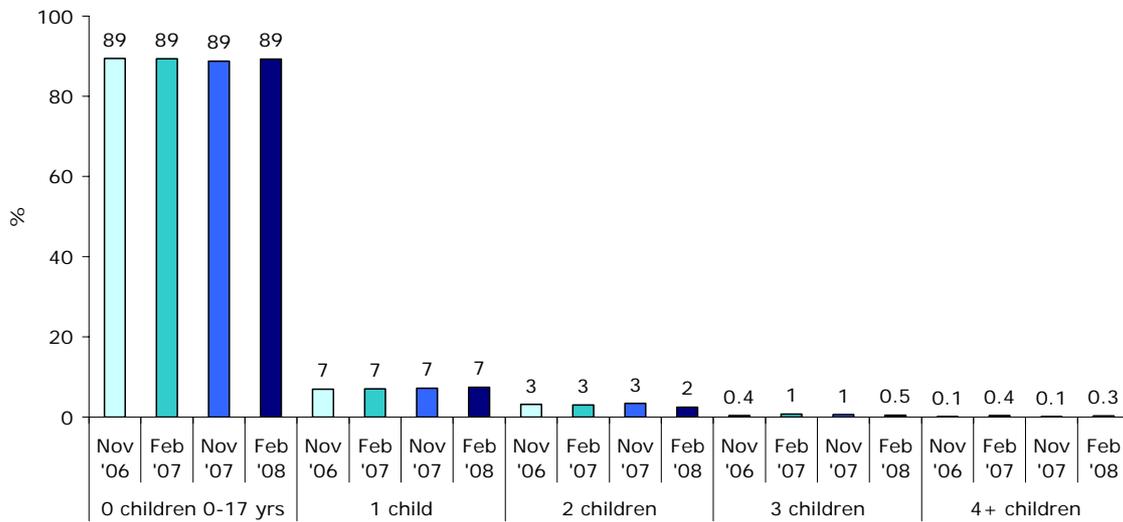
Figure 3.2.2 Location



14-24 year olds, Wave 1: n=2,224; Wave 2: n=2,219; Wave 3: n=1,999; Wave 4: n=2,021

All participants were asked whether they were a parent or guardian of a child or children aged zero to 17 years. The results (for 18-24 year olds) are shown in Figure 3.2.3.

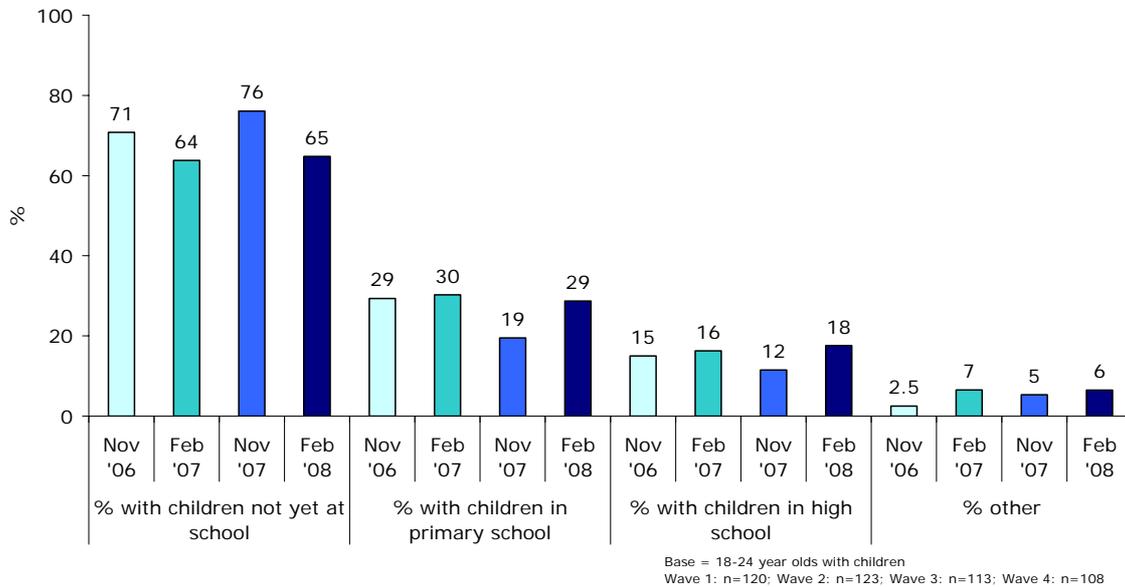
Figure 3.2.3 Number of children



Base = 18-24 year olds
 Wave 1: n=1,120; Wave 2: n=1,123; Wave 3: n=1,006; Wave 4: n=1,010

Those with children under the age of 17 years were also asked to indicate how many of their children were at various schooling stages. The data are shown in Figure 3.2.4.²

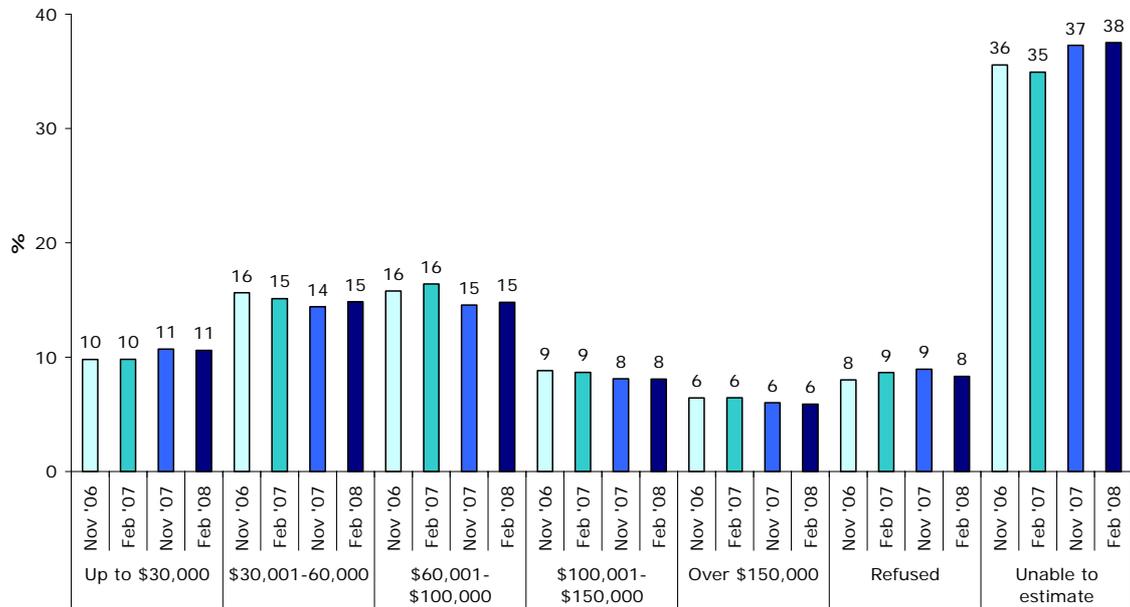
Figure 3.2.4 Number of children at school age



² The "other" category would include those children who are 17 years and under, and have left school. It would also include those in their first year of university.

The income distribution of the sample is shown in Figure 3.2.5. A large proportion of participants were unable to estimate their household's income, reflecting the fact that around half of the sample was comprised of teenagers.

Figure 3.2.5 Household income



14-24 year olds, Wave 1: n=2,225; Wave 2: n=2,219; Wave 3: n=1,999; Wave 4: n=2,021

Those aged 16 years and above were asked about their employment status. The results are shown in Figure 3.2.6.

Figure 3.2.6 Employment status

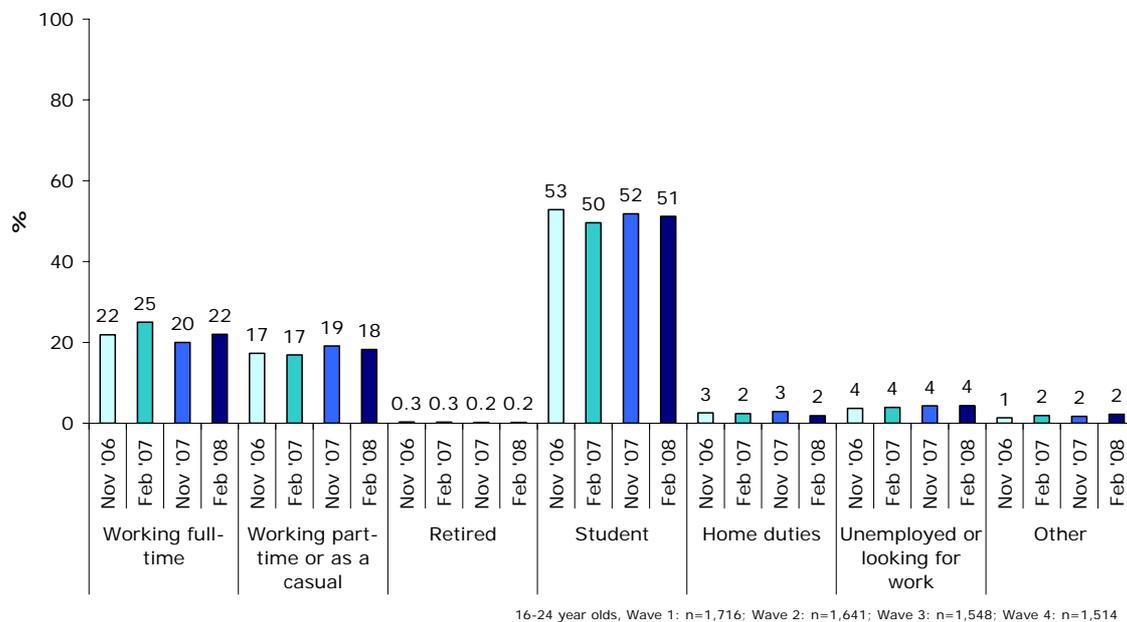
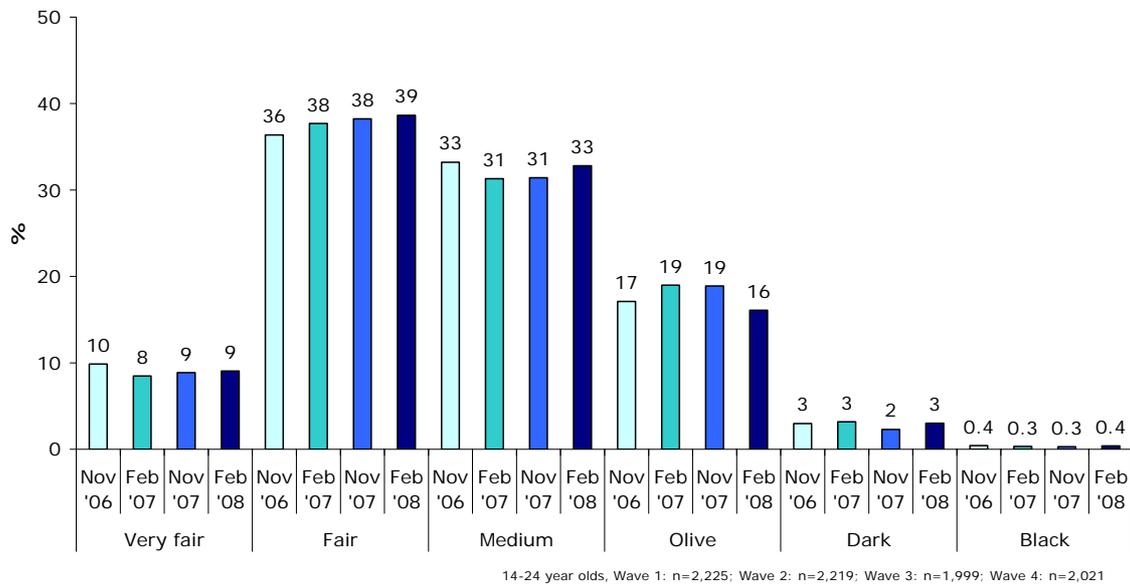


Figure 3.2.7 shows that just under half of those in the sample described themselves as very fair or fair.

Figure 3.2.7 Skin colour when not tanned



This section provides a detailed report of the findings from each of the four rounds of research.

RESEARCH FINDINGS

This section includes findings relating to each of the following areas:

- Behaviours and intentions, including tan-seeking, frequency and intensity of sunburn, details of sun protection behaviours adopted by the target audiences, and skin examinations.
- Knowledge and awareness of sun protection, including unprompted recall of the five sun protection methods highlighted in the National Skin Cancer Awareness Campaign, and the perceived effectiveness of sun protection methods.
- Attitudes relevant to sun protection, including perceived severity of skin cancer, perceived personal susceptibility to skin cancer, and a range of other attitudes specifically targeted in the campaign.
- Advertising awareness and reactions, including survey participants' beliefs about the impact of the campaign on their behaviours.

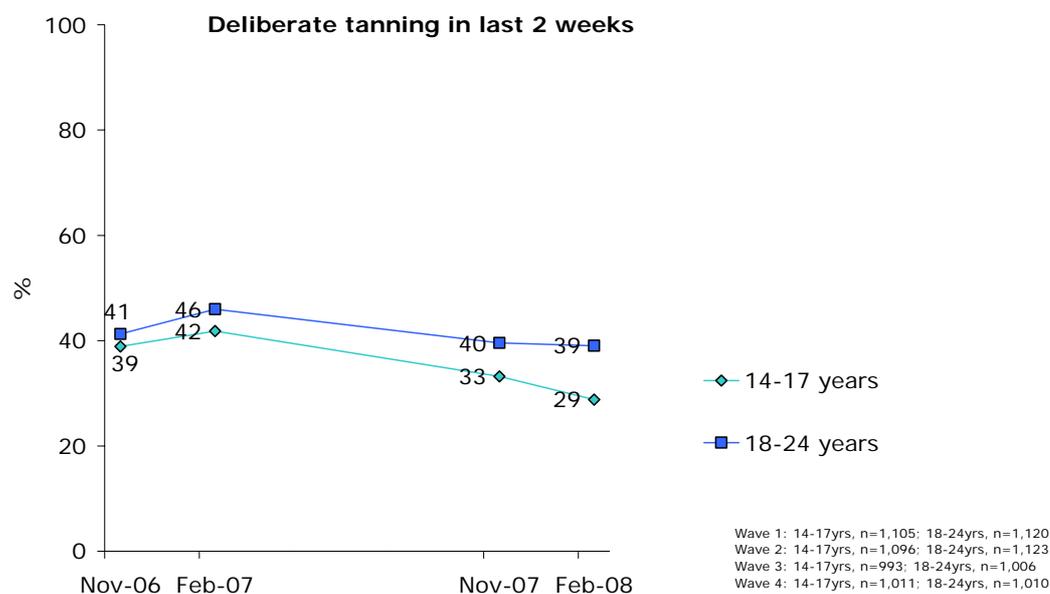
In each section, the results are presented for adolescents and young adults, the key target audiences for the campaign. Any statistically significant differences identified are noted throughout.

4.1 Behaviours and intentions

Tan seeking

Participants were asked whether they had tried to get a suntan at all within the last two weeks. The results for 14-17 year olds and 18-24 year olds, for each survey, are shown in Figure 4.1.1.

Figure 4.1.1 Deliberate tanning in last two weeks



Prior to the first phase of the campaign, in November 2006, around two-fifths of the key target audiences reported deliberate tanning. As can be seen, the proportion of teenagers that said that they had tried to get a suntan within the last two weeks was 29% in February 2008. Indeed, among teenagers, there was found to be a significant decrease in deliberate tanning comparing the February 2008 data with each of the previous rounds. It is likely that this is significantly influenced by the fact that February 2008 was particularly wet. However, it was also found that the proportion of teenagers seeking a tan dropped significantly from 39% in November 2006, to 33% in November 2007. Since the weather in November 2006 and 2007 was similar, this result suggests that the campaign may have had some residual impact on tanning behaviour among teenagers.

Looking at 18-24 year olds, there was a significant increase in deliberate tanning, from 41% in November 2006 to 46% in February 2007. In the absence of the campaign, it is possible that a greater proportion of people would deliberately try to acquire a suntan in February than in November. Certainly, those aged 18-24 years who are at university would have been on

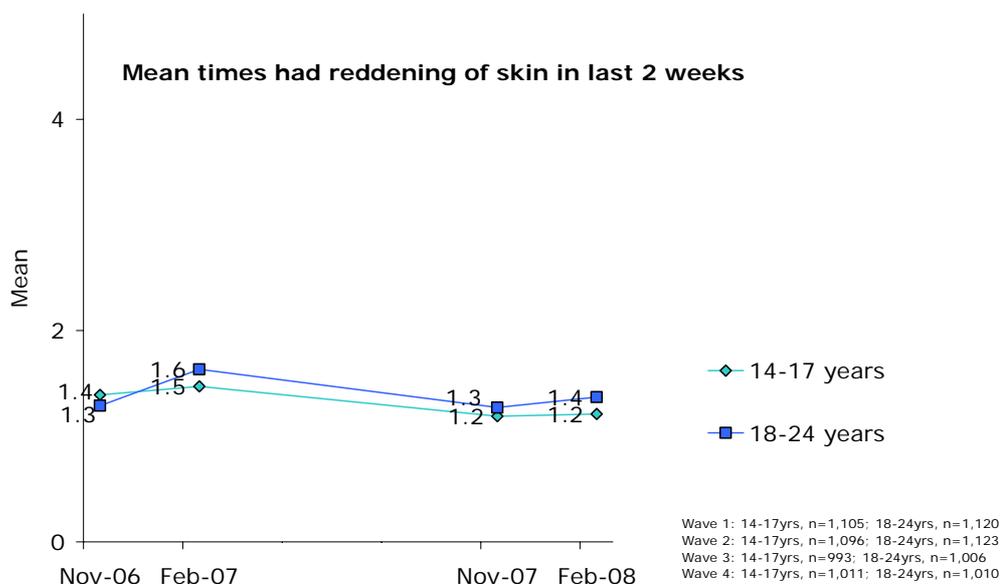
holidays during February, but probably not during the two weeks prior to the fieldwork conducted in November. Therefore, rates of tanning may have been higher because people were more likely to be on holidays, and so had more leisure time. In addition, on average, the temperature was higher during the two weeks prior to the February 2007 survey than it was during the two weeks prior to the baseline survey, and it is probable that deliberate tanning is more likely to occur when the weather is warmer. It is possible that, if the campaign had not been aired, the proportion reporting tan-seeking in February 2007 may have been even larger than that found in the research.

Comparing the February 2007 data with the February 2008 data, there was a significant decrease in the proportion of 18-24 year olds saying that they tried to get a suntan, falling from 46% to 39%. It is possible that the campaign may have had an impact on tanning behaviour. However, it is difficult to separate the potential impact of the campaign from the influence of the weather. Given there was more rain in February 2008 in most capital cities, one could expect that deliberate tanning would have been lower than in February 2008 than in the previous February.

Sunburn

The survey asked participants to specify how many times in the last two weeks they had experienced any reddening of the skin after being in the sun. The averages for each survey are shown in Figure 4.1.2.

Figure 4.1.2 Mean times had reddening of skin after being in the sun in the last 2 weeks.

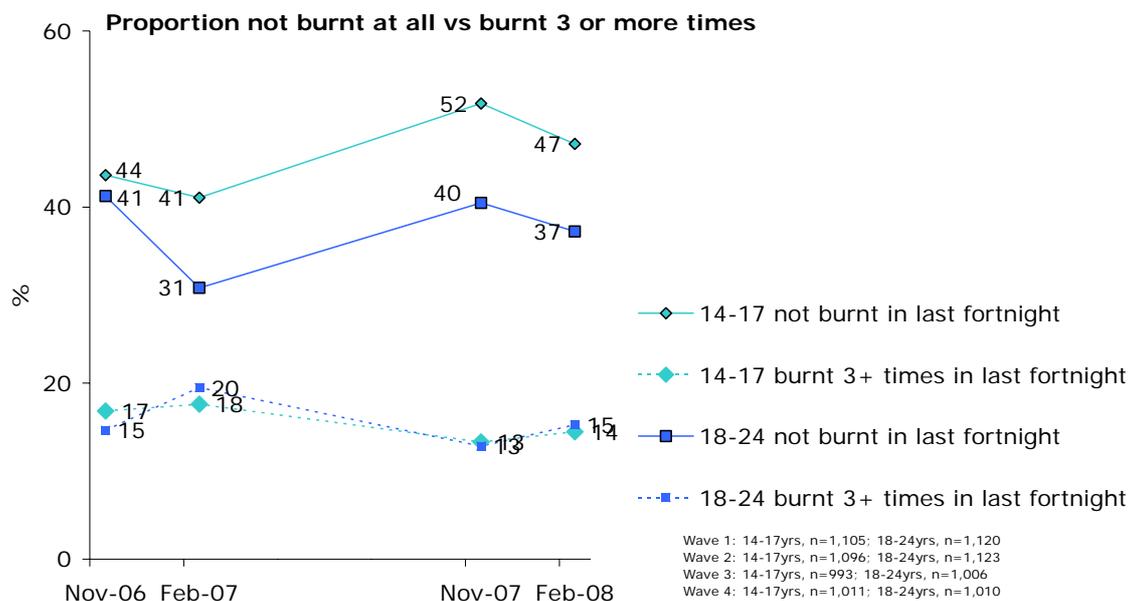


Among teenagers, the mean number of times that they said they had been burnt during the last fortnight was 1.2 in February 2008, which was significantly lower than the baseline result (1.4) and the February 2007 result (1.5). Again, this is likely to be at least in part because of the amount of rain in February 2008. However, the average number of times that teenagers reported burning dropped between November 2006 and November 2007, from 1.3 to 1.2 times, suggesting that the campaign may have had some positive effect.

Among 18-24 year olds, there was an initial increase in the average reported times burnt, rising from 1.3 times in November 2006 to 1.6 times in February 2007. Conversely, the incidence of burning was found to be lower in February 2008 (1.4) compared with February 2007. These changes would be consistent with changes in the weather.

The data have also been analysed to determine what proportion of each of the target audiences had not been burnt at all during the preceding fortnight, and what proportion had been burnt three or more times in that period. The results are shown in Figure 4.1.3.

Figure 4.1.3 Frequency of reddening of the skin after being in the sun during the last fortnight



Prior to the first phase of the campaign, the proportion of teenagers who indicated that they had not been burnt in the last fortnight was 44%. This proportion increased significantly to 52% in November 2007. Consistent with this, the proportion of 14-17 year olds reporting being burnt three or more times reduced from 17% in November 2006 to 13% in November 2007.

There were more teenagers in the February 2008 survey who said that they had not been burnt at all in the last fortnight (47%) than there were in the February 2007 survey (41%). It was also found that the proportion of teenagers who had not been burnt decreased between November 2007 and February 2008. This is likely to be due to seasonal factors.

Among 18-24 year olds, there was an initial drop in the proportion who said that they had not been burnt during the last fortnight, falling from 41% in November 2006 to 31% in February 2007. Again, seasonal variation in the proportion of people getting sunburnt should be expected, and it is difficult to determine whether the first phase of the campaign reduced the incidence of burning that would be typical during February. The proportion of 18-24 year olds who were not burnt in the last fortnight increased between February 2007 and February 2008. Similarly, there was a decrease in the proportion reporting being burnt three or more times between February 2007 and February 2008. Again, this may be because there was more rainfall in February 2008.

Regardless of whether participants reported being sunburnt in the last fortnight, they were then asked where they were, and what they were doing, last time they experienced any reddening of the skin after being in the sun. Despite being asked to answer both parts of the question, several participants only answered one component. Some of the responses were not useful, such as people replying with a suburb location when asked "Where were you?" There are therefore limits to the utility of this question for a tracking exercise.

Because of the variety of answers provided, the responses were analysed using an extensive codeframe. Rather than showing all the data for each target audience for each of the four surveys, Table 4.1.1 on the following page shows the top 3 responses to the question "where were you and what were you doing last time you experienced reddening of the skin after being in the sun?"

Table 4.1.1 Activities and location of last incidence of sunburn

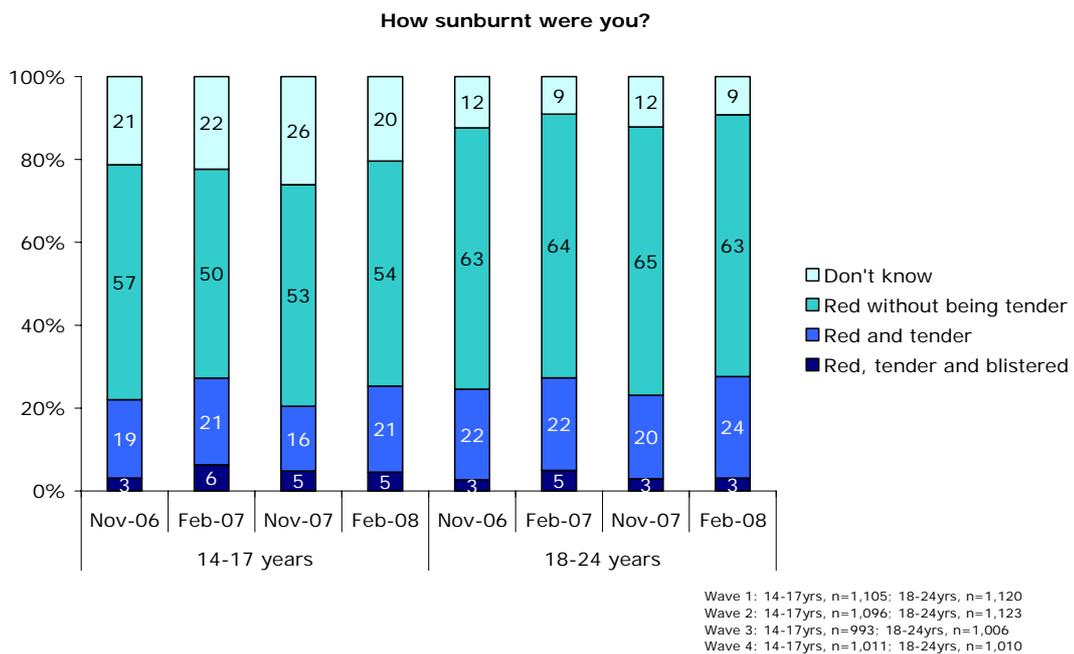
	Where were you?							
	November 2006		February 2007		November 2007		February 2008	
14-17 years	Beach / Pool	36%	Beach / Pool	40%	Beach / Pool	34%	Beach / Pool	49%
	Home/friend's house	12%	Outdoors "in shade"	12%	Other	13%	Don't know	14%
	School/university	10%	On the water/harbour	7%	Don't know	9%	Park/sportsground	8%
18-24 years	Beach / Pool	30%	Beach / Pool	31%	Beach / Pool	31%	Beach / Pool	42%
	Home/friend's house	13%	On the water/harbour	11%	Home/friend's house	12%	Home/friend's house	12%
	Outdoor event/entertainment	13%	Outdoors "in shade"	9%	Driving/in transit	9%	Don't know	9%

	What were you doing?							
	November 2006		February 2007		November 2007		February 2008	
14-17 years	Playing sport/exercising (on land)	23%	Swimming	40%	Swimming	17%	Swimming	25%
	Swimming	17%	Playing sport/exercising (on land)	11%	Playing sport/exercising (on land)	17%	Not specified	21%
	Relaxing	14%	Other	8%	Not specified	11%	Playing sport/exercising (on land)	15%
18-24 years	Driving/in transit - getting to and from places	16%	Swimming	33%	Playing sport/exercising (on land)	17%	Swimming	17%
	Playing sport/exercising (on land)	16%	Relaxing	11%	Swimming	13%	Playing sport/exercising (on land)	14%
	Swimming	13%	Other	10%	Not specified	11%	Not specified	13%

These results show, not surprisingly, that when asked in February about the last time they were sunburnt, participants were more likely to report that they had been burnt while participating in a water activity.

The results for the reported intensity of participants' most recent burn is shown in Figure 4.1.4. The analysis revealed that the intensity of the most recent burn increased for 14-17 year olds between the baseline and the February 2007 results. There were no other significant changes across the four surveys.

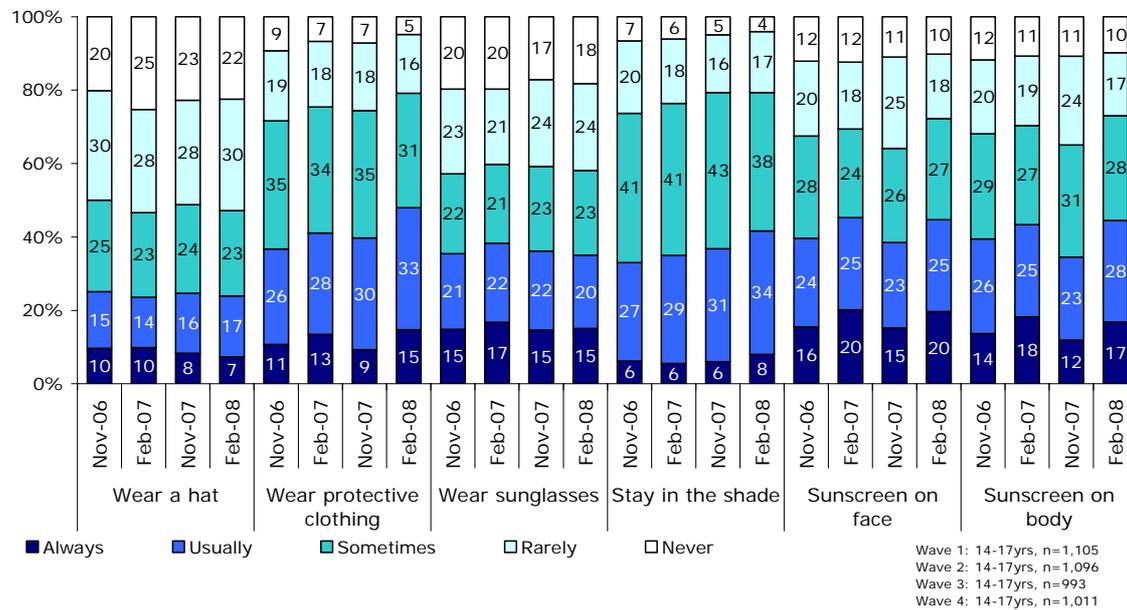
Figure 4.1.4 Intensity of most recent burn.



Sun protection behaviours

In each of the surveys, data was collected on the frequency with which participants adopt sun protection behaviours when outdoors on a typical summer day. The results have been analysed for each of the target audiences. Figure 4.1.5 shows the findings relevant to 14-17 year olds.

Figure 4.1.5 Sun protection behaviours (14-17 years)



Across all forms of sun protection, the proportion of teenagers indicating that they use them either always or usually when outdoors on a typical summer day was less than 50%. As can be seen, sunscreen and sunglasses are the most likely methods to be adopted always by teenagers. Even so, at least one in six reported that they never wear sunglasses. This group was also less likely than young adults to use shade.

In February 2007, a quarter (25%) of teenagers reported that they never wear a hat. Indeed, there was a significant decrease in the frequency with which teenagers reported wearing a hat, comparing the baseline and February 2007 results. The reason for this finding is unclear, particularly given that there were no other significant changes across the surveys in how frequently teenagers said that they wore a hat.

After the first phase of the campaign, there was an increase in reported use of protective clothing. In addition, comparing the February 2008 data with the results from each of the previous rounds of research, there was found to be a significant increase in the frequency with which teenagers reported that they wore clothing that protects the skin.

There was not found to be any significant change in the frequency with which teenagers wear sunglasses.

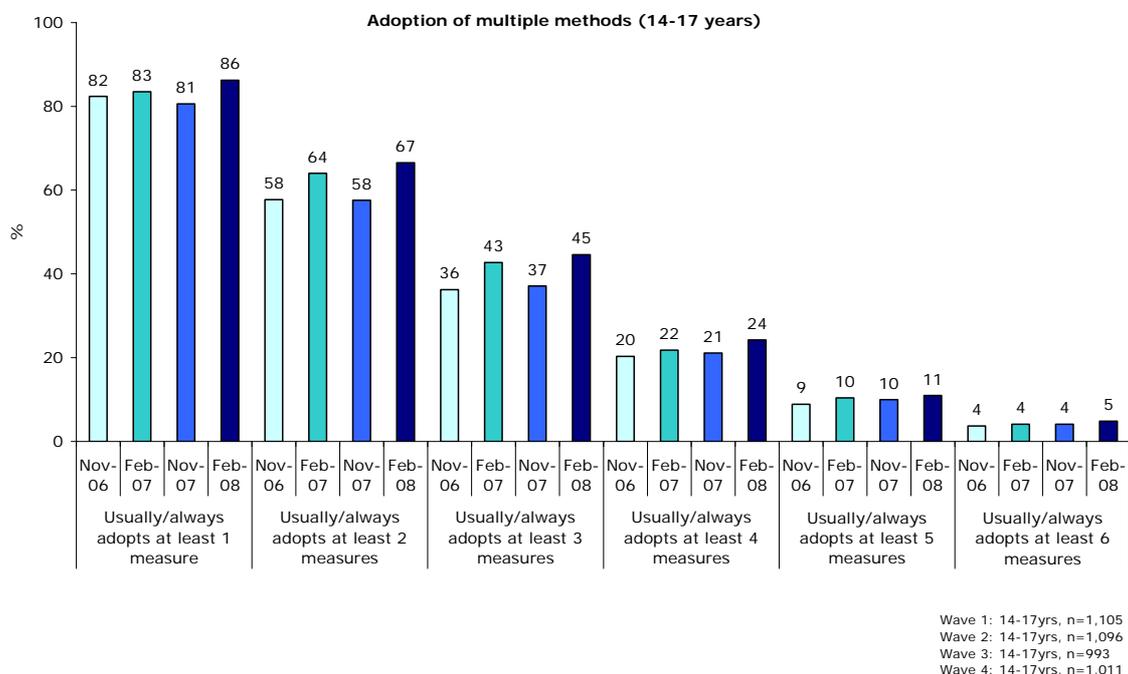
The results for shade improved between November 2006 and November 2007, and this result was sustained in the February 2008 data. In addition, teenagers were more likely to use shade in February 2008 compared to February 2007.

Looking at teenagers' use of sunscreen on the face, there was found to be a significant increase between the baseline and the February 2007 results. Similarly, there was an improvement between the November 2007 and February 2008 results, and the February 2008 results show greater use of sunscreen on the face compared with the November 2006 data. This means that use of sunscreen improved after each burst of media activity, but the results primarily suggest that sunscreen use is more widespread during summer than it is during spring.

There was found to be the same pattern of results for sunscreen on the body. That is, there was a significant increase in use between the baseline and the February 2007 results, and the February 2008 results showed improvement compared with the November 2007 and November 2006 results.

An analysis was undertaken to determine whether there had been an increase in the total number of sun protection measures adopted usually or always when outdoors on a typical summer day. The results for 14-17 year olds are shown in Figure 4.1.6.

Figure 4.1.6 Adoption of multiple methods of sun protection among 14-17 year olds

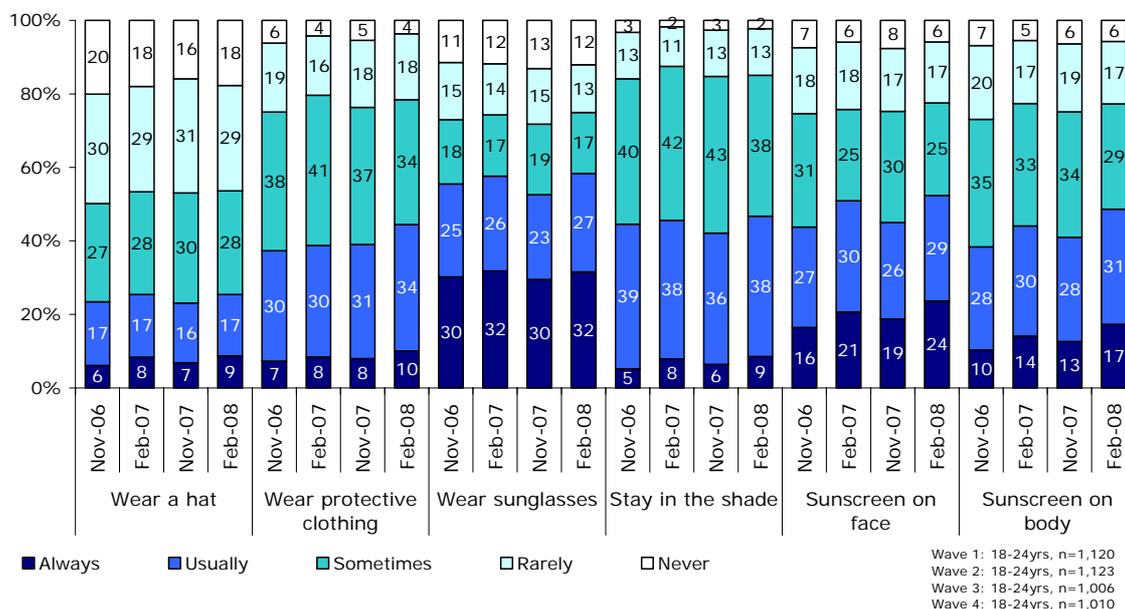


As can be seen, prior to the first phase of the campaign, 36% of teenagers indicated, for at least three forms of sun protection, that they adopted these usually or always. The

corresponding figure in the February 2007 survey was 43% and 45% in February 2008. Overall, there was found to be a significant increase in the average number of sun protection methods adopted by 14-17 year olds usually or always, when comparing the November results with the February results. Specifically, the average number was 2.1 in the baseline survey, 2.3 in the February 2007 survey, 2.1 in the November 2007 survey, and 2.4 in the February 2008 survey. These results may indicate that the campaign improved adoption of multiple methods of sun protection. However, it is also possible that they reflect seasonal variation in teenagers' use of sun protection.

Figure 4.1.7 shows the frequency with which 18-24 year olds reported that they use the various methods of sun protection. Again, consistent adoption of sun protection was quite poor. With the exception of sunglasses and wearing sunscreen on the face, fewer than half of all 18-24 year olds reported always or usually using the various forms of sun protection when outdoors on a typical summer day. As can be seen, sunglasses and sunscreen were the most widely adopted measures for this group, which is consistent with the findings for 14-17 year olds.

Figure 4.1.7 Sun protection behaviours (18-24 years)



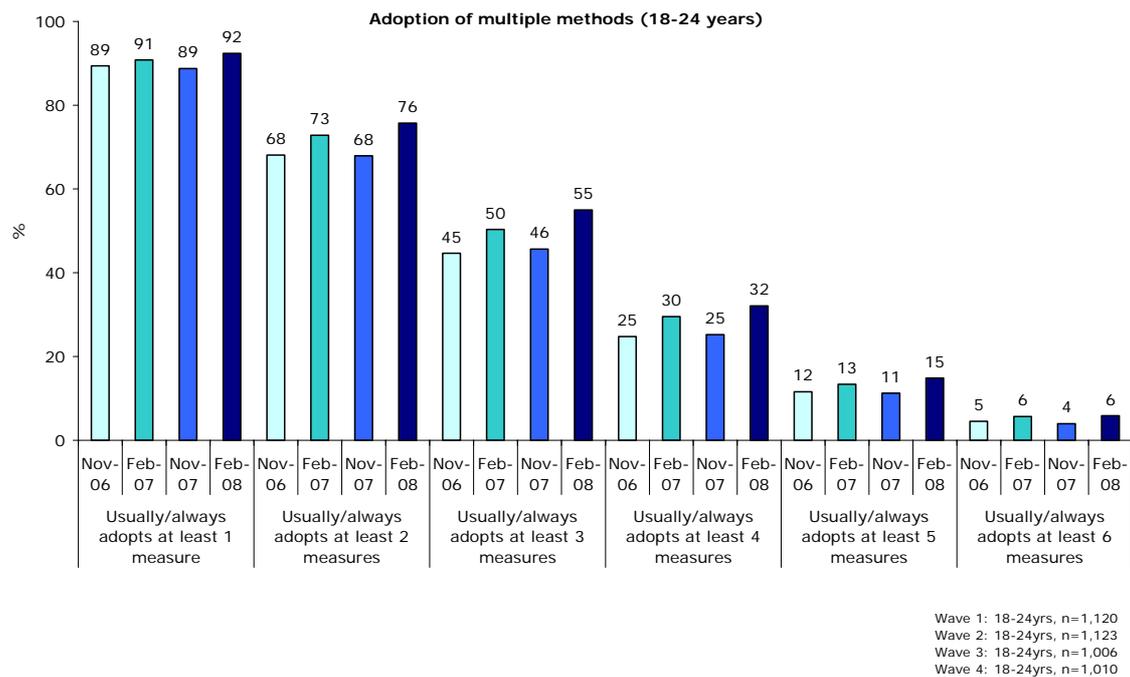
There were no significant changes in hat wearing among young adults, nor was there any significant change in the frequency with which 18-24 year olds wear sunglasses.

Comparing the February 2008 data with each of the November surveys, there was found to be a significant increase in the proportion of young adults wearing clothing that protects the skin.

The results show a significant increase in the frequency of sunscreen use (both on the face and the body) among 18-24 year olds when comparing the results between the baseline and the February 2007 survey. Similarly, there was an increase in sunscreen use between November 2007 and February 2008, and the February 2008 results also represented improvement on the baseline figures.

Overall, the adoption of multiple methods of sun protection was higher among 18-24 year olds, than among teenagers. In the baseline survey, the proportion of young adults who indicated, for at least three of the sun protection measures, that they adopted these usually or always was 45%. After the first phase of the campaign, this proportion rose to 50% in February 2007 and 55% in February 2008. The average number of sun protection methods adopted usually or always by 18-24 year olds increased significantly between the November and the February surveys. Specifically, it rose from 2.4 in November 2006 to 2.6 in February 2007, and from 2.4 in November 2007 to 2.8 in February 2008. (The apparent increase between February 2007 and February 2008 was not quite significant).

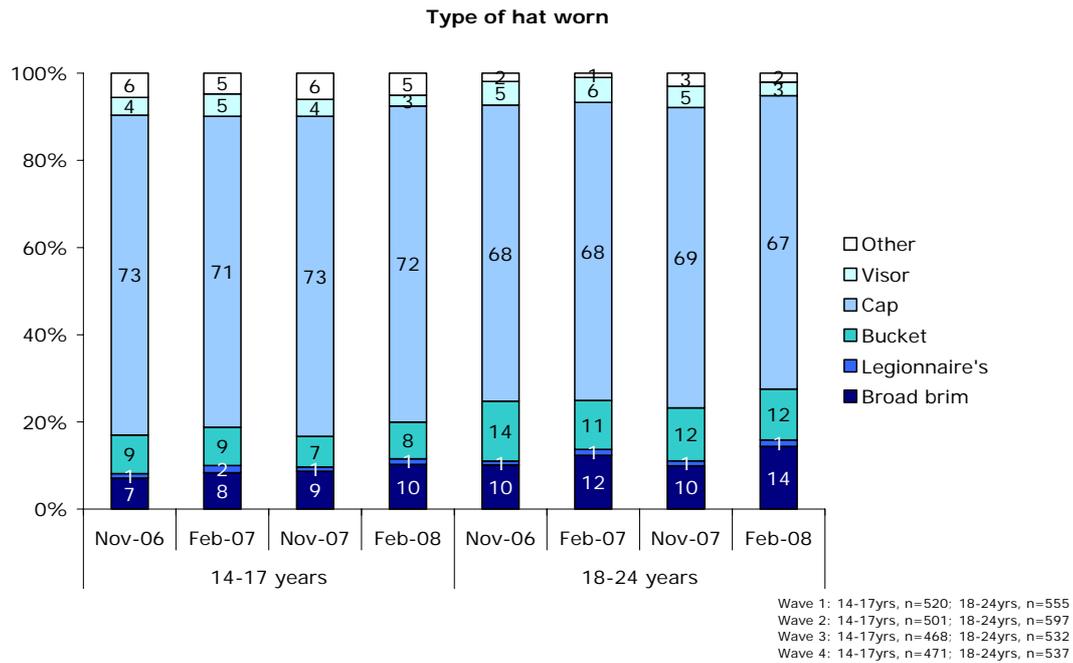
Figure 4.1.8 Adoption of multiple methods of sun protection among 18-24 year olds



Type of hat worn

The survey collected information from those who reported wearing a hat at least sometimes about the type of hat that they usually wear. The results are shown in Figure 4.1.9. A cap without a flap at the back was the most commonly worn hat among the primary target audiences.

Figure 4.1.9 Type of hat worn



Among those who wore a hat at least sometimes, there were no significant differences across the four surveys in the type of hat worn.

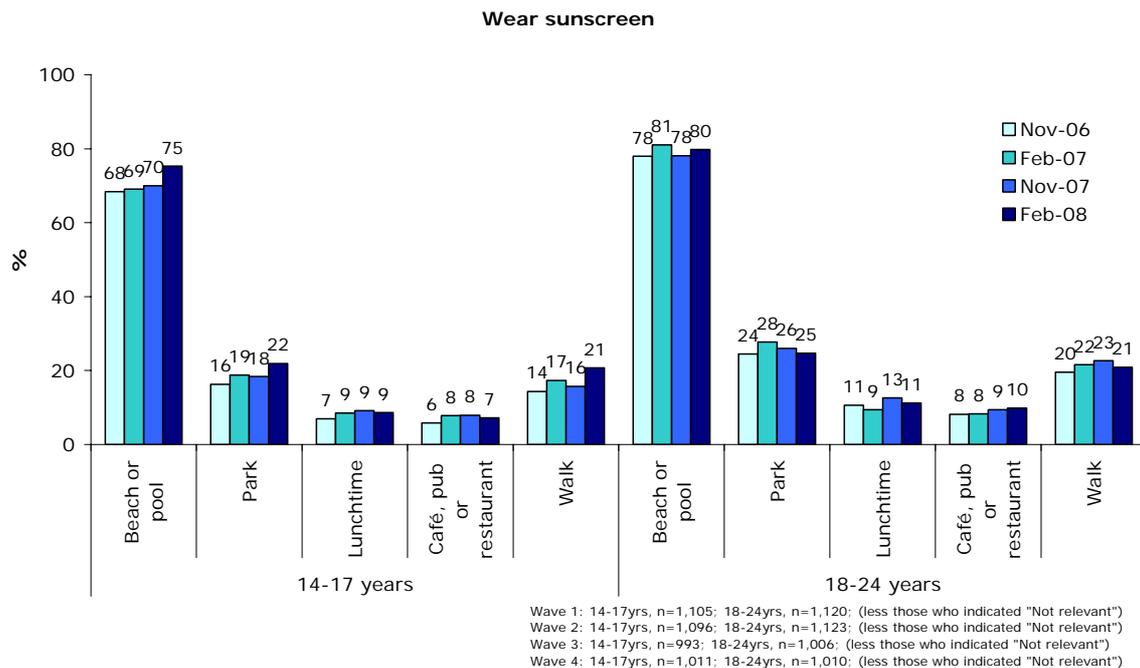
Sun protection behaviours in specific contexts

The questionnaire included items designed to measure the adoption of various sun protection methods in different contexts. The results are shown in the following series of charts. A summary of the significant results for each of the target audiences is also provided.

Figure 4.1.10 shows, for each of the target audiences, the proportion of participants who indicated that they wear sunscreen in various situations.

Sunscreen was most likely to be worn at the beach or outdoor pool, but it was not universally adopted, with reported use ranging from 68% to 81% for this context. Conversely, it was found to be least likely to be worn at lunchtime, or while at an outdoor café, pub or restaurant.

Figure 4.1.10 Adoption of sunscreen in specific contexts



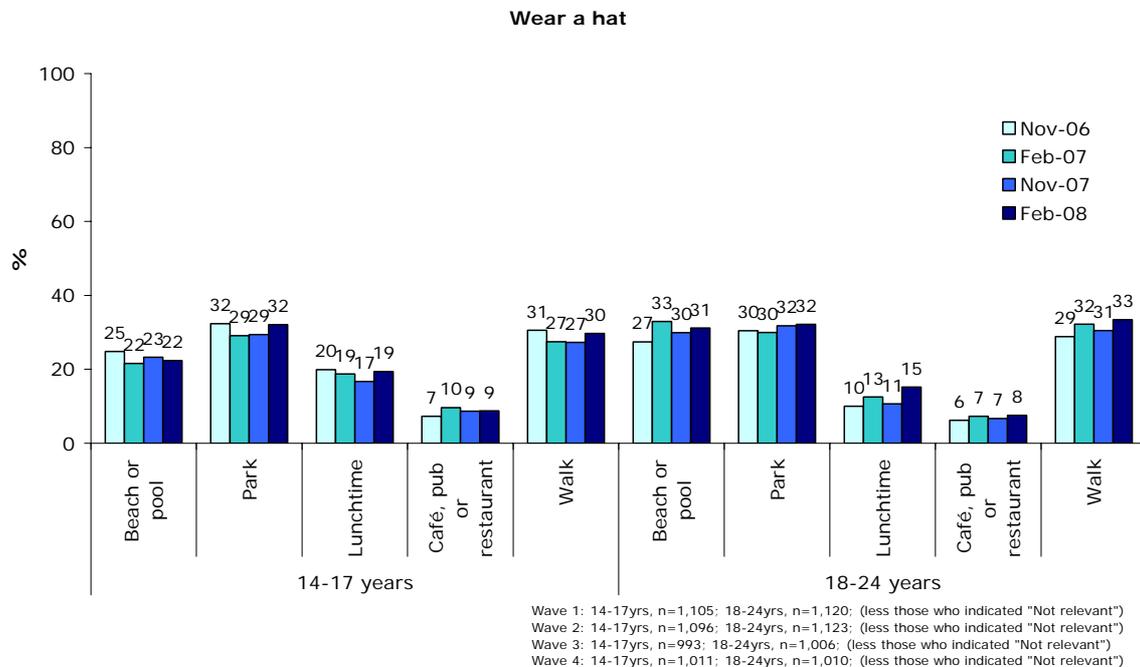
Among 14-17 year olds, there was an increase in sunscreen use:

- at the beach or outdoor pool, comparing the February 2008 data with each previous round of research
- at the park, increasing from 16% prior to the first phase of the campaign, to 22% in February 2008
- on a walk, comparing each pre-post media measure and comparing the baseline data with the February 2008 results

Among young adults, there was a slight increase in sunscreen use at the beach or outdoor pool (78% to 81%), and at the park (24% to 28%), comparing the baseline and the February 2007 measures.

Figure 4.1.11 shows that no more than one in three young people reported wearing a hat in any of the specified situations. Across the samples, the results show that a hat was most likely to be worn at the park, on a walk, or at the beach or outdoor pool.

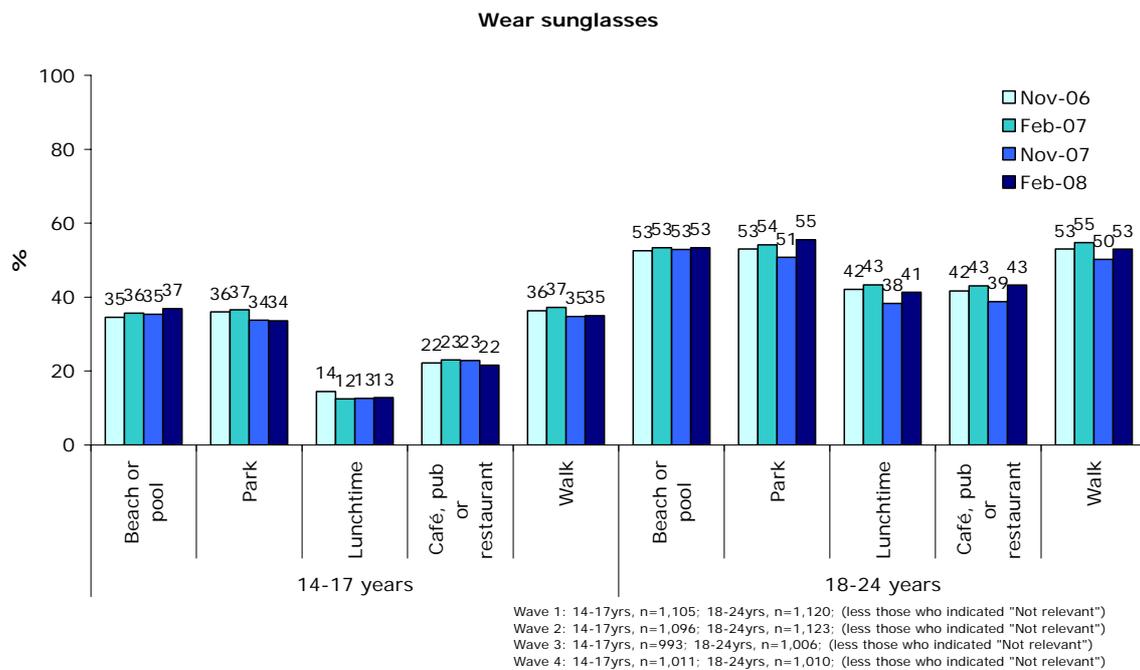
Figure 4.1.11 Adoption of hats in specific contexts



Among teens, wearing a hat at an outdoor café or restaurant improved a little initially, between November 2006 and February 2007. Among 18-24 year olds, the proportion who reported that they wore a hat at the beach or outdoor pool initially increased (i.e. between November 2006 and February 2007). Also among this age group, there was found to be an increase in the proportion wearing a hat while on a walk, comparing each of the February surveys with the baseline result. In addition, wearing hats at lunchtime was more widespread among young adults in February 2008 compared to November 2006 and November 2007.

The results relating to sunglasses are shown in Figure 4.1.12. As can be seen, teenagers were generally less likely than young adults to wear sunglasses. Among 18-24 year olds, the proportion wearing sunglasses when at the park improved between November 2007 and February 2008. There were no other significant changes.

Figure 4.1.12 Adoption of sunglasses in specific contexts



Among both groups, use of protective clothing was relatively low across various situations. However, there were found to be numerous significant improvements. Among 14-17 year olds, there was found to be a significant increase in use of protective clothing:

- at the beach or outdoor pool after each phase of the campaign (i.e. between November 2006 and February 2007, and November 2007 and February 2008), and also between the baseline data and the February 2008 finding. (This pattern of results may be consistent with seasonal variation in the adoption of sun protection.)
- likewise, at the park after each media burst, and comparing the baseline results with the February 2008 results
- at lunchtime, with the baseline result being significantly lower than the result in each subsequent survey
- at an outdoor café or restaurant in February 2008, when compared with the baseline and November 2007 results

- on a walk, after media bursts, and also between November 2006 and February 2008

There were also a number of significant increases in young adults' use of protective clothing, in a range of situations:

- at the beach or outdoor pool, comparing the November 2006 with the February 2007 results
- at the park, comparing the baseline and the February 2008 results
- at lunchtime, comparing the February 2008 data with each previous round of research
- at an outdoor café or restaurant or pub, increasing from 19% in the baseline survey to 23% in February 2008
- on a walk, when the February 2008 results are compared with each of the November measures

These results are shown in Figure 4.1.13.

Figure 4.1.13 Adoption of protective clothing in specific contexts

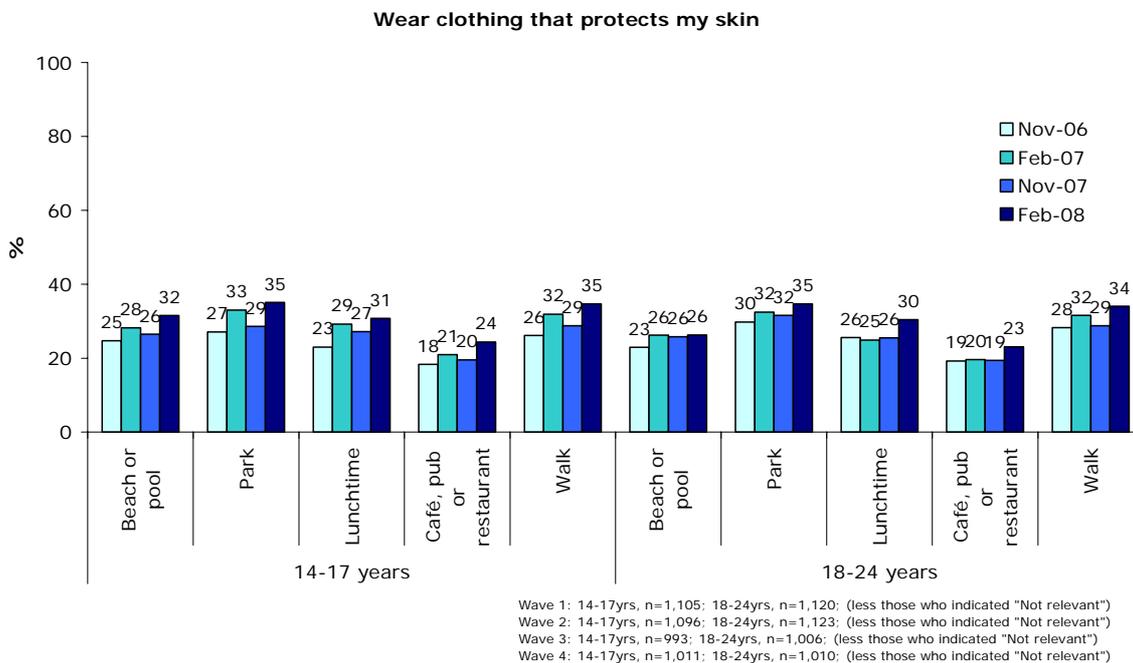


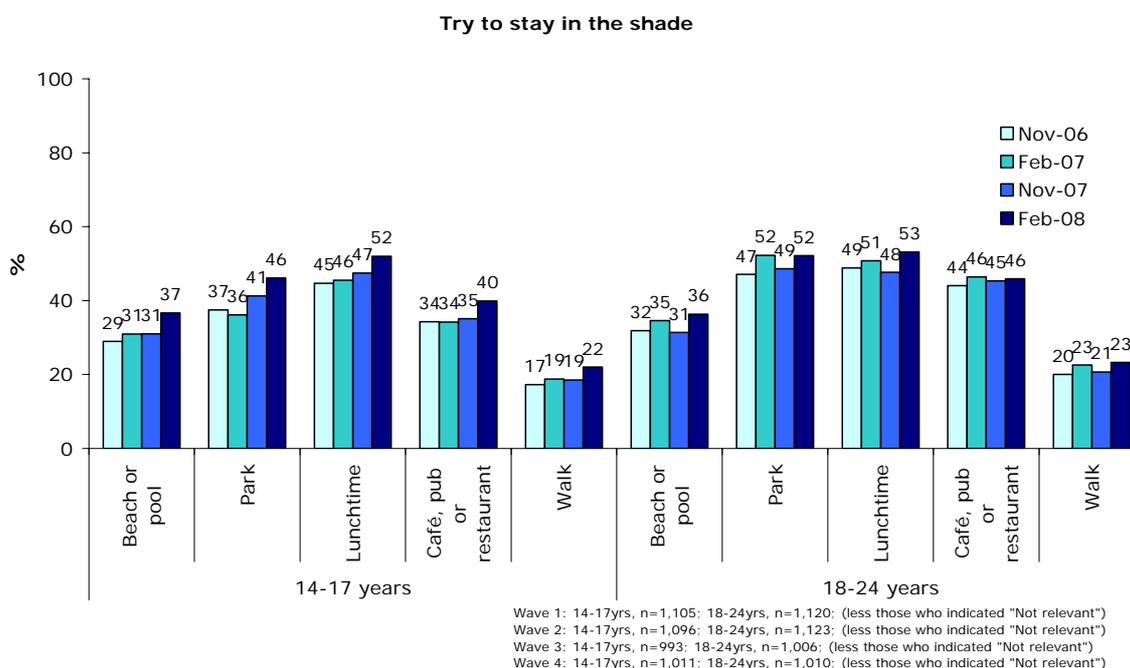
Figure 4.1.14 shows that shade was least likely to be used while walking, or at the beach or outdoor pool. However, there have been a number of significant increases in the target audiences' use of shade. When at the beach or outdoor pool, more teenagers reported staying in the shade in the February 2008 survey than each previous round of research, and more 18-24 year olds stayed in the shade in February 2008 compared with each of the November surveys.

When at the park, teenagers were more likely to use shade in February 2008 than in each of the previous rounds of research, and 18-24 year olds were more likely to try to stay in the shade in February 2007 and February 2008 than in the baseline survey.

More 14-17 year olds reported seeking shade at lunchtime in February 2008 than in each previous round of research. In addition, more 18-24 year olds sought shade at lunchtime in February 2008 than in November 2007.

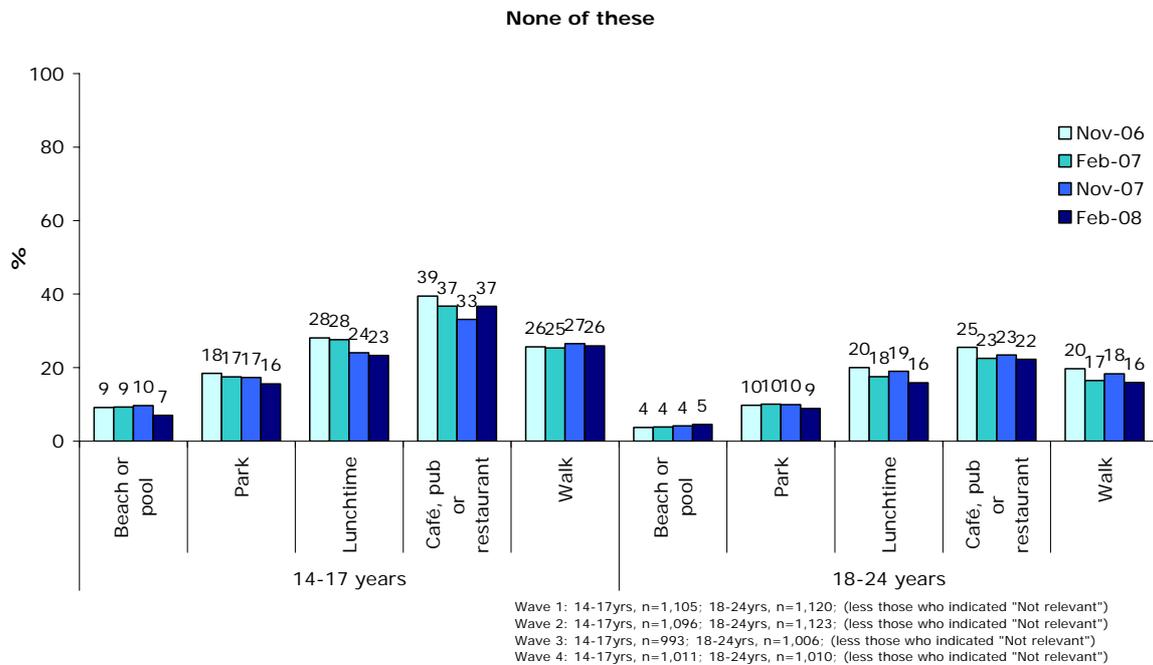
Among teenagers, the proportion who sought shade when at an outdoor café or restaurant in February 2008 was higher than each of the previous rounds of research, and when on a walk, the proportion of teenagers seeking shade increased from 17% in November 2006 to 22% in February 2008.

Figure 4.1.14 Adoption of shade in specific contexts



The survey also measured the proportion that did not adopt any form of sun protection in each of the specific situations. It was found that the proportion adopting no form of sun protection was highest for outdoor dining, and at lunchtime. These results are shown in Figure 4.1.15.

Figure 4.1.15 Proportion not adopting any sun protection methods in various contexts



The proportion of teenagers who said that they adopt no measures when at the beach or outdoor pool dropped from 10% in November 2007 to 7% in February 2008.

There was also a decline in the proportion of 14-17 year olds saying that they adopt no measures at lunchtime between November 2006 (28%) and November 2007 (24%), and November 2006 and February 2008 (23%), and also between the two February surveys (28% to 23%). Among 18-24 year olds, there was a drop in the proportion saying that they adopt 'none of these' sun protection methods at lunchtime when comparing the baseline and February 2008 results (20% to 16%).

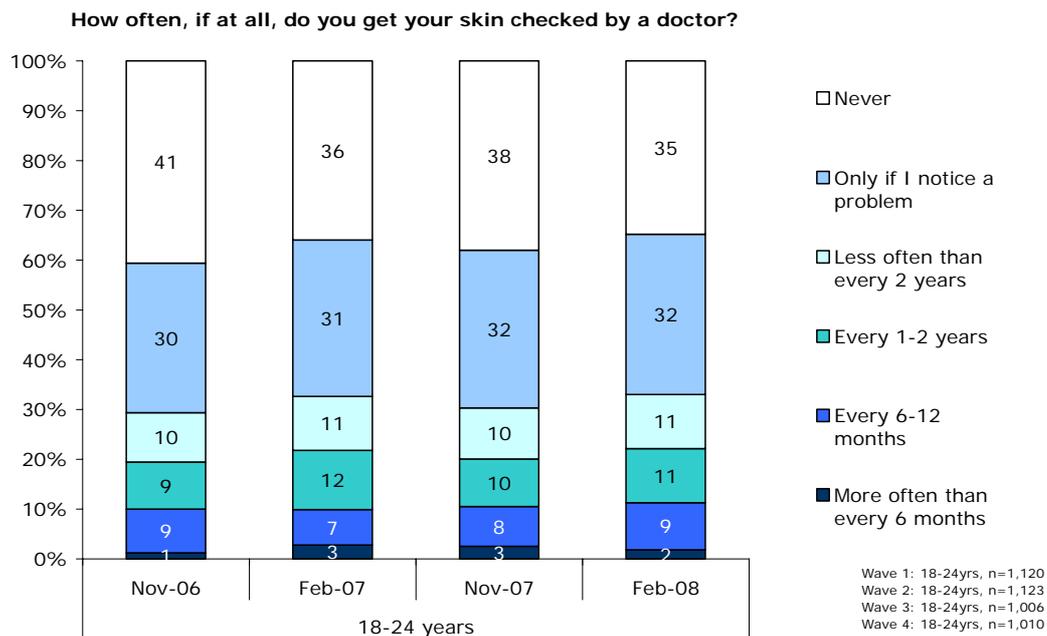
The proportion of teenagers adopting no measures when at an outdoor café or restaurant fell from 39% in November 2006 to 33% in November 2007.

Fewer 18-24 year olds said that they adopted no measures when going for a walk in both February surveys when compared with the baseline results.

Skin checks

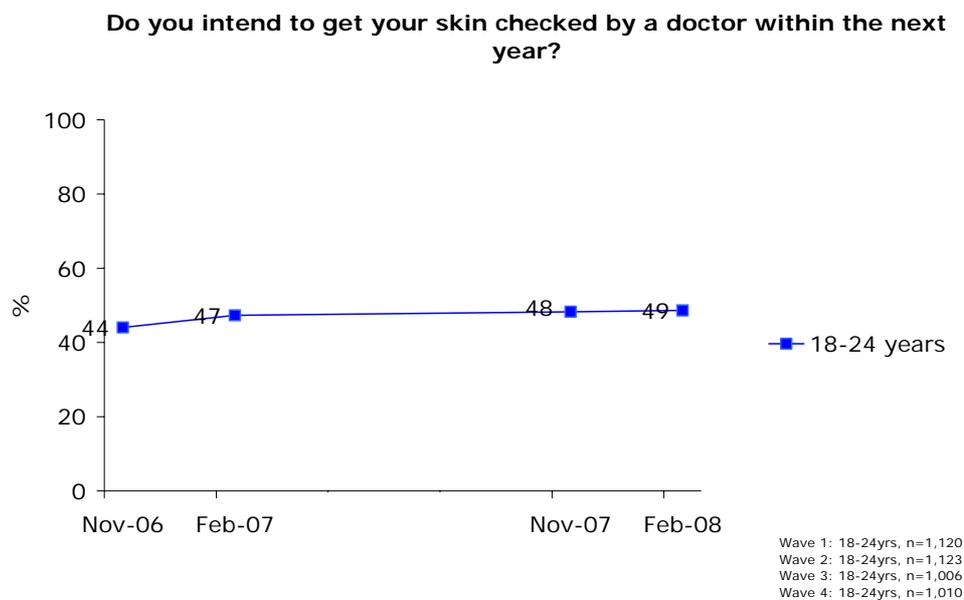
Young adults were asked to indicate how often, if at all, their skin is checked by a doctor. The results, shown in Figure 4.1.16, suggested that there was a significant decrease in the proportion of 18-24 year olds reporting never having had their skin checked between November 2006 and February 2007, dropping from 41% to 36%. However, there were no other significant changes found.

Figure 4.1.16 Skin examinations among young adults



Young adults were also asked about their intentions to have their skin checked by a doctor within the next year. The results, shown in Figure 4.1.17, revealed that 18-24 year olds' intentions to have their skin checked were higher in November 2007 and February 2008 than they were prior to the campaign.

Figure 4.1.17 Intentions to have skin checked within the next year

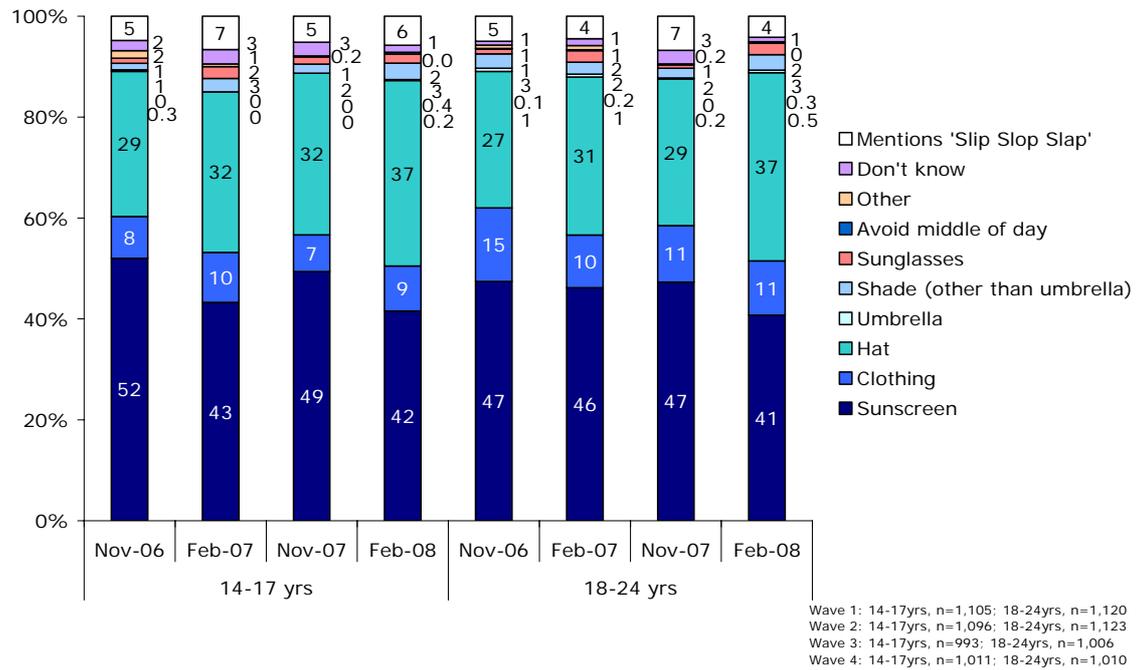


4.2 Knowledge

Sun protection methods

The survey measured unprompted awareness of sun protection methods. Participants were asked to list all the ways that someone can protect themselves from the sun when outdoors. In analysing the results, not only did the researchers investigate which sun protection methods were mentioned, but it was also noted which sun protection method was listed first. This was done to determine the relative salience of the various sun protection methods. Overall, sunscreen and hat were found to be the most top of mind measures for the target audiences, as shown in Figure 4.2.1.

Figure 4.2.1 Sun protection method mentioned first

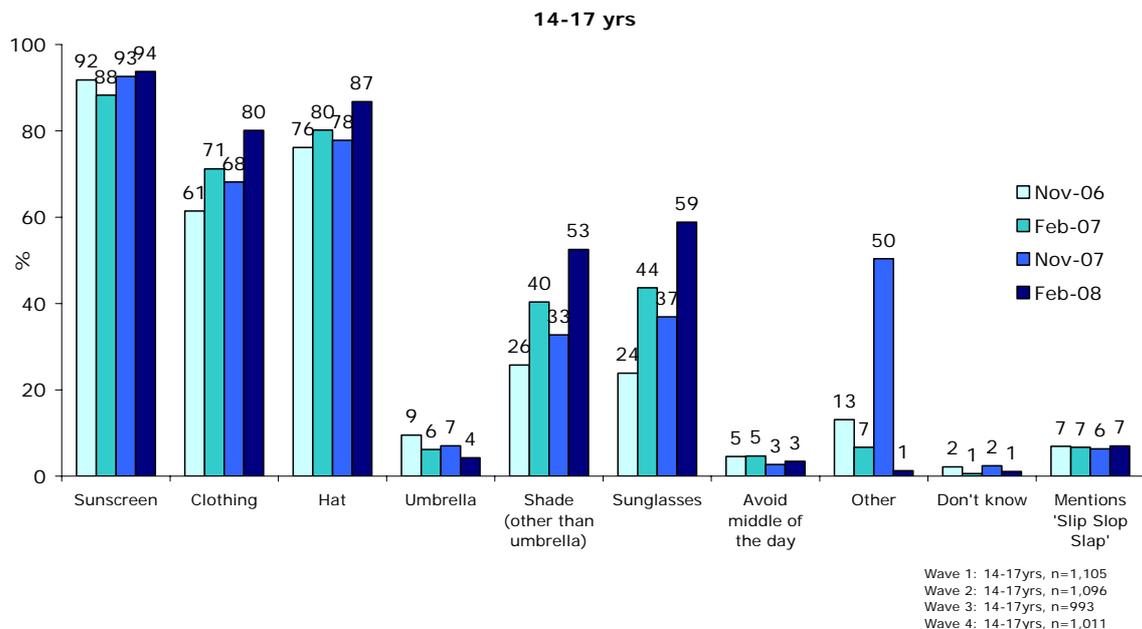


Among teenagers, fewer mentioned sunscreen first in each summer survey (i.e. when asked soon after the media activity) compared with the baseline data. This suggests that the campaign increased the salience of sun protection methods other than sunscreen among teenagers. It was also found that teenagers were more likely to mention a hat or umbrella first, comparing the February 2008 with the baseline results.

Young adults were less likely to mention protective clothing first, comparing the November 2006 to the February 2007 data. More 18-24 year olds mentioned a hat first in February 2008 compared with each of the November surveys. Also, sunglasses were mentioned first more often in February 2008 than in November 2007 by this audience.

Figure 4.2.2 shows unprompted awareness of all sun protection methods for 14-17 year olds. As can be seen, sunscreen was most commonly mentioned, followed by a hat, then protective clothing. Avoiding the middle of day was mentioned by relatively few.

Figure 4.2.2 Unprompted awareness of sun protection methods among 14-17 year olds



The results suggest that the campaign has been successful at increasing the salience of many methods of sun protection. Most notably, the proportion of teenagers mentioning sunglasses has increased from 24% to 59% over the life of the campaign, and the proportion mentioning shade has increased from 26% to 53% during this time. There have also been marked improvements in teenagers' unprompted awareness of protective clothing, increasing from 61% in November 2006 to 80% in February 2008. For all of these measures, there was a significant increase in unprompted awareness after the first phase of the campaign. Unprompted awareness for sunglasses, shade and protective clothing was also higher in November 2007 compared with the baseline data, and the February 2008 data represented an improvement on all previous rounds of research.

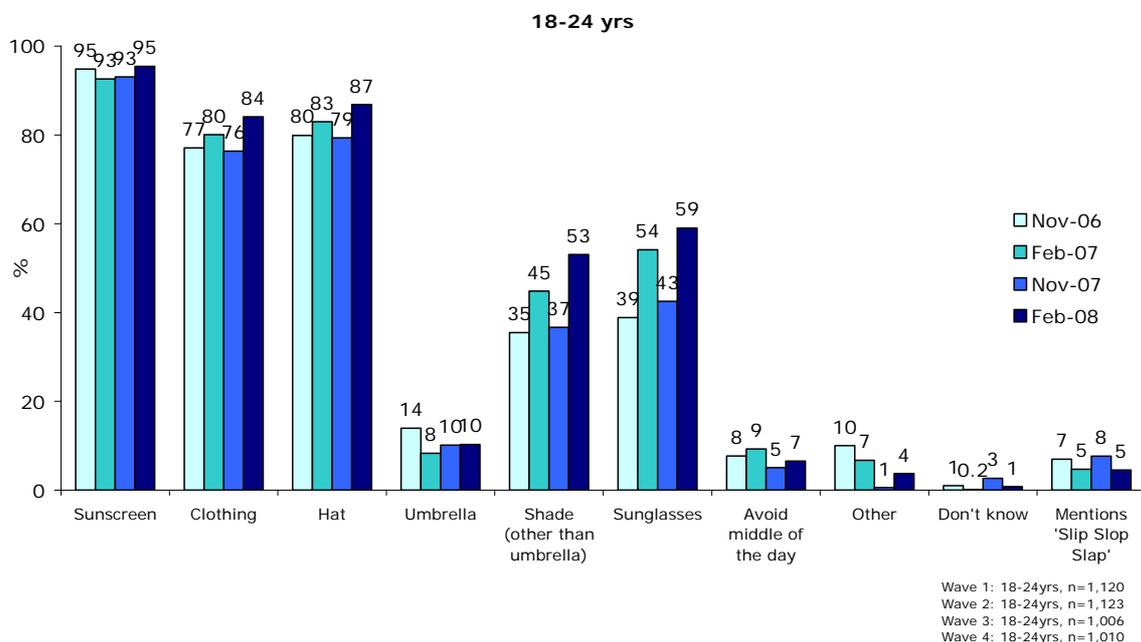
Unprompted awareness of hats among 14-17 year olds went from 76% prior to the first phase of the campaign to 87% in the final survey. Indeed, the proportion mentioning a hat increased significantly between November 2006 and February 2007, and the proportion mentioning a hat in February 2008 was significantly higher than all previous rounds of research.

In the February 2007 survey, teenagers were slightly less likely to mention sunscreen than they were in the baseline survey, although the proportion which mentioned sunscreen increased between February 2007 and February 2008.

Umbrellas were more likely to be mentioned by teenagers prior to the first phase of the campaign than in each of the subsequent rounds of research. There was a slight decrease, from 7% in November 2007 to 4% in February 2008, in the number of teens mentioning an umbrella. Slightly fewer 14-17 year olds mentioned avoiding the middle of the day as a way of protecting oneself from the sun in November 2007 compared with November 2006, presumably because this method of sun protection was not featured in the campaign. There were also slightly fewer teenagers who said that they did not know any measures for protecting themselves from the sun in February 2008 compared with November 2007.

The corresponding figures for 18-24 year olds are shown in Figure 4.2.3. There were significant increases in this target audience's unprompted awareness of sunglasses, shade, clothing, and hat, each of which were more likely to be mentioned after the first phase of the campaign, and also more likely to be mentioned in February 2008 compared with each of the previous rounds of research.

Figure 4.2.3 Unprompted awareness of sun protection methods among 18-24 year olds



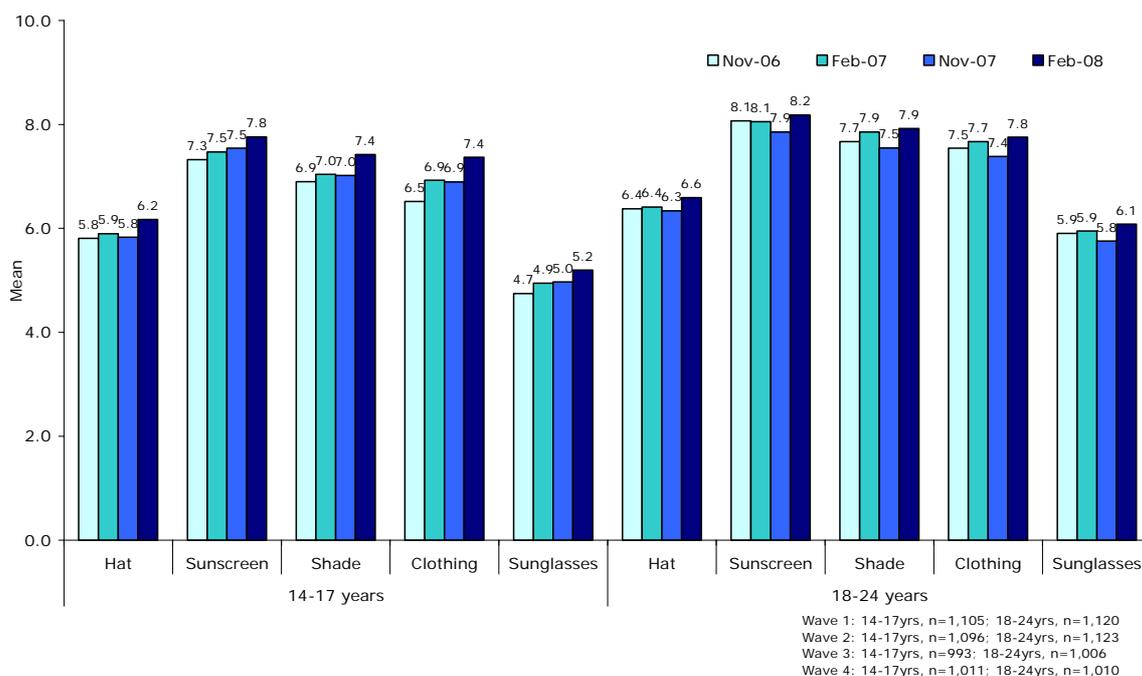
There was also found to be a slight initial decrease in the proportion of 18-24 year olds mentioning sunscreen (i.e. comparing November 2006 and February 2007), and more young adults mentioned sunscreen in February 2008 than in February 2007 and November 2007.

Similar to the results for teenagers, young adults were more likely to mention an umbrella in the baseline survey compared with each subsequent round of research. There were more mentions of avoiding the middle of the day in November 2006 (8%) than there were 12 months later (5% in November 2007), and this method was less likely to be mentioned by 18-24 year olds in February 2008 than in February 2007. The proportion of young adults saying they “don’t know” the available methods to protect themselves from the sun showed some small changes between November 2006 and November 2007, and also between November 2007 and February 2008. The proportion of young adults saying “slip, slop, slap” was 5% in February 2008, which was slightly lower than the 7% in November 2006 and 8% in November 2007.

Perceived effectiveness of sun protection methods

Using a scale of zero to ten, participants were asked to rate the effectiveness of various methods of protecting themselves from the sun. The results are shown in Figure 4.2.4.

Figure 4.2.4 Perceived effectiveness of sun protection methods



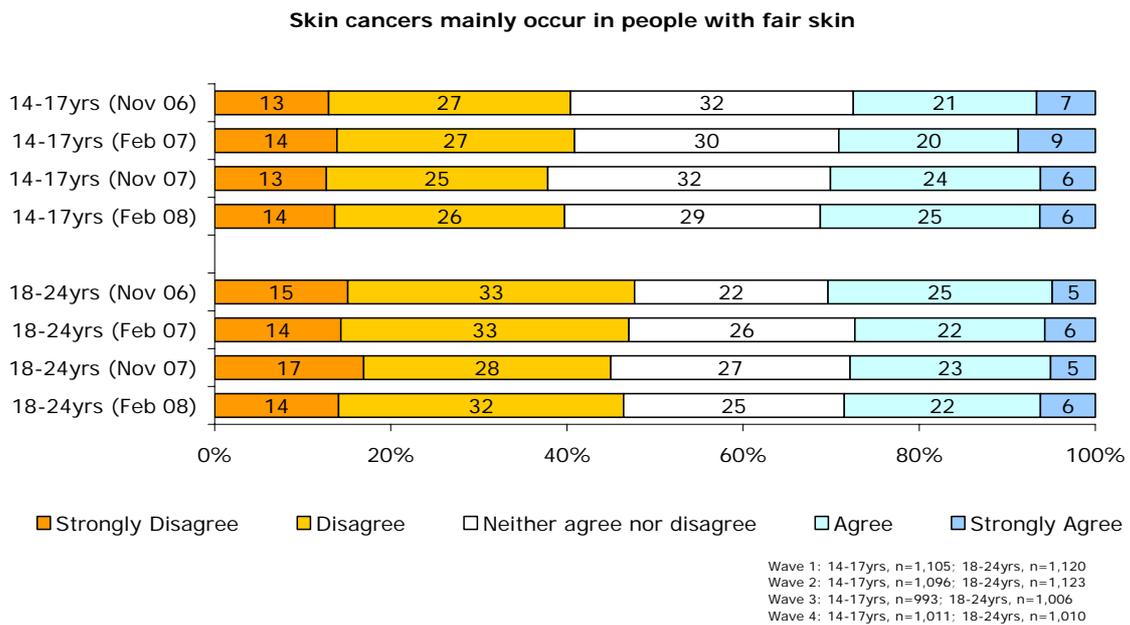
Among young people, sunscreen was seen as the most effective form of sun protection, receiving ratings of between 7.3 and 8.2. Sunglasses were seen as the least effective method. There was found to be a number of significant increases in the average perceived effectiveness of many forms of sun protection. However, because it is difficult to determine a hypothesis for how perceived effectiveness could be expected to change over time, the details have not been reported here. While it is true that one of the reasons why some people may not adopt a form of sun protection is that they may not see it as particularly effective, one cannot be sure that

the relationship between perceived effectiveness of sun protection and the adoption of sun protection is causal, and therefore changes in one cannot necessarily predict changes in the other. Furthermore, the objective of the campaign was not to increase the perceived effectiveness of a single form of sun protection, but rather to encourage people to see it as necessary to adopt multiple forms of sun protection. In this way, it would not necessarily be desirable for there to be a large increase in the perceived effectiveness of, say, a hat, which is not particularly effective on its own.

4.3 Attitudes

Figure 4.3.1 shows that there were mixed views on whether skin cancers mainly occur in people with fair skin, although more disagreed with the statement than agreed with it. Given that the person in the TVC was quite fair, there had been some concern that this fact may have increased agreement with this statement in the post-campaign surveys. Fortunately, this did not prove to be the case: there was no significant difference comparing the results of the four surveys.

Figure 4.3.1 Skin cancers mainly occur in people with fair skin



A central message of the TVC was that sunscreen was insufficient on its own, and that it is necessary to protect oneself in five ways. Among teenagers, there was significantly higher disagreement with the statement, "When used properly, sunscreen is an adequate protection on its own" in February 2008 compared with each previous round of research. There were also found to be improvements in the views of young adults, with 18-24 year olds more likely to disagree with this statement after each phase of the campaign (i.e. between November 2006 and February 2007, and November 2007 and February 2008), and more likely to disagree in February 2008 compared to the baseline survey.

Figure 4.3.2 When used properly, sunscreen is an adequate protection on its own

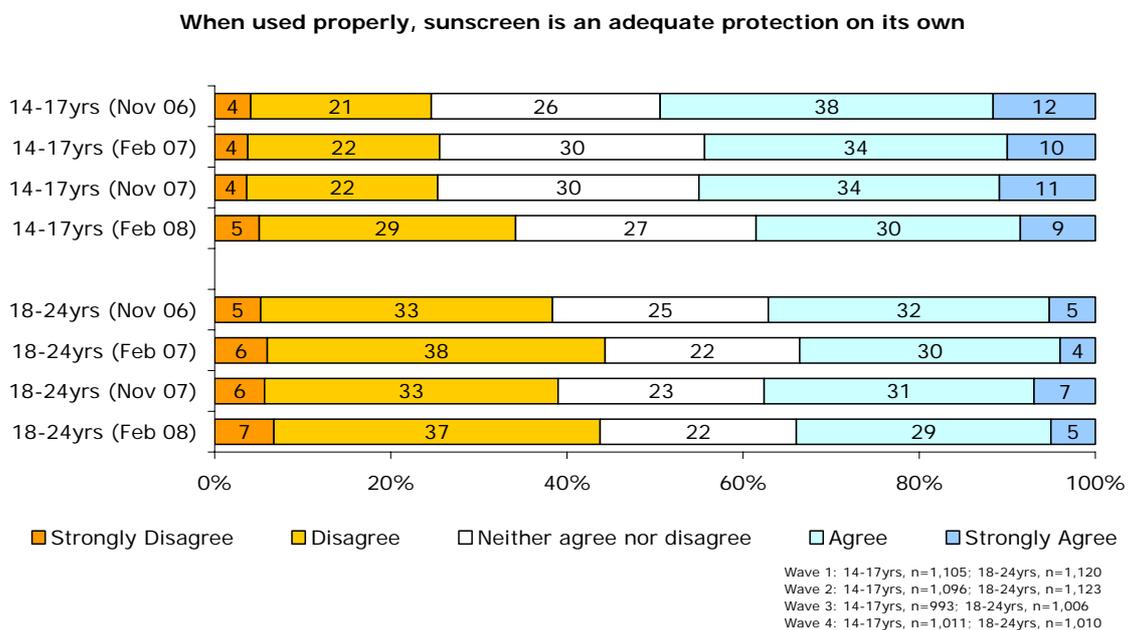
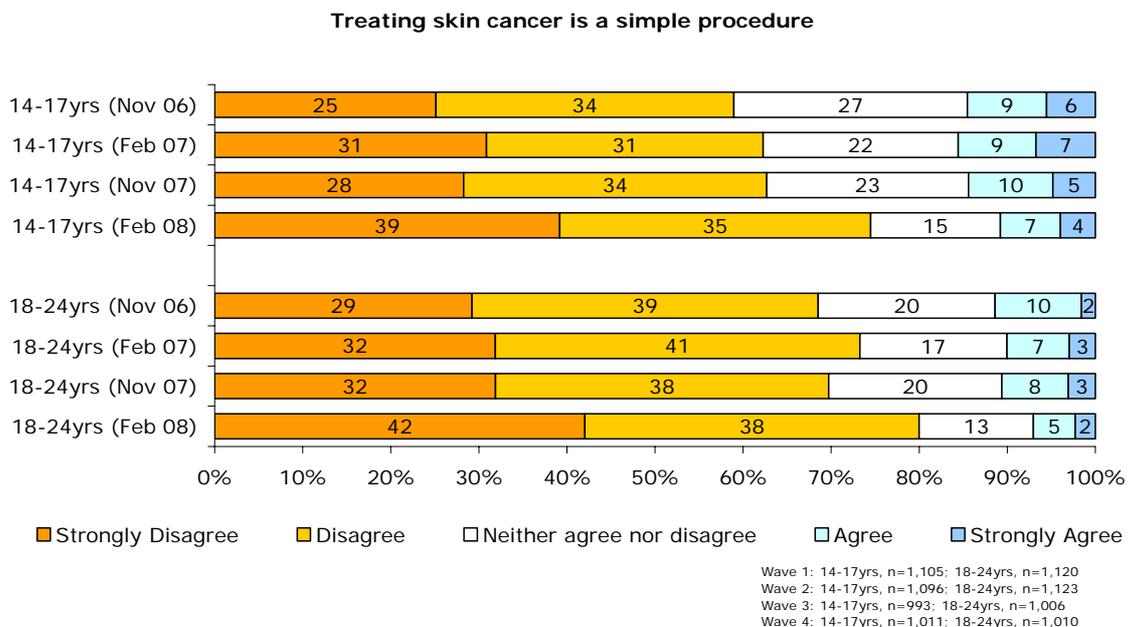


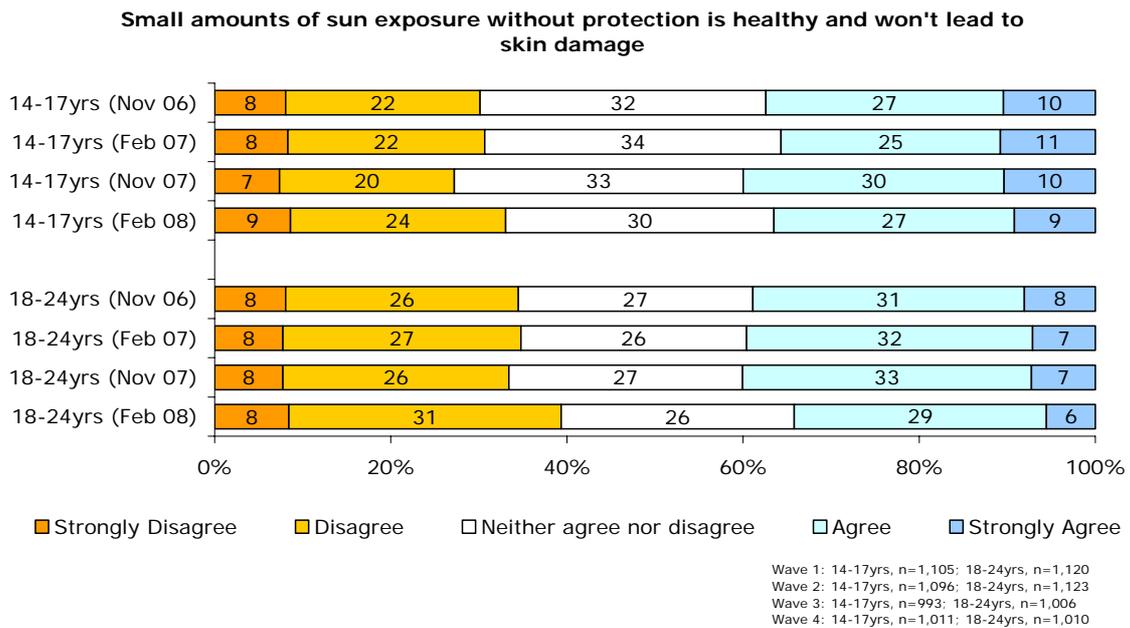
Figure 4.3.3 shows that most of each target audience disagreed that treating skin cancer is a simple procedure. Among teenagers and young adults, there were greater levels of disagreement in the final survey compared with each of the previous rounds of research.

Figure 4.3.3 Treating skin cancer is a simple procedure



As shown in Figure 4.3.4, members of the target audiences were divided as to whether or not small amounts of sun exposure without protection are healthy and safe. A large percentage of people indicated that they neither agreed nor disagreed with this statement. It is possible that these results suggest that people are unsure about the veracity of this statement.

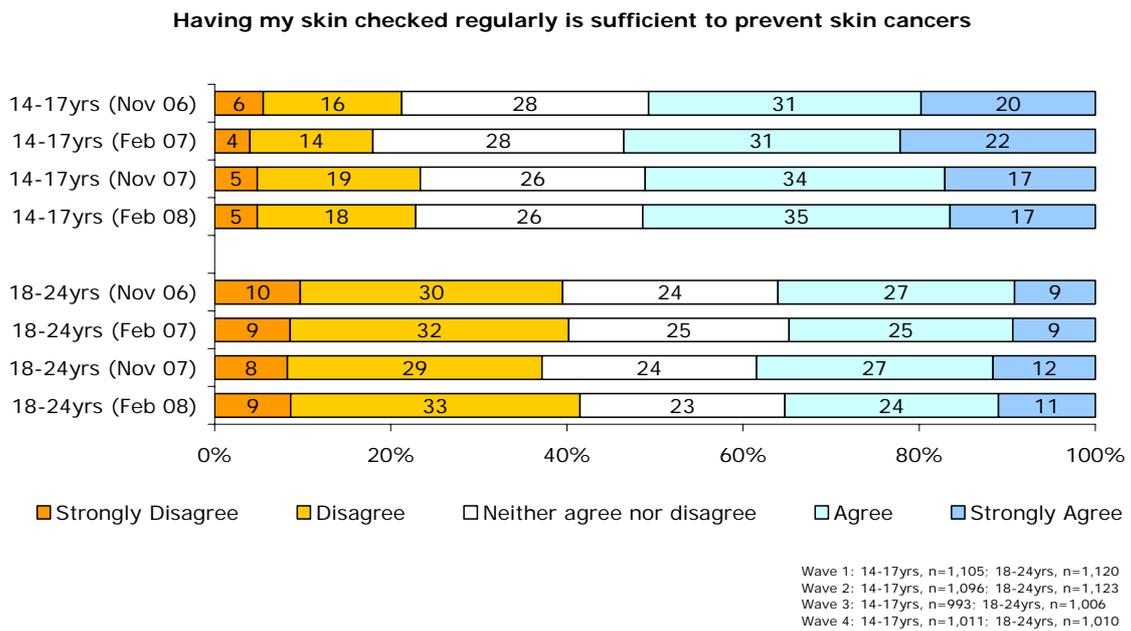
Figure 4.3.4 Small amounts of sun exposure without protection are healthy and won't lead to skin damage



As discussed with the Department during the development of the survey instrument, the statement “Small amounts of sun exposure without protection are healthy and won’t lead to skin damage” is subjective. In some ways, it would be desirable for the target audience to agree with this statement, from the perspective of getting sufficient sun exposure to avoid Vitamin D deficiency. However, agreement with this statement may also be undesirable, because it depends how “small amounts” is perceived. Agreement with this statement may, in some cases, reflect a tendency to not see any risks associated with cumulative exposure. Comparing the November 2007 and the February 2008 results, disagreement increased among teenagers. Among young adults, disagreement was greater in February 2008 compared with each previous round of research. The researchers believe that this is a positive result, and that it suggests that the target audiences are more inclined to see risks associated with cumulative exposure after the second phase of the campaign.

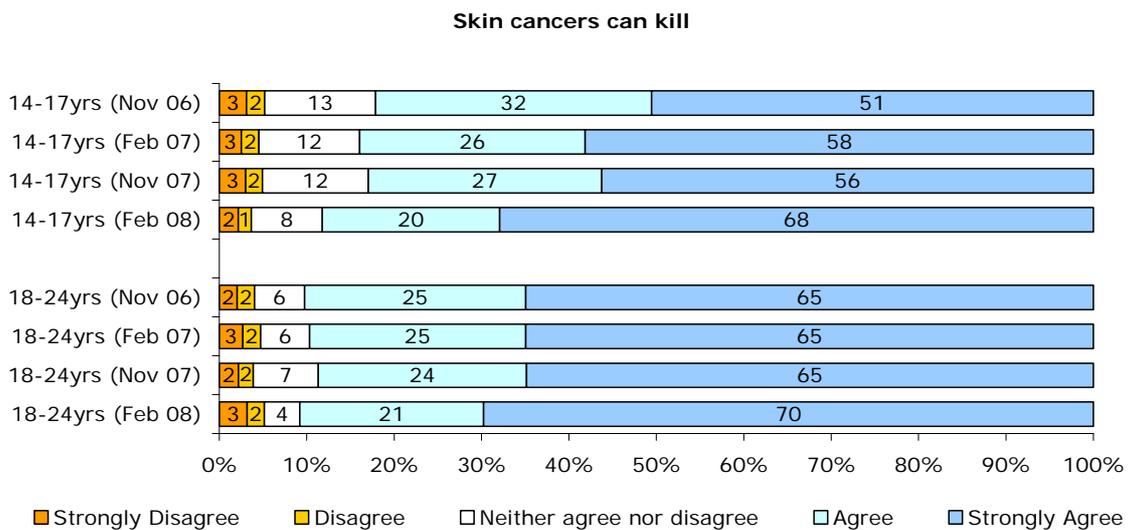
Figure 4.3.5 shows that 14-17 year olds were more likely than young adults to agree that skin checks are enough to prevent skin cancer. Among teenagers, agreement was higher in February 2007 than it was in each of the other surveys against which it was tested. There is not an apparent reason for this, and it may be an anomaly in the data. None of the other research findings suggest that the perceived importance of sun protection and prevention of cancer has diminished among the target audience. There was no change in levels of agreement among young adults.

Figure 4.3.5 Having my skin checked regularly is sufficient to prevent skin cancers



Participants were asked the extent to which they agreed that skin cancers can kill. The results are shown in Figure 4.3.6. Pleasingly, the level of agreement among 14-17 year olds went up between the baseline and the February 2007 survey. Agreement increased further still after the second phase of the campaign, such that agreement was higher in February 2008 than each of the previous surveys. Although the level of agreement among young adults appears to be higher in February 2008 compared with previous rounds of research, this was not statistically significant.

Figure 4.3.6 Skin cancers can kill

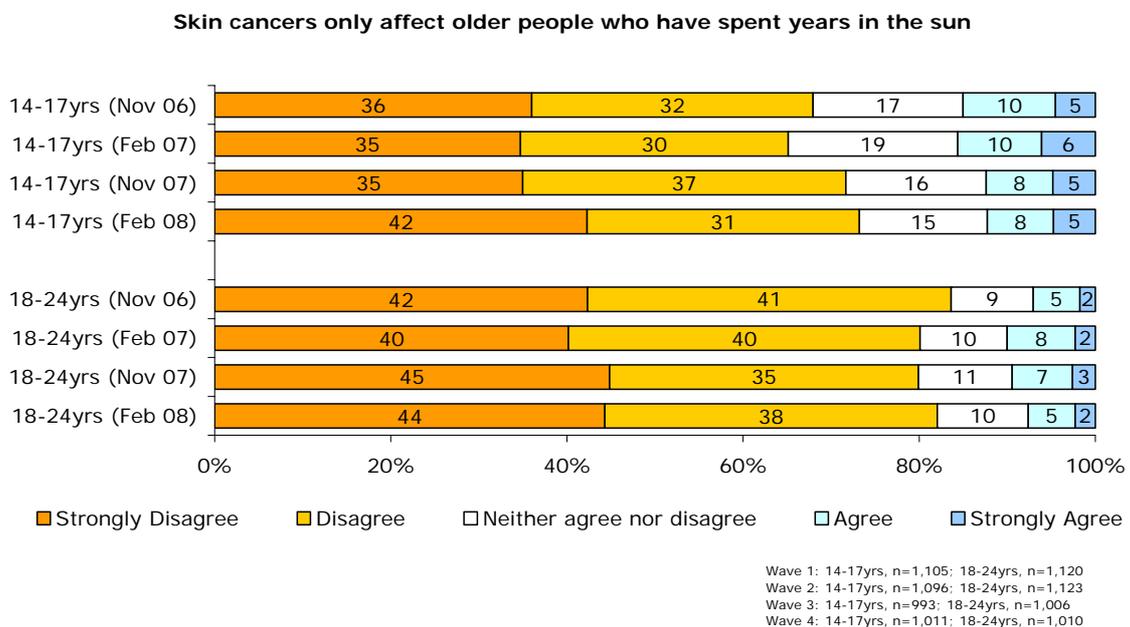


Wave 1: 14-17yrs, n=1,105; 18-24yrs, n=1,120
 Wave 2: 14-17yrs, n=1,096; 18-24yrs, n=1,123
 Wave 3: 14-17yrs, n=993; 18-24yrs, n=1,006
 Wave 4: 14-17yrs, n=1,011; 18-24yrs, n=1,010

Figure 4.3.7 shows that there was widespread disagreement that skin cancers only affect older people. Strangely, the level of disagreement among 18-24 year olds was lower in February 2007 than it was in November 2006. Certainly, the campaign itself does not appear to contain anything which would reduce the perceived relevance of skin cancer to young people, so the reason for this result is unclear. Among this target audience, the results from the November 2007 and February 2008 surveys were comparable with the baseline figures.

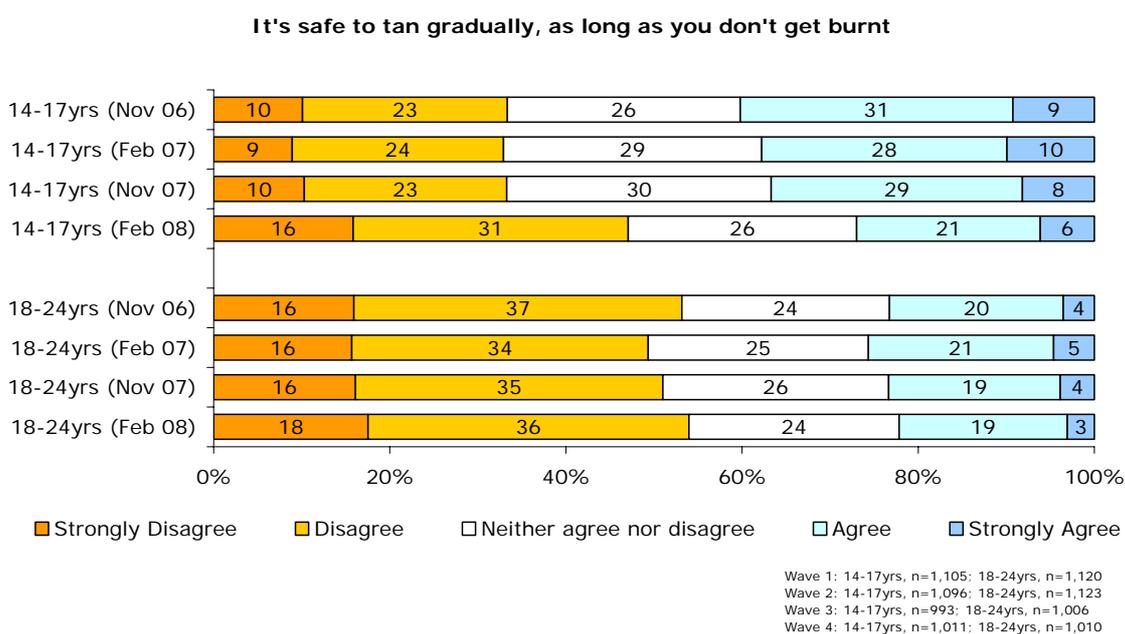
There were some desired changes among teenagers, with the proportion who disagreed that skin cancers only affect older people who have spent years in the sun being higher in February 2008 than in November 2006 and February 2007.

Figure 4.3.7 Skin cancers only affect older people who have spent years in the sun



As shown in Figure 4.3.8, a significant proportion of each target audience failed to reject the notion that it is safe to tan gradually. Initially, there were no significant changes in the views of teenagers, but there was a shift in attitudes towards the safety of tans after Summer 07/08 among teens. Disagreement among young adults was also higher in February 2008 than it was in February 2007. This may be because the second phase of the campaign had an increased emphasis on messages about tanning, coupled with campaigns in a number of states emphasising the risks of tanning. The issue received increased media attention as a result of the death of Clare Oliver in September 2007 as well.

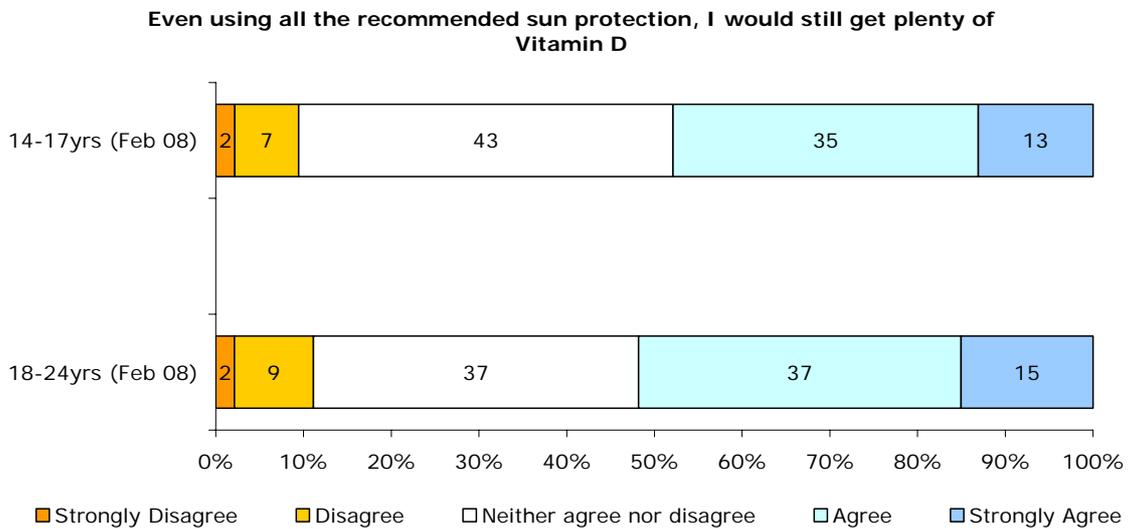
Figure 4.3.8 It is safe to tan gradually, as long as you don't get burnt



There was substantial media coverage on the issue of Vitamin D deficiency over Summer 2007/08, with claims that “Sunshine deficiency” has led to a “vitamin D crisis” in Australia.³ Concerns were raised about sun protection messages leading some to adopt unnecessarily stringent sun protection, and therefore exposing themselves to the risk of Vitamin D deficiency. Accordingly, a new item was added to the February 2008 survey in an attempt to understand views on Vitamin D and sun exposure. The results are shown in Figure 4.3.9.

³ <http://www.smh.com.au/news/national/sunshine-deficiency-leads-to-vitamin-d-crisis/2007/12/08/1196813081579.html>

Figure 4.3.9 Even using all the recommended sun protection, I would still get plenty of Vitamin D



Wave 1: 14-17yrs, n=1,105; 18-24yrs, n=1,120
 Wave 2: 14-17yrs, n=1,096; 18-24yrs, n=1,123
 Wave 3: 14-17yrs, n=993; 18-24yrs, n=1,006
 Wave 4: 14-17yrs, n=1,011; 18-24yrs, n=1,010

With many neither agreeing nor disagreeing with the statement, “Even using all the recommended sun protection, I would still get plenty of Vitamin D”, some may be uncertain about this issue. Around 1 in 10 disagreed with the statement, and it is possible that fear of Vitamin D deficiency could be acting as a barrier to appropriate sun protection for these people.

4.4 Advertising awareness and reactions

This section reports on the reach and frequency of the campaign, as well as the audiences’ reactions to it. Prior to presenting these results, some information about TARPs (Target Audience Reach Points) is provided, to assist in the interpretation of the results.

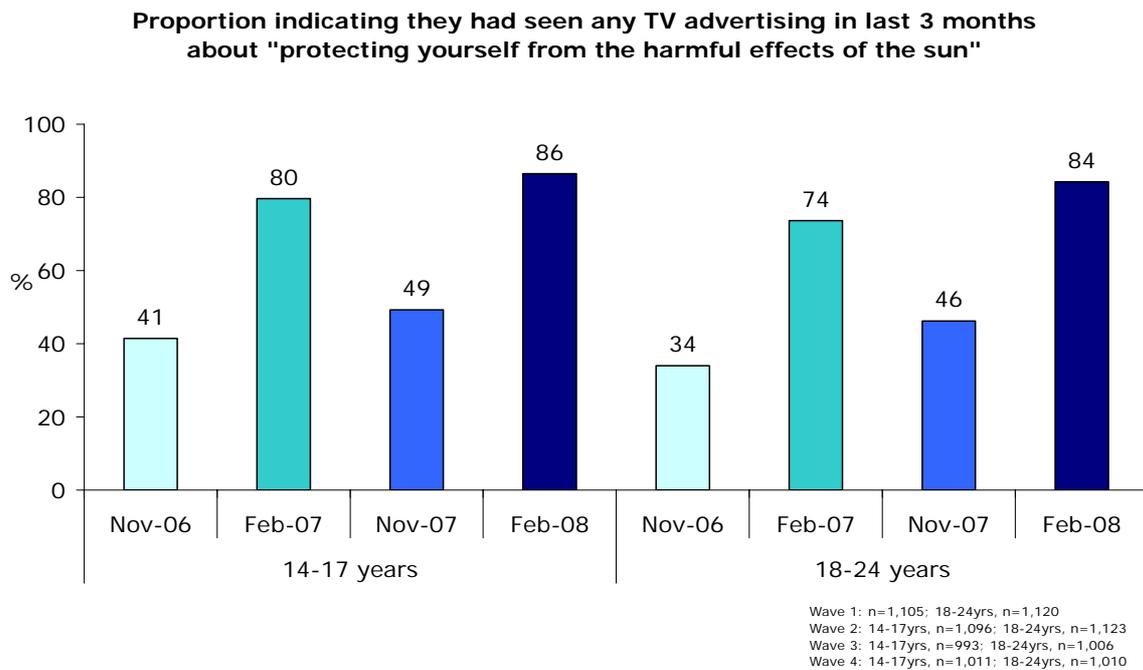
TARPs

In the first phase of the campaign, a total of 700 TARPs were purchased over a four week period commencing in November 2006 in both metropolitan and regional TV markets, with the aim of delivering a reach of 80% among 13-24 year olds. In the second phase of the campaign, a total of 500 TARPs were purchased, again over a four week period. Supporting radio, print, outdoor and online advertisements also appeared through-out both phases of the campaign.

Unprompted TVC recall

In order to measure unprompted TVC recall, participants were first asked whether they had seen "any TV advertising in the last three months about protecting yourself from the harmful effects of the sun". The proportion who said "yes" in each survey is shown in Figure 4.4.1.

Figure 4.4.1 Category-cued recall



As can be seen, at least four-fifths in each of the February surveys said that they had seen some TV advertising on the subject of protection from the harmful effects of the sun. Recall of TV advertising, as expected, was lower in the November surveys, reflecting the fact that most of the TV advertising on the issue of sun protection occurs over the summer months.

If respondents reported having seen any TV advertising about protecting themselves from the harmful effects of the sun, they were asked to describe the **first** advertisement that they remember seeing.

Unfortunately, when measuring unprompted advertising recall, it is not always possible to conclude with certainty whether a participant is in fact describing the campaign TVC. After the first phase of the campaign in February 2007, 8% of teenagers and 11% of young adults gave an unambiguous description of the campaign TVC. Unprompted awareness of the TVC then fell to 1% for both target audiences in November 2007. It is usual for unprompted recall to decay when there has been no media activity for some time. After the second phase of the campaign, unprompted awareness reached 11% among 14-17 year olds and 12% among 18-24 year olds. These results are shown in Figure 4.4.2. Although only those participants who said that they recalled any TV advertising on the subject were asked to describe the first ad that they remember seeing, the proportions shown in Figure 4.4.2 are based on the full sample, given that the reach of the TVC among each of the target audiences is the measure of interest.

Figure 4.4.2 Unprompted TVC recall

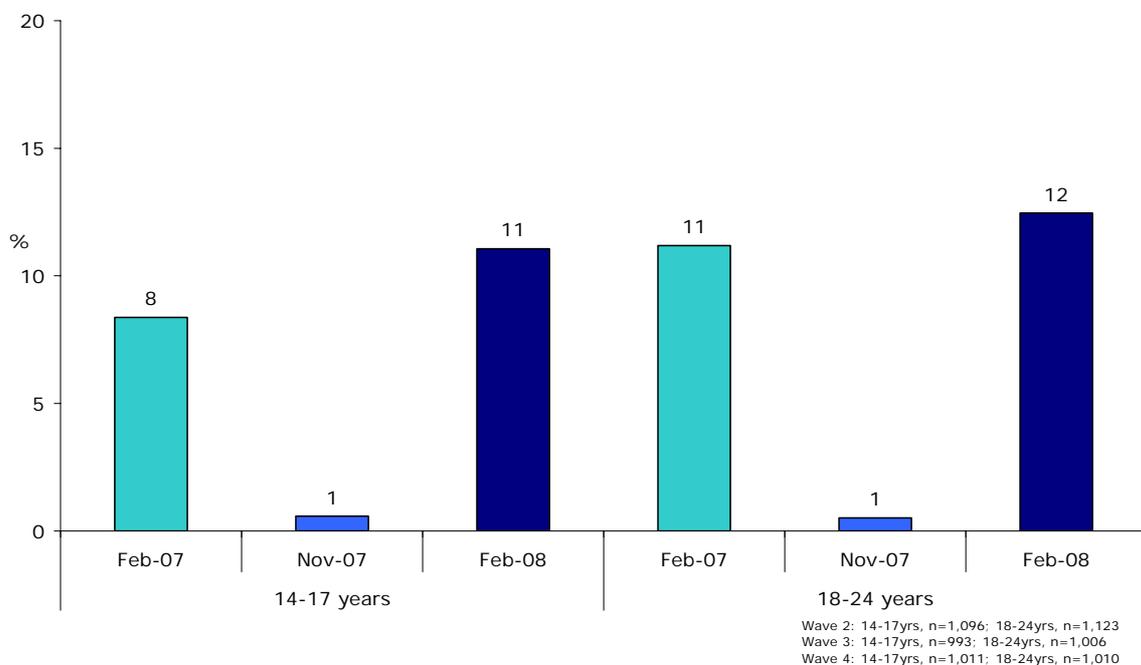
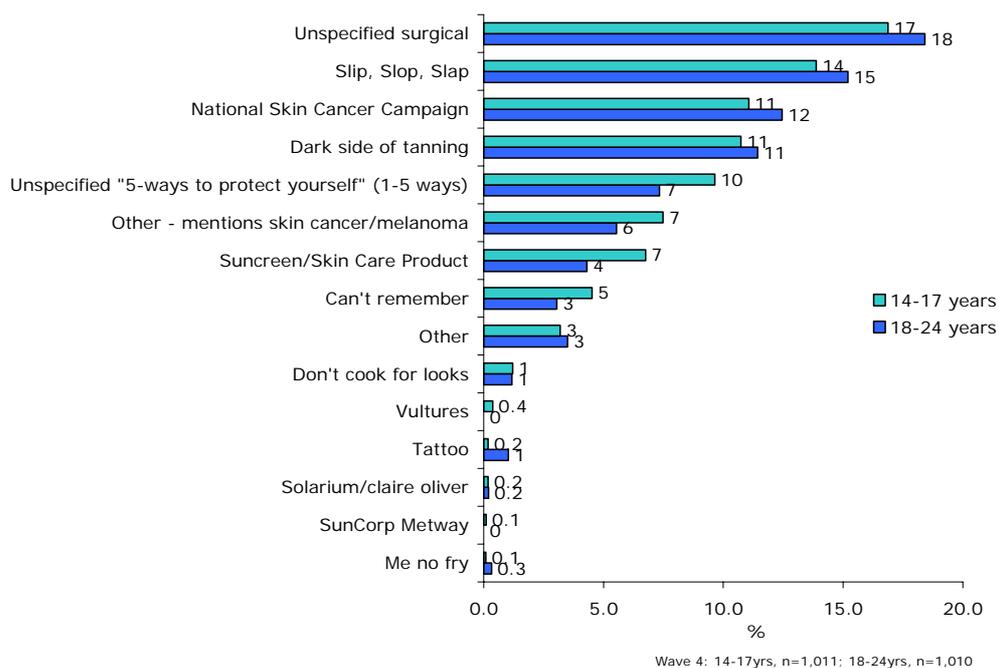


Figure 4.4.3 summarises the advertisements which participants described in the February 2008 survey.⁴ It was found that 17% of teenagers and 18% of young adults described a surgical procedure. There was insufficient information provided in these descriptions to be certain that participants were describing the National Skin Cancer Awareness Campaign, although it is likely that some of these surgical descriptions represent awareness of the campaign TVC. Hence, unprompted recall of the TVC was potentially as high as 28% among teenagers and 31% among young adults.

It is also worth noting that the online methodology may have meant that unprompted recall was lower than might have been found using a telephone methodology. Based on presentations given by members of the Campaign Reference Group, some state-based research conducted over the telephone has suggested that prompted recall is around 30-40%. When questioned by an interviewer, participants feel a greater obligation to provide a more detailed answer and there are more opportunities to prompt for further details or clarification. This can assist in eliciting an answer that is more easily able to be classified.

Figure 4.4.3 Unprompted TVC recall



A considerable proportion of respondents mentioned the "slip, slop, slap" advertisement,

⁴ Again, the base for this chart is the full sample, rather than just those who said that they could recall having seen some TV advertising about protection from the harmful effects of the sun. A small proportion, when asked to describe the last advertisement they saw, said that they could not remember.

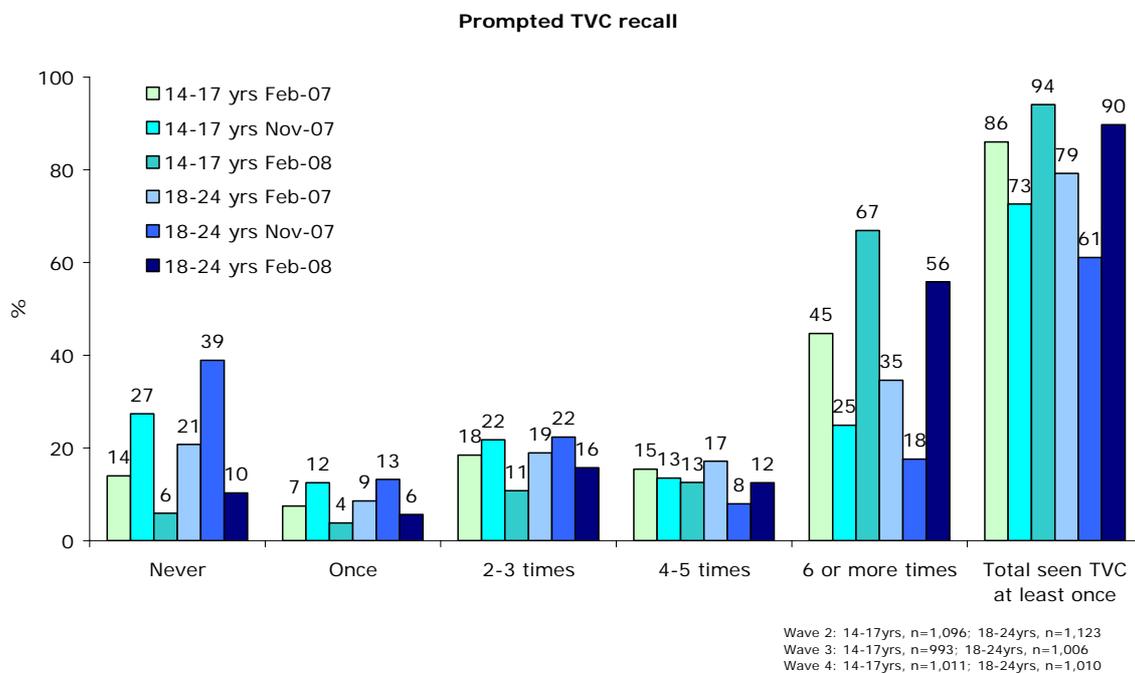
despite it not having been aired recently. It is not unusual for well-known, older campaigns to be mentioned when people are asked to describe an advertisement they have recently seen, demonstrating that “slip, slop, slap” has been a memorable campaign. Furthermore, some outdoor advertising featuring “slip, slop, slap” is still in use. When measuring advertising recall, it is usual for there to be a certain amount of incorrect attribution, where people believe they have seen an advertisement on television, when they actually have seen it via another medium.

Prompted TVC reach and frequency

All participants were then shown the TVC, and asked whether they had seen this previously. Prompted recall for the TVC was very high. After the first phase of the campaign, 86% of teenagers and 79% of young adults indicated that they had seen the TVC at least once. These figures were still quite high in November 2007 (73% and 61% respectively), despite the TVC not having been aired for several months, suggesting that the first phase of the campaign had been memorable for many. Prompted awareness reached new heights in February 2008, with 94% of teenagers and 90% of young adults saying that they had seen the TVC at least once. These results are shown in Figure 4.4.4.

A significant proportion of both teenagers (67%) and young adults (56%) had seen the TVC six or more times by February 2008.

Figure 4.4.4 Prompted TVC reach and frequency



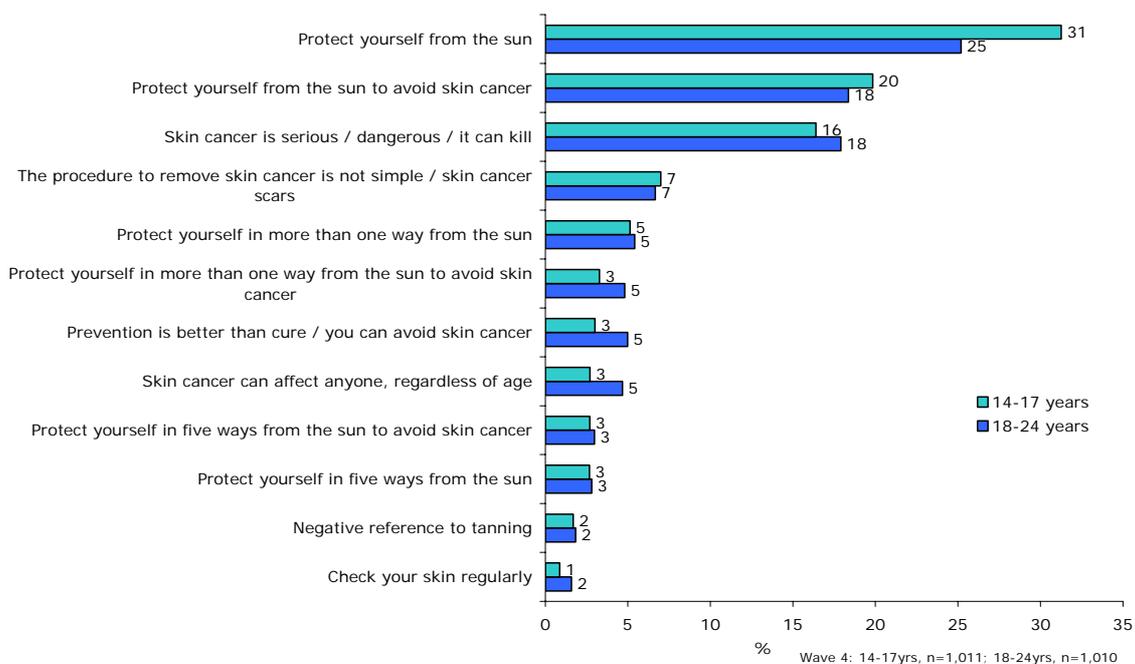
Perceived messages

Respondents who had recalled the TVC were asked, “What is the main message in that advertisement?” The results for February 2008 are displayed in Figure 4.4.5. As in previous rounds of research, the most common response was a generic message, “protect yourself from the sun”, mentioned by 31% of teenagers and 25% of young adults.

As can be seen, many of the responses concerned the need to protect oneself from the sun in more than one way. These responses have been separated into specific categories in Figure 4.4.5, including “Protect yourself in more than one way from the sun”, “Protect yourself in more than one way from the sun to avoid skin cancer”, “Protect yourself in five ways from the sun”, and “Protect yourself in five ways from the sun to avoid skin cancer”. The total proportion who gave any one of these answers was quite sizeable, being 14% of teenagers and 16% of young adults, which suggests that a key perceived message of the campaign TVC was the importance of adopting multiple methods of sun protection.

The TVC was also seen to communicate the severity of skin cancer, and the need to protect oneself from the sun to avoid skin cancer. It is worth remembering that this was an open-ended question, rather than a prompted question about what messages are contained in the TVC. Hence, although only 7% specifically mentioned that the main message was that the procedure to remove skin cancer is not simple, it is likely that a far greater proportion would have agreed that this was a key message of the TVC.

Figure 4.4.5 Perceived message of TVC campaign

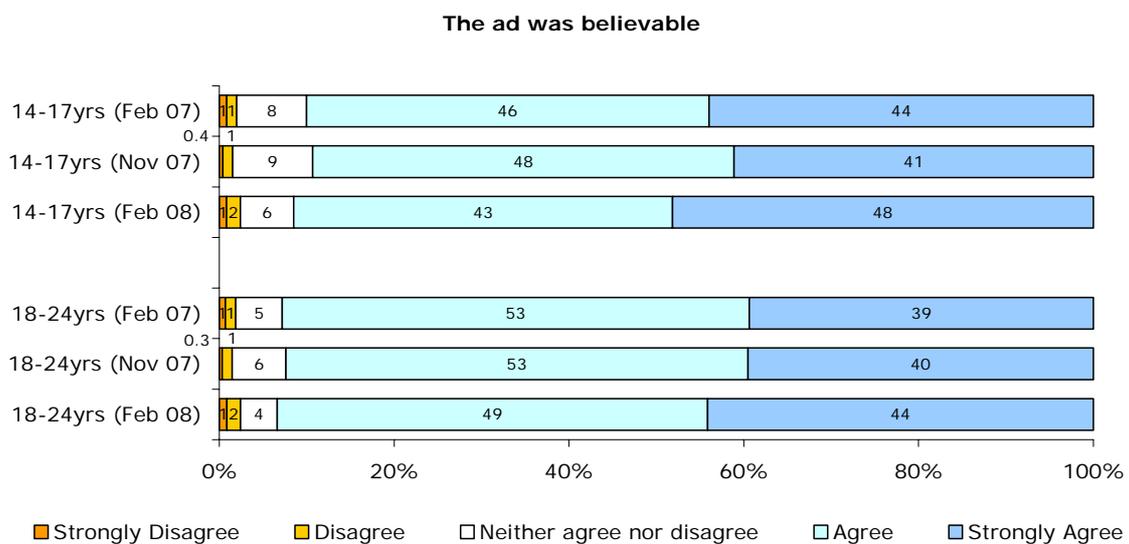


Looking at the results about the perceived messages of the campaign TVC as a whole, it is encouraging to note that almost all answers did reflect possible messages of the TVC. This suggests that the advertisement has been well-understood by the target audiences, with very little evidence of miscommunication of messages.

Reactions to TVC

Respondents who had seen the TVC were then asked to rate it on four diagnostic criteria: whether it was believable, whether it was attention-grabbing, whether it made them think about their own risk of developing skin cancer, and whether it was felt to be informative. Figure 4.4.6 shows, as was the case in previous rounds of research, that there were very high levels of agreement in February 2008 that the TVC was believable (91% for teenagers and 93% for young adults). There was very little disagreement in both age groups.

Figure 4.4.6 Whether TVC was believable⁵

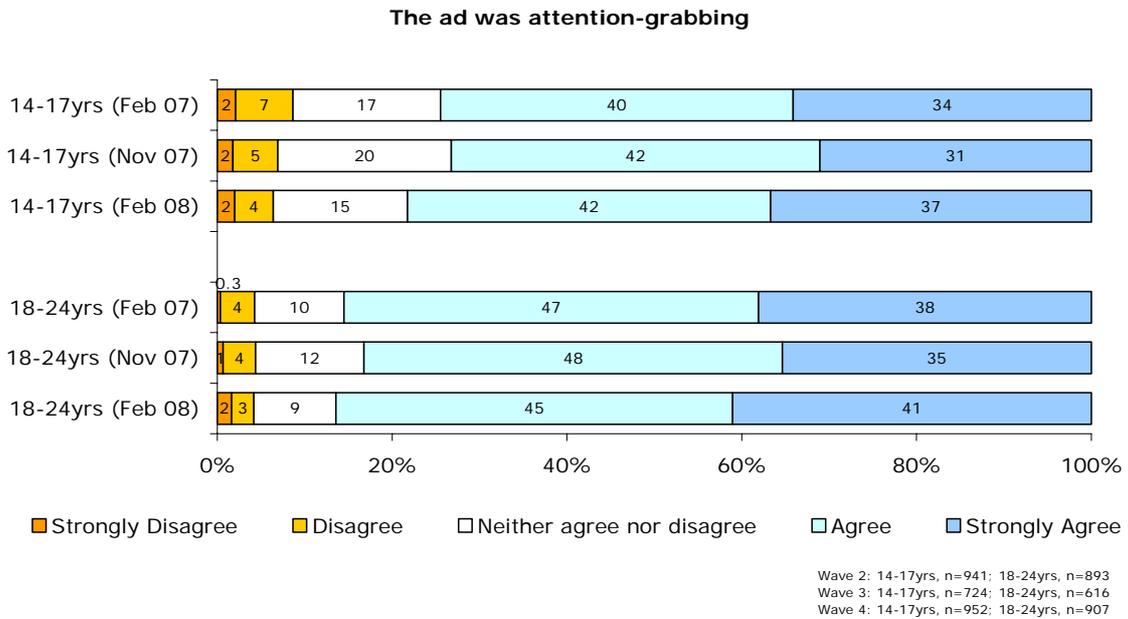


Wave 2: 14-17yrs, n=941; 18-24yrs, n=893
 Wave 3: 14-17yrs, n=724; 18-24yrs, n=616
 Wave 4: 14-17yrs, n=952; 18-24yrs, n=907

⁵ In this, and a number of other figures, some of the data labels for very small proportions appear on top of the bar, to improve their legibility.

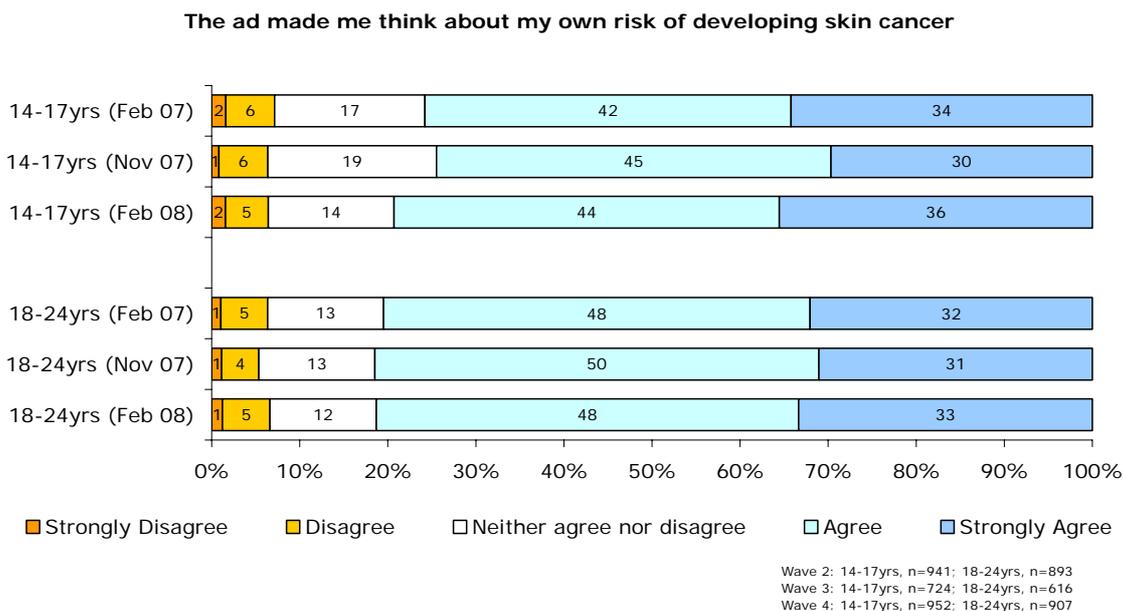
A large proportion of teenagers and young adults agreed that the TVC was attention-grabbing, as seen in Figure 4.4.7. This level of agreement was reasonably consistent across each of the surveys.

Figure 4.4.7 Whether TVC was attention-grabbing



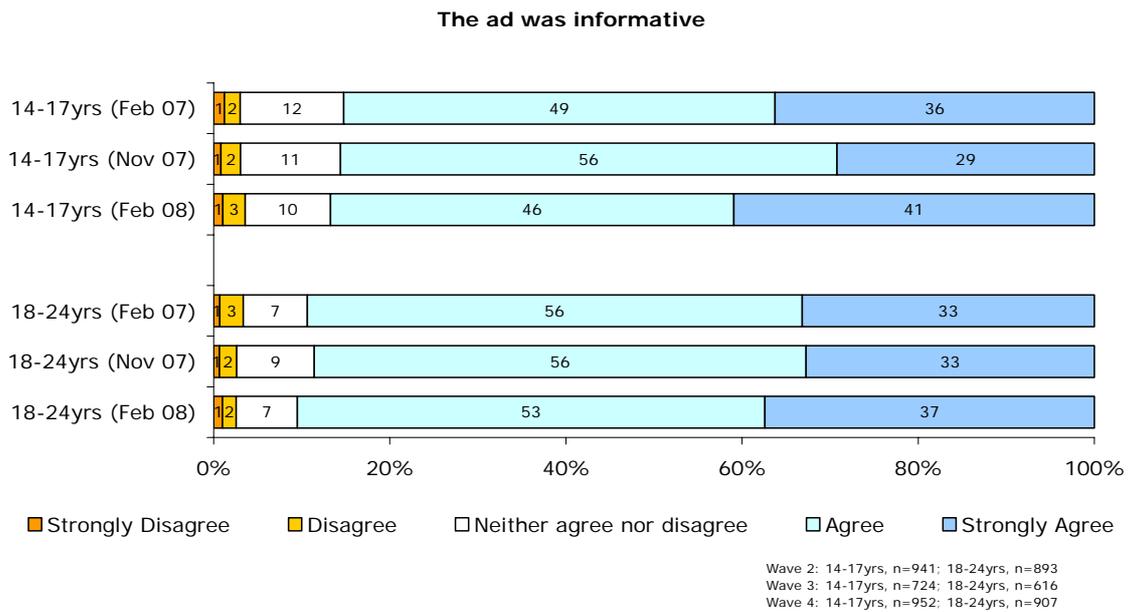
Participants were asked to what extent they agreed that the advertisement made them think about their own risk of developing skin cancer. The results are shown in Figure 4.4.8. Again, there were found to be high levels of agreement with this statement, with a total of 79% of teenagers and 81% of young adults agreeing with this statement in February 2008. This is a positive result, given that it is not uncommon for many to resist the idea that an advertisement changes one's attitudes.

Figure 4.4.8 Whether TVC made viewer think about their own risk of developing skin cancer



As can be seen in Figure 4.4.9, again most teenagers and young adults agreed that the TVC was informative (87% of teenagers and 90% of adults in agreement). Over time, it could be expected that the proportion of people who perceive an advertisement to be informative will decrease. This has not occurred with the National Skin Cancer Awareness Campaign, indicating that the campaign does not show signs of wear-out.

Figure 4.4.9 Whether TVC was informative

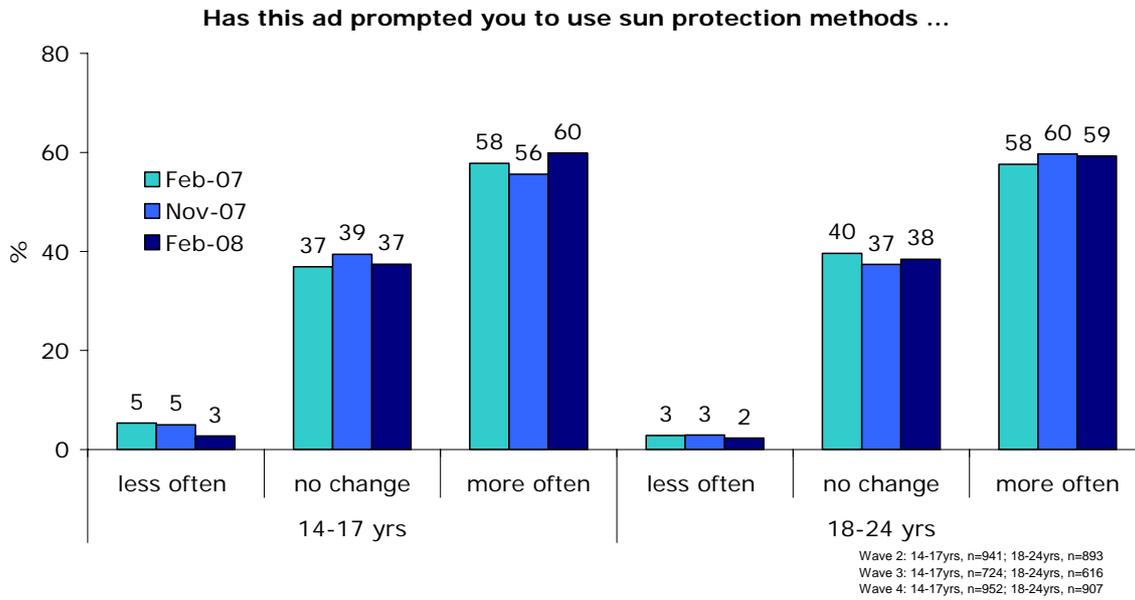


Perceived impact of TVC on behaviour

Finally, respondents who reported seeing the TVC were asked two questions on the perceived impact of the TVC on their behaviour: namely, whether the TVC has prompted them to use sun protection methods more or less often, and whether the TVC has prompted them to protect themselves from the sun in fewer or more ways.

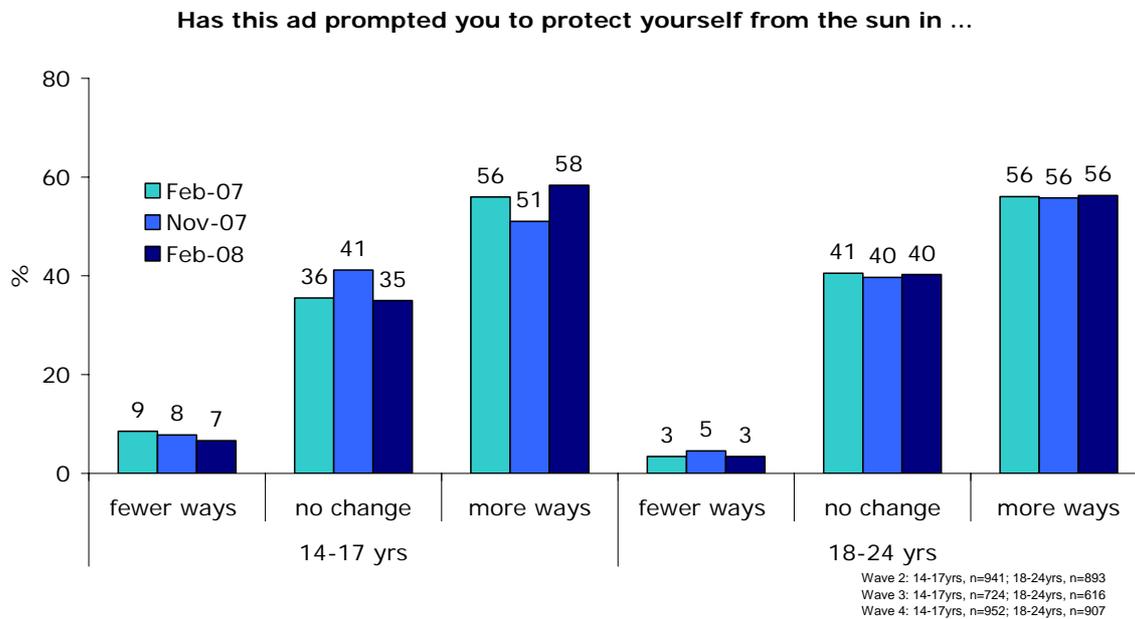
Figure 4.4.10 shows that around three-fifths of both teenagers and young adults felt that the TVC had prompted them to protect themselves more often. This impressive result is similar to that found in previous rounds of research, suggesting that the campaign has remained effective over time.

Figure 4.4.10 Whether TVC has prompted sun protection more often



Similarly, over half of both teenagers and young adults believed that the TVC has prompted them to protect themselves from the sun in more ways (see Figure 4.4.11). This positive result has persisted over time.

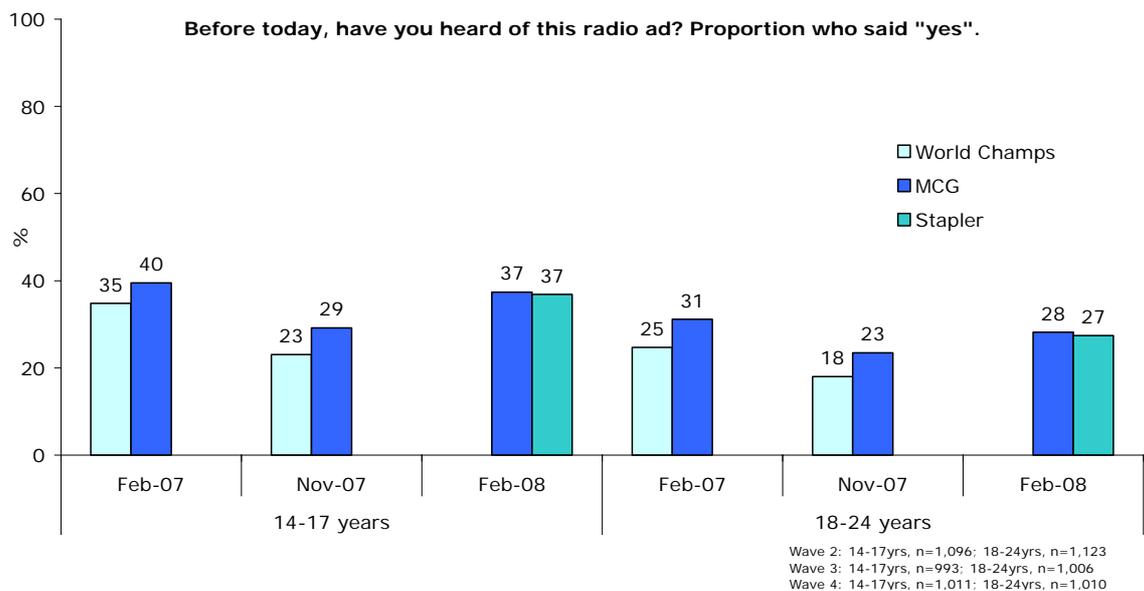
Figure 4.4.11 Whether TVC has prompted more ways of sun protection



Prompted recall of radio advertisements

Respondents were asked to listen to two radio advertisements used in the campaign and were then asked whether they had heard these advertisements before today. In both February 2007 and November 2007, the two advertisements to which participants listened were "World Champs" and "MCG", which were the advertisements used during the first phase of the campaign. In the final survey, they listened to "MCG" and the new execution, "Stapler", which were the two radio advertisements used during the second phase of the campaign. Figure 4.4.12 shows the proportion of participants who said that they had heard the radio advertisement before today. It can be seen that recall was similar for both the "MCG" and "Stapler" advertisements. Recall for both advertisements was a little higher in teenagers than young adults, suggesting that these radio advertisements may have been slightly more effective at reaching teenagers than young adults. In addition, the results suggest that the radio advertisements "MCG" and "Stapler" were slightly more effective than the "World Champs" advertisement, assuming that these received similar time on air.

Figure 4.4.12 Prompted recall of radio advertisements

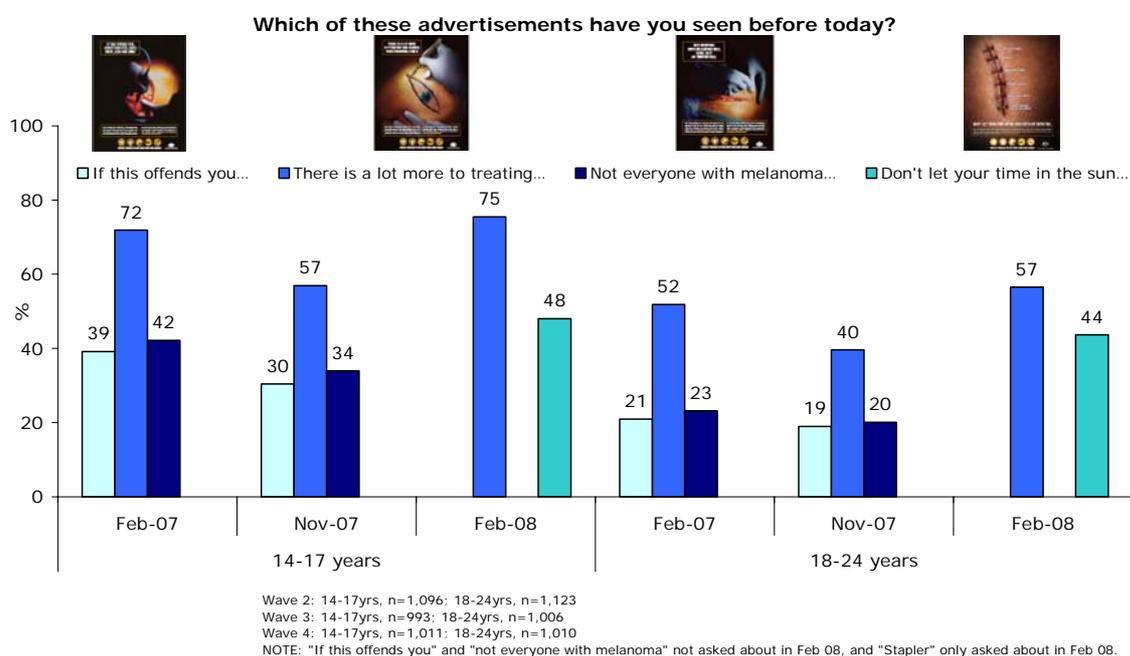


NOTE: "World Champs" not asked about in Feb 08, and "Stapler" only asked about in Feb 08.

Prompted recall of print/outdoor advertisements

Respondents were shown a number of print advertisements used in the campaign and were asked whether they had seen these advertisements before today. In February 2007 and November 2007, three print advertisements (which had been used in the first phase of the campaign) were shown to participants, while only the “Don’t let your time in the sun catch up with you” and “There is a lot more to treating skin cancer than removing a mole” print advertisements were shown in the February 2008 survey. The results are shown in Figure 4.4.13.

Figure 4.4.13 Prompted recall of print/outdoor advertisements



In February 2007, probably in part due to the fact that it was also used outdoors, the recall of the advertisement entitled “There’s a lot more to treating skin cancer than removing a mole” was uniformly higher than for the other two advertisements, which were approximately equal. Recall of the three print advertisements in November 2007 fell. Nonetheless, the results suggest that the print advertisements were memorable.

In February 2008, prompted recall of the print advertisement, “There is a lot more to treating skin cancer than removing a mole” reached 75% among 14-17 year olds, and 57% among 18-24 year olds. These results suggest that the Summer 2007/08 media buy successfully built on awareness established in the previous year. Awareness of the print advertisement, “Don’t let your time in the sun catch up with you” was not as high (at 48% among teenagers and 44% among young adults), but it was better than the awareness levels for the two advertisements “If this offends you, cover your eyes, back, chest, legs and arms” and “Not everyone with

melanoma dies, some just go through hell” found in the previous surveys. It is also worth noting that, when the February 2007 survey was conducted, the print and outdoor advertising had commenced several weeks earlier (i.e. magazine advertising started on 19th November 2006, and outdoor advertising on 24th December 2006). In contrast, when the February 2008 survey was conducted, the print and outdoor advertising had only commenced in mid-January 2008. Hence, there were likely to have been fewer opportunities for the audiences to have seen the new print/outdoor execution (“Don’t let your time in the sun catch up with you”) at the time that the February 2008 survey was conducted. This difference in the timing of the media buy, and its relationship to the timing of the survey, may also help to explain why the awareness of the “Don’t let your time in the sun catch up with you” advertisement was lower than the other print/outdoor advertisement included in the February 2008 survey.

Recall for each advertisement was appreciably higher among 14-17 year olds compared to 18-24 year olds, suggesting that these advertisements may have resonated more strongly with the younger audience.

CONCLUSIONS AND RECOMMENDATIONS

Overall, the research results indicate that the campaign has been effective, particularly among teenagers.

The campaign TVC has continued to achieve high reach, with 94% of teenagers and 90% of young adults having seen the advertisement at least once. In addition, frequency has improved further over time, with 67% of 14-17 year olds and 56% of 18-24 year olds reporting that they had seen the TVC six or more times. Reactions to the TVC continued to be favourable, with no signs of wear-out.

Recall of other campaign elements was lower, but nevertheless strong for these media. The print and outdoor advertisements have performed particularly well, especially among teenagers. Notably, 75% of teenagers said that they had seen the print advertisement entitled, "There is a lot more to treating skin cancer than removing a mole".

The results suggest that the campaign has had a dramatic, positive effect on awareness of sun protection methods. The salience of sunscreen has decreased slightly, while unprompted awareness of the other sun protection methods highlighted in the campaign advertising has improved markedly, particularly for sunglasses and shade. For example, unprompted awareness of shade increased from 26% prior to the first phase of the campaign to 53% in February 2008 among teenagers, and the corresponding figures were 35% and 53% among young adults. The campaign has therefore been very successful at meeting one of its key objectives. Not only were improvements achieved after the first phase of the campaign, but the results suggest that the second phase of the campaign has built upon and extended these gains.

There appear to have been several significant increases in the use of sun protection methods across both teenagers and young adults. The timing of the surveys is likely to have had some influence, with people being more inclined to report adopting sun protection behaviours when asked during the hotter season. However, some of these behavioural changes are likely to at least partly have been brought about by the campaign, particularly when improvements have occurred between the surveys conducted at the same time of year. In addition, the majority of participants have indicated that the campaign influenced them to adopt more forms of sun

protection, more often. Therefore, it is reasonable to conclude that some of the behavioural change observed has at least partly been brought about by the campaign.

Burning and deliberate tanning appears to have decreased, particularly among 14-17 year olds. It is difficult to assess the impact of the campaign in these areas, given that seasonal variation in tan-seeking and burning could be expected, and also because February 2008 was wet in several states. Even so, there was a small but significant decrease in the incidence of burning between November 2006 and November 2007 (when there was limited variation in the weather) among adolescents, in addition to the observed decrease from February 2007 to February 2008. The number of teenagers who reported that they had not been burnt during the last fortnight increased from 44% in November 2006 prior to the first phase of the campaign, to 52% the following November.

Similarly, among teenagers, deliberate tanning dropped from 42% in February 2007 to 29% in February 2008. Although the difference in weather between February 2007 and February 2008 is likely to have contributed to this drop, the fact that deliberate tanning dropped from 39% in November 2006 prior to the first phase of the campaign to 33% in November 2007 among 14-17 year olds does suggest that the campaign has made some impact.

Consistent with behavioural improvements, there were found to be changes in the target audience's attitudes towards tanning. Specifically, in February 2008, larger proportions of teenagers and young adults disagreed that it is safe to tan gradually, as long as one does not get burnt, when compared with previous rounds of research. This suggests that the second phase of the campaign has been more successful at communicating a message about the dangers associated with tanning. Campaign activity in specific states, as well as the media attention generated by Claire Oliver's death, are also likely to have contributed to this attitudinal change.

There is also evidence that the second phase of the campaign has made some progress on communicating a message about the risks associated with cumulative exposure. Comparing November 2007 and February 2008, the proportion of teenagers who disagreed with the statement, "Small amounts of sun exposure without protection are healthy and won't lead to skin damage" increased. Similarly, disagreement with this statement was greater among young adults in February 2008 than in any of the previous rounds of research. To some extent, it would be desirable for people to agree with this statement, from the point of view of avoiding Vitamin D deficiency. However, agreement with this statement may also suggest limited recognition of the risks associated with cumulative exposure, depending on what people regard as "small amounts of sun exposure". Hence, the changes which have been observed do suggest that the messages about cumulative exposure in the second phase of the campaign have made some impact.

Further improvements were observed in a number of other attitudes targeted by the campaign. The campaign appears to have been successful at increasing the perceived severity of skin cancer. The developmental qualitative research showed that this was an important objective, primarily because many people in the target audiences regarded the negative consequences of exposure to the sun as being primarily cosmetic and easily resolved. Prior to the first phase of the campaign, 17% of teenagers did not agree with the statement, "Skin cancers can kill". There was found to be an increase in agreement among 14-17 year olds after the first phase of the campaign, and by February 2008, agreement with this statement reached 88%, which was similar to the level of agreement among young adults. These results indicate that, as a result of the campaign, more teenagers recognise that skin cancer can be fatal. Furthermore, the February 2008 results show that both target audiences were less likely to perceive skin cancer treatment as a simple procedure than they were in each previous round of research. This is a pleasing outcome, given this was a central message of the campaign.

Not only was there an increase in the number of participants who perceived skin cancer to be severe, 14-17 year olds were more likely to see themselves as personally susceptible to it in February 2008 compared with the previous summer and prior to the first phase of the campaign. This suggests that the campaign has had some success in challenging the view that skin cancer only affects older people.

The results also suggest that there is now less widespread acceptance of sunscreen as an adequate form of protection on its own. There was significantly higher disagreement among teenagers in February 2008 with the statement, "When used properly, sunscreen is an adequate protection on its own", compared with previous rounds of research. Among young adults, disagreement increased comparing each of the pre- and post-media results. These results suggest that sustaining attitudinal change regarding the need for more comprehensive sun protection is challenging, and the audience may need to be reminded of this message frequently. Even so, the improvements observed in the post-campaign measures are encouraging.

Not only has the campaign increased the adoption of sun protection measures, it appears to have had the unintended effect of increasing young adults' intentions to have their skin checked by a doctor. When asked in November 2007 and February 2008, a slightly greater proportion of 18-24 year olds said that they intend to have their skin checked by a doctor in the next year, compared with the baseline data. Hence, the campaign appears to have had a small influence on early detection intentions among this age group. This is presumably a consequence of the fact that the campaign raises the issue of skin cancer removal and raises the perceived severity of skin cancer if not detected early.

Despite these improvements in awareness, behaviours and attitudes, there is still significant scope for further change. Consistent use of sun protection was not high, with the proportion of

teenagers and young adults indicating that they used a specific form of sun protection either always or usually being generally well below half. Reflecting this, the proportions reporting sunburn during the last fortnight continues to be extremely high (53% for teenagers and 63% for young adults), despite some evidence of improvement in the incidence of burning.

Although the campaign appears to have generated significant improvements in awareness, attitudes and has contributed to some behavioural progress, there is still significant scope for more change. Given this, further investment in sun protection messages is warranted.

There has been pleasing progress on attitudes towards tanning, with disagreement among 14-17 year olds that 'it is safe to tan gradually, as long as you don't get burnt' increasing from a third to just under half. This is mirrored in what appears to have been a reduction in deliberate tanning, with rates dropping by 13% among teenagers and 7% among young adults between February 2007 and February 2008. This is likely to be a result of the campaign working in synergy with other (state) campaign messages. Even so, many still see tans as safe, with over half (53%) of teenagers and 46% of young adults, failing to reject the idea that it is safe to tan gradually. There continues to be 29% of teenagers and 39% of young adults who report actively seeking a tan. Hence, subsequent campaigns may need to focus more specifically on widely-held misconceptions about the safety of tanning.

Another message which may need further attention is the risk associated with cumulative exposure. There does appear to have been some progress made, as mentioned above, with both key audiences being more likely to associate small amounts of unprotected exposure with the potential for skin damage after the second phase of the campaign. However, there are a number of indicators which suggest that many Australians continue to see cumulative exposure as unharmed. For example, tans are still widely perceived to be healthy. Also, despite some improvements in the adoption of various sun protection methods in specific situations, the extent to which people adopt comprehensive sun protection across a broad range of situations is still limited. The new print and radio advertisements which were added to the second phase of the campaign are likely to have yielded the observed improvements, but these media were secondary and had lower recall than the TVC. These gains could be expected to be built upon if the risks associated with cumulative exposure received more emphasis in any future campaigns.

A

APPENDIX A - CAMPAIGN COMMUNICATION OBJECTIVES

The communication objectives for each of the target audiences, for phase two of the campaign, are specified under the following headings.

Primary Target Audience

The objectives for the primary target audience (teenagers 13–17 years of age and young adults 18-24 years of age) are:

Behavioural

- To increase the adoption of multiple sun protection behaviours.

Awareness

- Increase and reinforce awareness of susceptibility to skin cancer caused by cumulative exposure to the sun and sunburn;
- Increase awareness of SunSmart's five key sun protection behaviours:
 1. Seek shade
 2. Wear sun protective clothing that covers as much of your body as possible
 3. Put on a broad-brimmed hat that shades your face and neck
 4. Wear wrap-around sunglasses
 5. Apply SPF30+ broad spectrum water resistant sunscreen every two hours. Sunscreen should not be used to extend the time you spend in the sun.
- Increase awareness of the importance of undertaking multiple sun protective behaviours

Attitude

- To increase and reinforce positive attitudes toward the adoption of multiple sun protection behaviours;
- To increase and reinforce social normative beliefs about sun protection behaviours;
- To reduce positive attitudes toward deliberate tanning.

Intention

- To increase and reinforce intentions to prepare for, and adopt, multiple sun protection behaviours.

Secondary Target Audience

The communication objectives for the secondary target audience of parents of children 0–17 years of age are:

Behavioural

- To increase adoption of multiple sun protection behaviours for their children and themselves.

Awareness

- Increase awareness of the importance of the influence parents can exert toward increasing their children's sun protective behaviours; and Increase awareness of the importance of undertaking multiple sun protective behaviours.

Attitude

- To increase and reinforce positive attitudes toward the adoption and role-modelling of multiple sun protection behaviours for their children and themselves (including avoiding deliberate tanning)

Intention

- To increase and reinforce intentions to adopt multiple sun protective behaviours for their children and themselves;

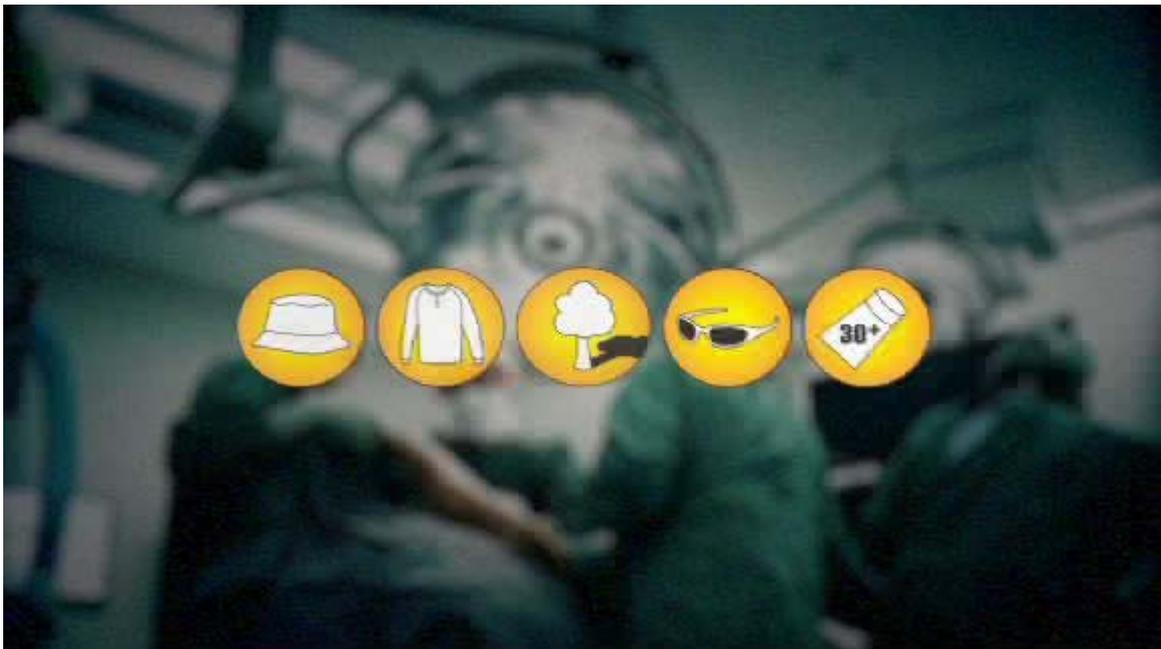
B

APPENDIX B – CAMPAIGN MATERIALS

TVC

A selection of stills from the TVC is shown below.







The script from the TVC was as follows.

SFX: Operating theatre SFX

The commercial opens with a Doctor in operating garb talking to camera.

Super: Melanoma Surgeon, Royal Prince Alfred Hospital

Doctor: Every year almost 400,000 Australians are diagnosed with skin cancer. You could say it's our national cancer.

We now see the Doctor looking at a Lymphatic map. He gestures towards the lightbox. We cut to the Doctor preparing to operate on the girl.

Doctor: Tanya's 22, and thought treating melanoma meant simply removing a mole ...

We cut to the Doctor cutting a skin cancer out of the girl's back.

Doctor: ... but don't be fooled - skin cancer can kill.

We cut back to the Doctor talking to camera.

Doctor: Outdoors you can't just rely on sunscreen. Protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen.

Five icons appear: a hat, clothing, shade, sunglasses and sunscreen,

We cut back to the Professor in the operating theatre talking to screen:

Doctor: **Do that out there to avoid ending up in here.**

Super: The Australian Government logo.

 Authorised by the Australian Government, Canberra. Spoken by J. Thompson
and B Borgia

V/O: **Authorised by the Australian Government, Canberra**

Print and outdoor

The three print advertisements used as part of the first phase of the campaign were as follows. The one entitled "There is a lot more to treating skin cancer than removing a mole" was also used in outdoor advertising.

Advertisement

**IF THIS OFFENDS YOU,
COVER YOUR EYES, BACK,
CHEST, LEGS AND ARMS**

You're looking at a melanoma, a potentially lethal skin cancer, being removed from a 22-year old. It's shocking, but sadly not unusual. Melanoma is the most common form of life threatening cancer

In 15 to 24-year olds. Outdoors you can't just rely on sunscreen. Protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. australia.gov.au/skincancer



PROTECT YOURSELF IN FIVE WAYS FROM SKIN CANCER



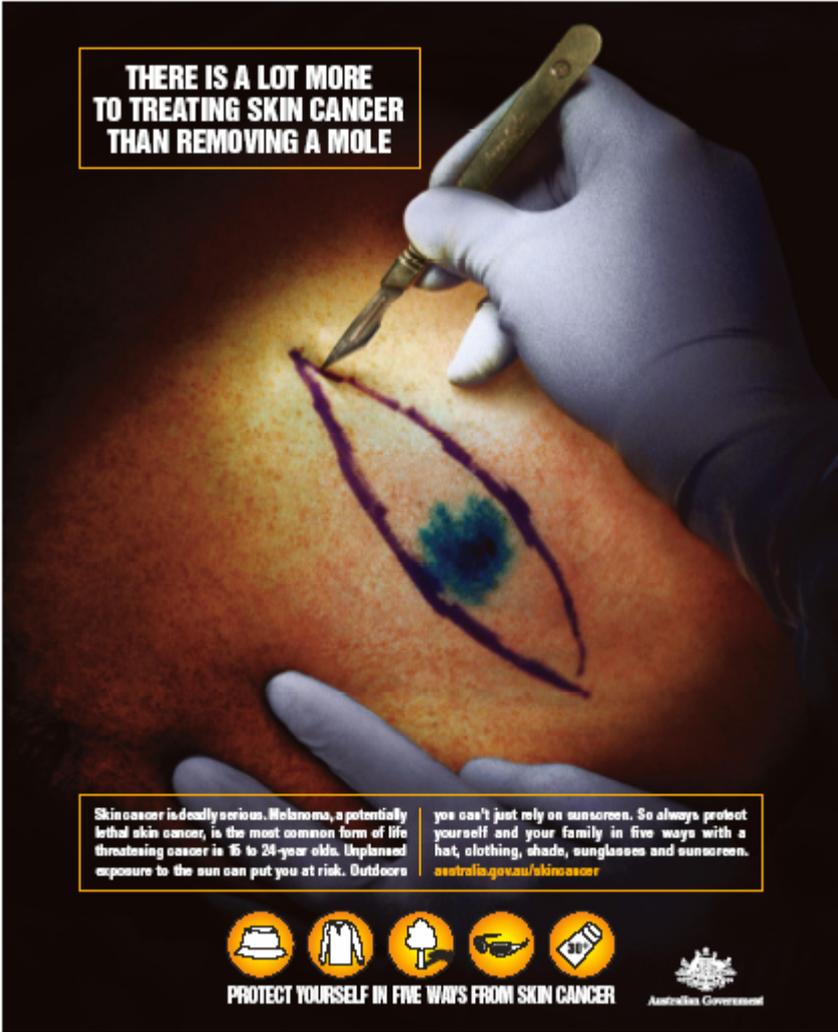
Authorised by the Australian Government, Capital Hill, Canberra



Ipsos-Eureka
Social Research Institute

Advertisement

**THERE IS A LOT MORE
TO TREATING SKIN CANCER
THAN REMOVING A MOLE**



Skin cancer is deadly serious. Melanoma, a potentially lethal skin cancer, is the most common form of life threatening cancer in 15 to 24-year olds. Unplanned exposure to the sun can put you at risk. Outdoors

you can't just rely on sunscreen. So always protect yourself and your family in five ways with a hat, clothing, shade, sunglasses and sunscreen. australia.gov.au/skincancer



PROTECT YOURSELF IN FIVE WAYS FROM SKIN CANCER



Adapted by the Australian Government, Capital Hill, Canberra



Ipsos-Eureka
Social Research Institute

Advertisement

**NOT EVERYONE
WITH MELANOMA DIES,
SOME JUST
GO THROUGH HELL**

This book belongs to a 22-year old. She'll now be scarred for life. But her ordeal has only just begun. Once the melanoma is removed she'll need regular check ups to make sure the cancer hasn't spread. All she can do is wait. She won't be alone. Melanoma is now the most common form of life threatening cancer in 15 to 24-year olds. Outdoors you can't just rely on sunscreens. Protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. australia.gov.au/skincancer













PROTECT YOURSELF IN FIVE WAYS FROM SKIN CANCER

Australia Government

Adapted by the Australian Government, Cap 6418, Canberra

A new print and outdoor advertisement, with two slightly different executions (see following), was used in the second phase of the campaign.

Advertisement

BACKYARD CRICKET GAMES

POOL PARTY

TENNIS WITH FRIENDS

OUTDOOR CONCERT

BARBECUE AT SAM'S

**SURGERY COULDN'T
GET ALL THE CANCER**

DON'T LET YOUR TIME IN THE SUN CATCH UP WITH YOU.

When you spend time in the sun without protection, you're increasing your risk of skin cancer. It doesn't matter whether you're at the beach, at the park, or simply in the backyard – it all adds up. So always protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. australia.gov.au/skincancer

PROTECT YOURSELF IN FIVE WAYS FROM SKIN CANCER

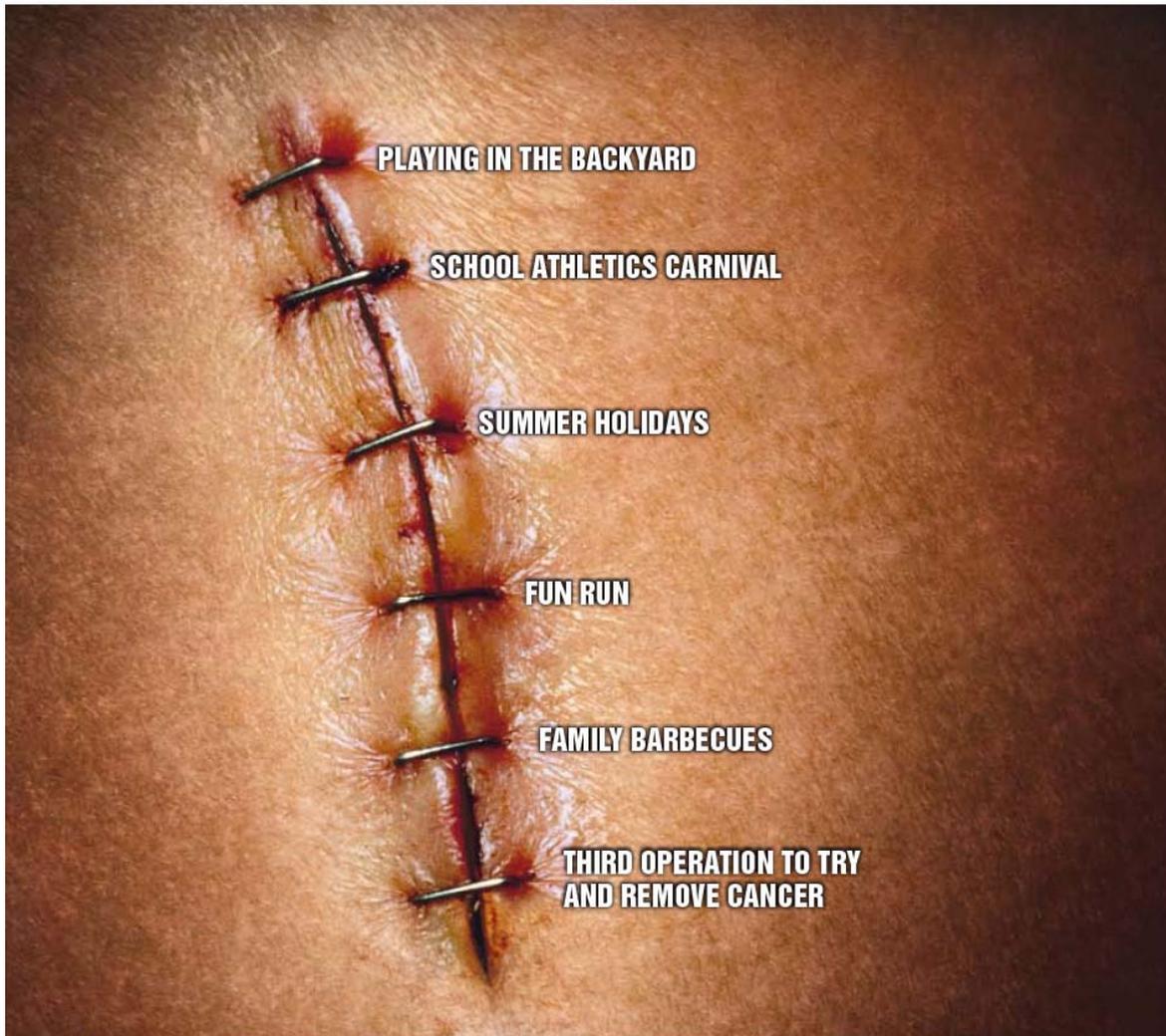
Australian Government

Authorised by the Australian Government, Capital Hill, Canberra



Ipsos-Eureka
Social Research Institute

Department of Health and Ageing
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PLAYING IN THE BACKYARD

SCHOOL ATHLETICS CARNIVAL

SUMMER HOLIDAYS

FUN RUN

FAMILY BARBECUES

**THIRD OPERATION TO TRY
AND REMOVE CANCER**

DON'T LET YOUR TIME IN THE SUN CATCH UP WITH YOU.

Time spent in the sun without protection increases the risk of skin cancer. It doesn't matter whether it's at the beach, at the park, or simply in the backyard – it all adds up. So always protect yourself and your family in five ways with a hat, clothing, shade, sunglasses and sunscreen. australia.gov.au/skincancer



PROTECT YOURSELF IN FIVE WAYS FROM SKIN CANCER



Australian Government

Authorised by the Australian Government, Capital Hill, Canberra

Radio

Radio scripts from the advertisements used in the campaign are provided below. The “doctor” radio advertisement was only used for NESB audiences.

MCG 30'

VO: Every year almost 400,000 Australians are diagnosed with skin cancer.

That's enough people to fill the MCG four times over.

SFX: huge crowd noise from a packed stadium.

VO: Outdoors, you can't just rely on sunscreen. Protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. Do that to avoid ending up with skin cancer.

Authorised by the Australian Government, Canberra.

Spoken by B Borgia

WORLD CHAMPS 30'

SFX: crowd cheering at a footy match

SFX: outdoor ambience

MVO: Australia leads the world in many things - including death from skin cancer.

It's one thing we're world champions at, that would be better if we ran last.

Outdoors, you can't just rely on sunscreen. Protect yourself with a hat, clothing, shade, sunglasses and sunscreen. Do that to avoid ending up with skin cancer.

Because that's something really worth cheering about.

VO: Authorised by the Australian Government, Canberra.

Spoken by B Borgia

DOCTOR 30'

SFX: Beeping of hospital machines, hospital SFX

Dr Thompson: Hi, I'm a Melanoma surgeon from Royal Prince Alfred Hospital. Every year almost 400,000 Australians are diagnosed with skin cancer. In fact, I'm about to operate on a 22-year old. She thought treating melanoma meant simply removing a mole, but skin cancer can kill. When you're outdoors, you can't just rely on sunscreen. Protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. Do that out there to avoid ending up in here.

VO: Authorised by the Australian Government, Canberra.

Spoken by J. Thompson

Stapler 30'

SFX: STAPLER

VO: This is the sound of a surgical stapler used to close a wound after operating. In this case, I've removed a melanoma. Spending time in the sun unprotected puts you at risk, whether it's at the beach,

SFX: Stapler

VO: the park,

SFX: Stapler

VO: or the backyard.

SFX: Stapler

VO: So always protect yourself in five ways with a hat, clothing, shade, sunglasses and sunscreen. Do that out there, to avoid ending up in here.

Authorised by The Australian Government, Canberra. Spoken by J Thompson.

APPENDIX C – QUESTIONNAIRE**NATIONAL SKIN CANCER CAMPAIGN
- EVALUATION QUESTIONNAIRE -**

**IN DATA FILE, INCLUDE DATE OF SURVEY COMPLETION
EUREKA TO RECORD INFORMATION ABOUT LOCAL WEATHER FOR
EACH DAY OF FIELDWORK (CAPITAL CITIES)**

SAMPLE:

n=1,000 18-24 years – APPLY QUOTAS FOR AGE X GENDER, METRO V NON-METRO

n=1,000 14-17 years – APPLY QUOTAS FOR AGE X GENDER, METRO V NON-METRO

Screener

S1. Your gender? [SINGLE RESPONSE]

Male..... 1

Female 2

S2. Your age? [SINGLE RESPONSE]

14-15 years1

16-17 years2

18-21 years3

22-24 years4

25-34 years5

35-44 years6

45-54 years7

55+ years.....8

Skin Type

1. How would you describe your skin colour, when you don't have a tan? [SINGLE RESPONSE]

- Very fair..... 1
- Fair..... 2
- Medium 3
- Olive 4
- Dark 5
- Black..... 6

Sun Tanning Behaviour

2. Have you tried to get a suntan at all within the last 2 weeks? [SINGLE RESPONSE]

- Yes..... 1
- No 2

3. How often in the last 2 weeks have you experienced any reddening of the skin after being in the sun? [NUMERIC]

4. **Where were you** and **what were you doing** last time you experienced reddening of the skin after being in the sun? Please make sure you answer both parts of this question.

5. How sunburnt were you? [SINGLE RESPONSE]

- Red without being tender..... 1
- Red and tender 2
- Red, tender and blistered 3

Sun Protection Knowledge & Behaviour

6. Please list all the ways that someone can protect themselves from the sun when outdoors. [TO BE CODED AS FIRST THEN SUBSEQUENT MENTION]

7. When you are outside on a typical summer day, how often do you do the following things to protect yourself from the sun?

RANDOMISE BEHAVIOURS (ensure “apply sunscreen to face” appears before “apply sunscreen to exposed body parts)

	Never	Rarely	Sometime s	Usual y	Alway s
--	-------	--------	---------------	------------	------------

Wear a hat	1	2	3	4	5
Wear clothing that protects your skin	1	2	3	4	5
Wear sunglasses	1	2	3	4	5
Stay in the shade when outdoors	1	2	3	4	5
Apply sunscreen to face	1	2	3	4	5
Apply sunscreen to exposed body parts	1	2	3	4	5

8. [IF WEAR A HAT SOMETIMES OR MORE OFTEN AT Q7] I usually wear ...
[SINGLE RESPONSE]

INSERT IMAGES OF HATS.

- Visor 1
- Cap without flap covering back of neck..... 2
- Cap with a flap covering back of neck (legionnaire's).... 3
- Hat with a narrow brim (bucket hat) 4
- Hat with a broad brim..... 5

9. [IF WEAR SUNSCREEN ON FACE OR BODY SOMETIMES OR MORE OFTEN AT Q7] What do you normally do in these situations? [MULTIPLE RESPONSE. RANDOMISE SITUATIONS]

	Wear sunscreen	Wear a hat	Wear sunglasses	Wear clothing that protects my skin	Try to stay in the shade	None of these	Not relevant
When I'm at the beach or outdoor pool, I normally...							
When I'm at a park, I normally...							
At lunchtime at school, university or work, I normally...							
When I'm at an outdoor café, pub or restaurant, I normally...							
When I'm going for a walk, I normally...							

10. How effective would you say the following behaviours are in protecting yourself from the sun? **RANDOMISE BEHAVIOURS**

[USE ELEVEN POINT SCALE WITH RADAR DOTS, WITH THE FAR LEFT POINT LABELLED 'NOT AT ALL EFFECTIVE', AND THE FAR RIGHT LABELLED 'EXTREMELY EFFECTIVE']

	0 Not at all effective	1	2	3	4 etc
Wearing a hat					
Applying sunscreen					
Staying out of the sun/in the shade					
Wear clothing that protects your skin					
Wearing sunglasses					

11. How much you agree or disagree with the following statements? **SINGLE RESPONSE**

RANDOMISE STATEMENTS

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Skin cancers mainly occur in people with fair skin	1	2	3	4	5
When used properly, sunscreen is an adequate protection on its own	1	2	3	4	5
Treating skin cancer is a simple procedure	1	2	3	4	5
Small amounts of sun exposure without protection is healthy and won't lead to skin damage	1	2	3	4	5
Having my skin checked regularly is sufficient to prevent skin cancers	1	2	3	4	5
Skin cancers can kill	1	2	3	4	5
Skin cancers only affect older people who have spent years in the sun	1	2	3	4	5
It is safe to tan gradually, as long as you don't get burnt	1	2	3	4	5
Even using all the recommended sun protection, I would still get plenty of Vitamin D	1	2	3	4	5

13. [AGED 18+] How often, if at all, do you get your skin checked by a doctor? [SINGLE RESPONSE]

- More often than every 6 months..... 1
- Every 6-12 months 2
- Every 1-2 years..... 3
- Less often than every 2 years 4
- Never 5
- Only if I notice a problem 6

14. [AGED 18+] Do you intend to get your skin checked by a doctor within the next year? SINGLE RESPONSE

- Yes..... 1
- No 2

Advertising

TVC

15. Have you seen any TV advertising in the last 3 months about protecting yourself from the harmful effects of the sun? SINGLE RESPONSE

- Yes..... 1
- No 2 GO TO Q18.

16. Please describe the first ad you remember seeing?

17. What was the main message in that advertisement?

18. [WAVE TWO ONLY] Please look at this advertisement.
[USE STILLS FOR DIAL-UP, AND MPEG FOR BROADBAND]

- Before today, I have seen this ad
- Never
- Once
- 2-3 times
- 4-5 times

6 or more times

19. [SEEN ONCE OR MORE] What do you think was the main message of this advertisement? [READ OUT. RANDOMISE]

20. [SEEN ONCE OR MORE] Please rate your agreement with the following:
[RANDOMISE]

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The ad was believable	1	2	3	4	5
The ad was attention-grabbing	1	2	3	4	5
The ad made me think about my own risk of developing skin cancer	1	2	3	4	5
The ad was informative	1	2	3	4	5

21. [SEEN ONCE OR MORE] Has this ad prompted you to use sun protection methods

...

- More often
- Less often
- No change

22. [SEEN ONCE OR MORE] Has this ad prompted you to protect yourself from the sun in ...

- More ways
- Fewer ways
- No change

RADIO

23. [WAVE TWO ONLY] Please listen to this radio ad.
[EXEXECUTION A]

Before today, have you heard this ad?

- Yes
- No

24. [WAVE TWO ONLY] Please listen to this radio ad.
[EXEXECUTION B]

Before today, have you heard this ad?

Yes

No

PRINT

25. [WAVE TWO ONLY] Which of these advertisements have you seen before today?
[INSERT IMAGES]

Blue cord 1

Etc..... 2

None 3

Demographics

26. Your annual household income ... [PLEASE GUESS IF NEEDED]

Up to \$30,000	1
\$30,001-60,000	2
\$60,001-\$100,000	3
\$100,001-\$150,000	4
Over \$150,000	5
Refused	8
Unable to estimate	9

27. [IF 18 OR ABOVE] Your employment status?

Working full-time	1
Working part-time or as a casual	2
Retired	3
Student	4
Home duties	5
Unemployed or looking for work	6
Other	7

28. The occupation of the main income earner in my household (please give a detailed description)

[CODE AS PER ASCO 1 DIGIT.]

29. Your postcode (please type in)

Concluding script

This survey has been carried out on behalf of the Australian Government Department of Health and Ageing. It is being conducted to measure the effectiveness of a campaign aimed at raising awareness of skin cancer and encouraging Australians to protect themselves from the harmful effects of the sun.

Thank you for your participation



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[CLIENT LOGO]