

## Health Promotion Agency research – driving changes to the Sun Protection Alert

Rebecca Bell<sup>1</sup>, Barbara Hegan<sup>2</sup>, Clare Lawrence<sup>3</sup>, John Gao<sup>4</sup>, Johnny Akatapurua<sup>5</sup>, Tom Grinstead<sup>6</sup>, Eddie Samuel<sup>7</sup>

1-5. Health Promotion Agency, Wellington, New Zealand

6-7. Sparks Interactive, Wellington, New Zealand

**Abstract.** This presentation provides a summary of the Health Promotion Agency's (HPA) recent research findings relating to our Sun Protection Alert communication tool (SPA). This research included national surveys and consumer testing. We discuss how these findings have highlighted ways that the SPA could be improved to increase understanding, personal relevance and uptake by the public.

### The current Sun Protection Alert

The SPA was released in the summer of 2011/12. As illustrated in Figure 1 below, the SPA is a communication device that provides the recommended time of day for sun protection (i.e. when UV levels are 3 or higher). It was developed to complement NIWA's daily UVI forecasts. It displays the time period when protection is recommended for a given day and location in New Zealand. It also provides a behavioural message<sup>1</sup>. In this example: Seek shade, reapply sunscreen.



Figure 1. An example of the current SPA.

### What does HPA research say about consumer awareness and understanding of the SPA?

Since its release in 2011, findings from nationally-representative surveys (2016) and 2016 and 2017 consumer research suggested there was value in re-assessing consumer awareness and understanding of the SPA. For example, the Health and Lifestyles Survey (HLS, 2016) showed that even when prompted with an image of the SPA, 67% of respondents reported they had not seen it before.

The Sun Exposure Survey (SES, 2016) showed that 44% of respondents were not aware of a feature in the weather forecast with information on times of the day when sun protection was recommended. The SES 2016 also highlighted misconceptions about when sun protection is needed: 46% of respondents reported relying on information about the temperature to prompt them about sun protection (i.e. 'when it's hot I might think about and/or use sun protection'), compared with approximately 10% who relied on tools that convey UV-specific information; namely, the SPA tool, or UV Index.

Similar to the misconception of relying on temperature (specifically heat), consumer research showed participants

typically thought about sun protection only when it was sunny. This research also highlighted that sunscreen was often mentioned as the only form of sun protection, with very few reporting they would use the five recommended SunSmart steps: Slip, Slip, Slop, Slap and Wrap.

Consumer research also highlighted that the time period for which protection was recommended was often interpreted as unrealistically long. Rather than understanding that sun protection is required the *whole time* between for example, 10:00am-4:30pm as in Figure 1, and not required after 4:30pm, consumers' defaulted to inaccurate assumptions. These included (i) that protection was only required around lunchtime given that is typically the hottest and/or sunniest time of the day, (ii) that if 'protection' was used, it would be sunscreen only (the use of clothing, shade, hat and sunglasses was rarely mentioned). Consumers also suggested that real-time information about when sun protection was required would be of greater value than a fixed time range.

Taken together, even when people know about the SPA, they do not routinely follow through and use all five SunSmart steps when UVI is 3 and higher. This is partly explained by consumers discounting information about the time period because it seems unrealistically long. It is also partly explained by commonly-held misconceptions that protection is only required when the weather is hot and/or sunny, and that sunscreen is the only SunSmart step. To that end, the aim of HPA's 2017 consumer research was to explore how the SPA could be improved in its digital format. We conducted three rounds of consumer testing with two broad aims:

- 1) to explore whether small variations to the current SPA's messaging influenced consumers understanding of the need to protect the entire recommended time, and consumer's intention to protect
- 2) to explore which 2011 SPA design features best supported comprehension about when and how to protect.

### Method

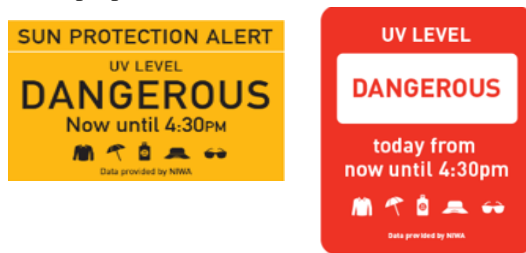
Staff from the HPA collaborated with Sparks Interactive to develop alternative SPA designs for consumer testing. We adopted an iterative approach whereby the specific focus for each round of testing was informed by insights from the previous round. Using convenience sampling, we recruited participants aged 18 years and over with the majority reporting being sunburned the previous summer

<sup>1</sup> There are currently six behavioural messages that can be used

( $N = 128^2$ ). Each round of testing involved in-person interviews with both qualitative and quantitative components. Interviews took between 5-10 minutes.

## Results and Discussion

The results from each round of testing collectively contributed to the development of two alternative design options (see Figures 2 and 3). One alternative was designed to have a similar look and feel to the current SPA; the other was designed to be significantly different. This was in response to general feedback from testing that one size does not fit all and different design options can meet different consumer needs to support individual understanding. We also wanted to test that the current design was still the best fit for purpose.



**Figure 2 (yellow)** Alternative design option with similar look and feel to current SPA. **Figure 3 (red)** Alternative design option with new look and feel.

The following insights informed the iterative design process and progression from the current SPA to identify the two alternative designs. First, we tested whether small variations to current SPA messaging influenced people's understanding of the need to protect the whole time within the specified time range. Regardless of wording, some participants still discounted the time range and expressed inaccurate beliefs that within the time range, protection would only be required around lunch time and during warm, sunny weather. However, three options for wording changes held promise: 1) framing the time range as "Now until 4:30pm" to convey real-time information, 2) including the message that "UV levels are dangerous" to stress the importance of protection, 3) including an element of personalisation (e.g., "Protect yourself"). Collectively, framing messaging in these ways translated into small increases in participants' self-reported intention to protect if they were to go outside. This intention to protect applied to both earlier and later periods within the stated time range, suggesting small shifts in understanding that protection is required throughout the recommended time range.

Second, we applied the insights about wording, to explore which design features best supported comprehension about when and how to protect. Four alternative designs were developed each of which differed from the current SPA in deliberate ways as informed by the iterative research approach: the SPA title and sun icon were removed to minimise the inaccurate belief that protection is only required when sunny; a melanoma picture was included to emphasise possible consequences of not using sun protection, messaging was personalised, the colour scheme was altered to red to reinforce the danger associated with high UV levels, and text about SunSmart behaviours

was swapped out and replaced with SunSmart icons to convey the call to action that **all five** SunSmart steps are required for sun protection. We found that whilst removing the sun icon from designs partly mitigated the inaccurate belief that protection is only required on sunny days, keeping the "Sun Protection Alert" title was crucial as participants found the call to action harder to understand when this was not included (ie, the title provides the context for the call to action). The inclusion of skin cancer imagery to highlight consequences of not protecting distracted participants from the call to action. Likewise, altering the messaging from impersonal ("Protection Required") to personal ("Protect Yourself") had the unintended consequence of priming people to think about how they would usually protect, rather than taking notice of the call to action in the SPA. Therefore, the inclusion of the skin cancer imagery and personalising the messaging were eliminated from further testing.

The red SPA design option (Figure 3) worked well for participants who reported that the association between red and danger paired with the bold "DANGEROUS" word caught their attention and reinforced the importance of using protection to avoid the risk of damage. Similarly, the pairing of yellow and black (Figure 2) reinforced the hazardous nature of harmful UV levels. The majority of participants understood the call to action to Slip, Slip, Slop, Slap and Wrap depicted by the five SunSmart icons; a promising way to convey the importance of using all five SunSmart steps without cluttering the SPA with additional text. It may also help consumers with low literacy and/or non-English speakers.

## Conclusions and next steps

- Both alternative designs (figure 2 and 3) represent promising options for the SPA going forward. The combination of the alert title, colour schemes, SunSmart icons and bold text to highlight danger, help to convey when protection is required, how to protect, and why protection is important in a clear way.
- We acknowledge that any changes to the SPA in our iterative testing did not completely mitigate misconceptions about UV or inaccurate beliefs about the sun and temperature being important triggers for sun protection. This highlights the importance of continuing to refine accessible ways to understand UV. Future marketing and promotion efforts to increase reach and public awareness of the SPA digitally may support this crucial ongoing education.

## References

- Health Promotion Agency. (2017). 2016 Health and Lifestyles Survey Questionnaire. Wellington: Health Promotion Agency Research and Evaluation Unit.
- Health Promotion Agency (2016). Sun Exposure Survey 2016 Questionnaire. Wellington: Health Promotion Agency.

<sup>2</sup> Interviewees were recruited from central Wellington street intercepts, personal networks, new HPA staff who were unaware of the SPA, tertiary institutions, and public swimming pools.