

## **Process evaluation of an innovative sun protection intervention targeting adolescents**

*Sandra C. Jones, Centre for Health Initiatives, University of Wollongong*

*Keryn Johnson, Centre for Health Initiatives, University of Wollongong*

*Don Iverson, Illawarra Health & Medical Research Institute, University of Wollongong*

*Jeffrey Thom, Centre for Digital Ecosystems, University of Wollongong*

### **Abstract**

The purpose of the current intervention was to target a defined segment of the adolescent population with a sun protection 'offering' that positioned sun protection as beneficial and addressed identified barriers (particularly inconvenience and image). A community intervention was conducted in one defined geographic region over the 2009/2010 Summer school holidays. Key elements of the intervention included the distribution of augmented products, promotional materials with a pre-tested impactful message, and partnerships with community and commercial organisations. The intervention was successful in creating interest and attention among adolescents. This paper reports on the process evaluations, focusing on barriers, facilitators and lessons learned.

Keywords: adolescents, sun protection, community intervention, process evaluation

**NOTE:** Some of the data reported in this paper was presented at the 2010 Social Marketing in Public Health conference in Tampa, Florida; that conference is an abstract-only, with no published proceedings, and the information in this paper has not been published elsewhere.

## Process evaluation of an innovative sun protection intervention targeting adolescents

### Introduction

Childhood and adolescence are recognized as the most vulnerable periods for increasing skin cancer risk (Weinstock *et al.*, 1989; NSW Health and The Cancer Council NSW, 2001; Australian Institute of Health and Welfare 2008). However, despite twenty-five years of mass media and programs aimed at sun protective behaviours in the Australian community, sun protection practices among Australian adolescents have continued to decline (Livingston *et al.*, 2003).

Overall, in Australia and internationally, sun protection behaviours among adolescents are poor, with only around a third adopting each of the five main sun protective behaviours of wearing a hat, long-sleeve shirt, applying sunscreen, wearing sunglasses and seeking shade (Lovato *et al.*, 1998; Geller *et al.*, 2002; Kristjansson *et al.*, 2004; Centre for Behavioural Research in Cancer, 2005a; 2005b). This means that the majority of adolescents are poorly protected from the effects of sun exposure.

Our *formative research* has highlighted that many adolescents are aware of the need for sun protection and have mostly positive intentions to protect themselves from the sun, but also perceive a number of barriers to 'adequate' sun protection (Lynch and Jones, 2007). These barriers include those related to issues of *self-efficacy* such as forgetfulness, unpreparedness, or laziness; and those related to the *social norms* surrounding sun protection and the perceived benefits of tanned skin, such as the 'uncool' image associated with wearing sun protective clothing, and individual and peer group attitudes on the need for a tan. Therefore, improving adolescents' perceptions of susceptibility and severity for skin cancer (a focus of many sun protection programs targeting adolescents) will probably not change their sun protective behaviours if nothing is done to *reduce the barriers* they perceive to sun protection, or to *offer benefits* which are important to them.

While it is often difficult to markedly alter the 'product' of social marketing interventions, social marketers can and do attempt to alter the *image* of the product and where it sits in relation to the competition in the target group's mind (Hastings, 2003). As review of previous sun protection interventions for adolescents and young adults has shown the general efficacy of appearance-based interventions in producing positive sun protection behaviour change (for example, Mahler *et al.*, 2005; 2007; Olson *et al.*, 2008), we suggest that sun protection interventions targeting adolescents and young adults need to move the positioning of sun protection away from a singular focus on the 'prevention of skin cancer' to a positioning that includes the 'prevention of skin damage' (Johnson, *unpublished thesis*).

Sun protection has traditionally been branded as a 'cancer prevention' behaviour rather than an appearance-enhancing behaviour; and, in the main, branded as a 'children's behaviour' with a strong focus on the need to protect children from sun exposure via school-based

programs and mass media campaigns such as 'Slip Slop Slap' (Montague *et al.*, 2001). Evans *et al.* (2008) in a review of public health branding argued that the complex and long-term nature of health behaviour change makes "the use of effective branding strategies a key objective for public health" (p. 722)

## **Purpose**

The purpose of the current intervention was to target a defined segment of the adolescent population with a sun protection 'offering' that positioned sun protection as beneficial and addressed identified barriers (particularly inconvenience and image). The target group was Year 9 and 10 students (aged 14-16 years) who: are aware of the need for sun protection but often don't protect themselves as they forget, are unprepared, or lazy; may sometimes want to get a bit of a tan, and so limit their sun protection or do not reapply sunscreen; know about the risks of skin cancer but see this risk is a long way off, and do not realise how much damage they have already done to their skin; and feel it is too difficult to protect properly all the time.

## **Method**

The community intervention was conducted in one community (Illawarra region of New South Wales) over the 2009/2010 Summer school holidays. The aim of the intervention was to position sun protection as an appearance and health enhancing behaviour that can fit easily within the lifestyle of adolescents and young adults, and the objectives of the community intervention to:

- promote awareness of the need for sun protection at the 'point of decision' (i.e., while young people are out in the sun)
- communicate the key campaign messages in a fun and interactive format
- engage young people in co-creation of the intervention, and provide 'cues to action'

The materials and messages in this campaign were developed by an advertising agency and extensively tested with young people (Jones *et al.*, 2010). This consisted of both *formative research*, to identify the key benefits and positioning, and message-testing research to ensure the materials conveyed the correct message. Thus the primary and secondary target groups were those identified through the formative research as most amenable to change and which constituted a substantial component of the adolescent population (Lynch and Jones, 2007). The primary target group for the intervention was 'Forgetful Attempters', a group who have generally positive attitudes towards sun protection, but need 'reminders' to sun protect; and the secondary audience was 'Risk Reducers', who are aware of the risks of sun exposure but perceive that 'some' exposure is both safe and desirable.

The underlying theoretical framework, which drove both the development of advertising messages and the suite of campaign activities was Social Cognitive Theory (Bandura, 1997). Thus, the use of the visual images of the UV-photographed models and the associated UV-camera activities (expectations, expectancies, observational learning);

distribution of augmented products (reinforcements, self-efficacy) and the information leaflets and website (environment, behavioural capability).<sup>1</sup>

The focus of the intervention – reflected in the tagline “Don’t let the sun get under your skin” – was on the invisible skin damage caused by sun exposure; as the formative research (and the literature) identified that among this demographic immediate appearance effects were more salient and motivating than long-term health effects.

As well as the *actual product* (reduction in sun damage), the intervention provided *augmented products* that were designed to address the identified barriers: ‘image’ (by making sun protection ‘cool’); ‘efficacy’ (by making sun protection ‘easy’); and ‘forgetfulness’ (by providing a constant reminder). These tangible products included sunscreen samples (donated by manufacturers), UV-wristbands, glow-in-the-dark wristbands, bookmarks, and laptop stickers (tapping into ‘computers for schools’).

The community intervention consisted of two main components. First, the distribution of collectable materials (described above) conveying the key intervention messages. Second, concurrent with the distribution, free UV photographs were offered to teenagers in local shopping areas on Thursday nights (late-night trading) and weekends. These components were supported by competitions for secondary school students (entry forms distributed with intervention materials), a Facebook page, and a website ([dontletthesungetunderyourskin.com.au](http://dontletthesungetunderyourskin.com.au)) which enabled young people to develop their own sun protection messages.

The region was divided into three ‘zones’ for the delivery of the intervention: Central (Wollongong city) North (from the city up to Thirroul), and South (from the city down to Shellharbour). Each of the Zones was then divided into locations based on the location of aquatic and non-aquatic activities and included that the target audience would be likely to participate in during the Summer holiday. In choosing the specific locations, extensive community consultation was undertaken – incorporating school administrators, local and state government agencies, youth services (such as youth centres and the Police Citizen Youth Clubs), and council staff responsible for community services at beaches, pools, parks and sporting grounds. As the youth workers identified local shopping centres as key locations where the target market often spent time, negotiations were undertaken with Centre management staff to secure permission to set up booths during weekends and Thursday late night shopping.

The intervention ran from the 4th until the 27th January (school holidays). ‘Sun teams’ worked for 4 hours each day, and were provided with an extensive list of locations in the targeted zone. Sun teams visited at least 4 locations in the targeted zone, and recorded details of the number and nature of contacts in each location. One of two packs were distributed each day (alternating)

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<sup>1</sup> This is only a brief overview of some of the theoretical components (due to space limitations)

- Pack A: UV wristband (changes colour when in the sun), wristband info sheet, sticker, Le Tan sunscreen sample, competition info.
- Pack B: Glow-in-the-dark wristband, wristband info sheet, sticker, Banana Boat sunscreen sample, competition info.

In addition, we handed out branded tote bags with the first 50 packs each day. Wherever possible teams also put up posters in stores and community facilities, and left bookmarks in libraries and bookshops

The UV photo sessions took place in shopping centres in the three zones and were stationary. In Central Zone and South Zone an additional session was conducted in a youth centre. Everyone who had their UV photo taken received a sunscreen pouch and a competition information flyer. The target age was 15 – 16 years but all interested secondary school students could receive the material and/or have their UV photo taken.

## Results

The intervention was well received by adolescents, with field workers reporting young people seeking them out at the intervention locations and regularly exceeding the targets for material distribution. The partnerships with the advertising agency and donations from commercial sunscreen companies meant that the intervention was relatively low-cost. Anecdotal feedback from adolescents (and parents and teachers) was that the message resonated with young people and that the focus on general ‘skin damage’ rather than cancer was seen as relevant and motivating.

The use of two different “packs” on different days was successful in creating a bit of a chase amongst the adolescents to find the teams on another day. The UV wristbands proved to be very popular with those who had heard about them and hadn’t got them tracking down the team (particularly in the Central Zone). As shown in table 1, a total of 2220 ‘sun packs’ were distributed to adolescents over the four weeks of intervention (1328 of Pack A and 892 of Pack B, demonstrating the popularity of the UV wristband provided in Pack A). The ‘sun teams’ also distributed 747 tote bags (exhausting the allocated supplies on all but one distribution day) and put up 141 posters in community locations.

Table 1: Distribution of ‘sun packs’ and other promotional materials

	North Zone	South Zone	Central Zone	TOTAL
Pack A	256	372	700	1,328
Pack B	350	292	250	892
Tote bags	247	200	300	747
Bookmarks	50	50	20	120
A4/A3 posters	45	43	53	141

In addition, the ‘sun teams’ took a total of 308 UV photographs of teenagers in the target group; 159 in the Central zone, 103 in the South zone, and 46 in the North zone.

## **Discussion (and lessons learned)**

There was a strong tendency for adolescents to throw away the items that weren't immediately useful (i.e., competition forms, plastic bags) which was a potential problem. Unfortunately, we had a few (unseasonal) overcast, windy and cold days resulting in very low numbers of contacts on those days. There were low numbers of adolescents in the shopping centre in the North Zone. There were also some issues with the location of the camera booths in the centres – and with some having requirements on hours of attendance. Contrary to the effect of poor weather on the materials distribution, when the weather was hot and sunny there were few adolescents in the shopping centres

Parents were generally more interested in having their children's photos taken than the adolescents themselves. It appeared many adolescents were afraid of what they might find in the photo. However, the older the adolescents were the more interested they were. The photographers reported that often they just needed a bit of encouragement and some more information for them to agree to have their photo taken

We received very few entries for the competition (consistent with the responses we got when we were out in the field); with only one video and three posters submitted before the advertised deadline. This was unexpected as the prizes were fairly substantial. One reason was the environment where they received the materials – they were generally out for the day with friends and many didn't have bags on them (they just kept what was interesting to them on the spot). Others mentioned that if there is no one who keeps encouraging them (like a parent or teacher) it is too hard and they couldn't be bothered

## **Conclusion**

The adolescent demographic is significantly different in how it perceives and performs sun protection; it therefore needs interventions which acknowledge this difference, developing messages and strategies to minimise the barriers to sun protection and providing salient benefits which can be realised in the short rather than long term.

The use of an appearance-based harm minimisation approach for sun protection can allow social marketers to create strategies/messages more congruent with the prevailing social norms of this demographic, and, therefore, position sun protection as an appearance and health enhancing behaviour that can fit easily within the lifestyle of adolescents and young adults. Additionally, the development of an augmented product that is seen by young people as desirable can not only improve the 'image' of sun protection, but can act as an ongoing cue-to-action by reminding young people of the core benefit of the targeted behaviour. Our process evaluation suggests that the intervention was popular and well-received among adolescents. Importantly, feedback from the target group suggests that we were successful in re-branding sun protection as an appearance-enhancing (rather than cancer-preventing) behaviour; and that our intervention was seen as 'cool' and salient to adolescents (rather than children and parents). Subsequent outcome evaluations will determine whether this resulted in a change in sun protection attitudes and behaviours.

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