

# Awareness and impact of the 'Bubblewrap' advertising campaign among Aboriginal smokers in Western Australia

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## ABSTRACT

**Background** Antismoking mass media campaigns have been shown to reduce smoking prevalence in the mainstream community, however there is little published research on their effect on Aboriginal Australian smokers.

**Objectives** To evaluate the awareness and impact of a mainstream mass media advertising campaign (the 'Bubblewrap' campaign) on Aboriginal smokers in the state of Western Australia.

**Methods** A personal intercept survey was conducted in July 2008 across three sites (the Perth metropolitan area and the non-metropolitan towns of Kalgoorlie and Broome). An opportunity or convenience sampling strategy was used to recruit Aboriginal participants, and face-to-face interviews were conducted with 198 Aboriginal smokers to ascertain awareness of the campaign advertisements, whether they were seen as believable and relevant, and the impact the advertisements had on smoking behaviour.

**Results** The majority of the participants interviewed had seen and/or heard the 'Bubblewrap' campaign advertisements, although there was considerably greater awareness of the television advertisement than the radio advertisements. Both forms of advertising were considered to be believable and relevant by the majority of Aboriginal smokers. Most of the smokers interviewed thought about cutting down and/or quitting after seeing or hearing the advertisements.

**Conclusions** Our findings suggest that mainstream antismoking mass media campaigns can positively influence the thoughts and behaviours that Aboriginal smokers have, and exhibit, towards quitting smoking. Notwithstanding this, advertisers should continue to look for better ways to incorporate Aboriginal themes in campaign messages. Future mainstream antismoking campaigns should source sufficient funds to ensure that advertising messages reach the large Aboriginal populations in regional and remote Australia.

## INTRODUCTION

In Australia, Aboriginal adults are more than twice as likely as non-Aboriginal adults to be current daily smokers,<sup>1</sup> with more than half of all Aboriginal adults being regular smokers.<sup>2</sup> Tobacco smoking is one of the leading causes of morbidity and mortality among the Aboriginal population: it was responsible for 12% of the total burden of disease and 20% of deaths in 2003.<sup>3</sup> While the smoking prevalence among non-Aboriginal adults has decreased over the

last 10 years, the smoking prevalence among Aboriginal adults has remained constant.<sup>2</sup>

At least part of the decrease in smoking prevalence among non-Aboriginal adults in Australia can be attributed to antismoking mass media campaigns.<sup>4,5</sup> The two published studies that have evaluated the effect of these campaigns among Aboriginal people in Australia have found that they could recall mainstream mass media antismoking campaigns,<sup>6,7</sup> however the impact of these campaigns remains unclear.

This study aimed to evaluate the awareness and impact of a mainstream mass media advertising campaign (the 'Bubblewrap' campaign) on Aboriginal smokers in Western Australia.

## METHODS

### Advertising campaign

The Cancer Council Western Australia's 'Make Smoking History' campaign aired 'Bubblewrap' across the state of Western Australia in mid-2008. The 'Bubblewrap' concept was originally developed by Quit Victoria and had been run in Western Australia twice prior, both times in 2005. This campaign used the original 'Bubblewrap' television and radio advertisements in conjunction with a newly produced radio advertisement that specifically targeted adult Aboriginal smokers.

The 30-second television advertisement depicted a piece of plastic bubblewrap in the shape of lungs and showed a hand burning the bubbles one by one with a lit cigarette. The accompanying voiceover explains that lungs are made up of millions of tiny air sacs which are destroyed by chemicals found in tobacco smoke, and that this process is called emphysema. The television advertisement was broadcast on metropolitan, non-metropolitan and Indigenous stations in Western Australia. The original and new 60-second radio advertisements encouraged listeners to undertake a breathing exercise until they felt short of breath, to simulate the symptoms of emphysema. The new radio advertisement was narrated by popular fictional character, 'Mary G', portrayed by Western Australian Aboriginal identity Mark Bin Bakar. The original radio advertisement was aired on metropolitan and regional stations, while the new version was restricted to the audiences of regional and Indigenous stations. All advertisements can be viewed/heard at <http://www.cancerwa.asn.au/prevention/tobacco/makesmokinghistory/tvcampaigns/> (under the 'Bubblewrap' heading).

**Brief report**

Both forms of advertising were broadcast over 7 week campaign periods in May–June 2008; the television advertisement aired for 6 of 7 weeks from 11 May, while the radio advertisements were played for 4 weeks from 18 May. Measures of television advertising exposure suggest that the majority of the target audience (25–54 year olds) saw the television advertisement during the campaign period. Overall, an estimated 95.2% of the target audience was exposed to the advertisement at least once, and 86.1% was exposed three or more times. On average, people in the target audience saw the television advertisement 18 times over the campaign period.

The Target Audience Ratings Points (TARPs) measure is another way of gauging the reach of television advertising. TARPs were generally above 300 per week over the course of the campaign, in metropolitan and non-metropolitan areas of Western Australia. In total, the television advertisement received a total of 1848 TARPs in the Perth metropolitan area and 1473 in non-metropolitan parts of Western Australia.

**Evaluation**

The evaluation of the campaign was carried out in July 2008, and took place across three sites (the Perth metropolitan area and the non-metropolitan towns of Kalgoorlie and Broome) to provide a broadly representative mix of metropolitan and non-metropolitan participants. The study was conducted as a personal intercept survey, with face-to-face interviews held with Aboriginal smokers in various locations (medical and community centres, public spaces and main pedestrian thoroughfares, and at public events) within each of the three study sites. The locations were chosen in order to maximise exposure to the target group and enable access to a broad cross-section of Aboriginal people.

The study used an opportunity or convenience sampling strategy. Potential participants were approached consecutively in 2–3 h time periods, in normal business hours. Staff and clients were approached in medical and community centre settings, where access had been provided by prior agreement. To be eligible for the study, participants had to identify as being Aboriginal and/or Torres Strait Islander, and either smoke cigarettes regularly or have quit smoking within the 2 months prior to the interview.

The questionnaire assessed participants' awareness of the 'Bubblewrap' campaign, their understanding of the main message of the advertisements, and whether they found them relevant and believable. After initial screening for eligibility and collection of selected demographic characteristics (age group, sex, place of usual residence), participants were asked whether they had tried to quit or cut down in the 2 months leading up to the interview and whether they had seen any advertising about the effects of smoking over this period. All participants were prompted with a screen shot of the television advertisement and a verbal description of the radio advertisement, and asked an open-ended question regarding the main message of the advertisements.

Participants who stated that they had seen and/or heard the advertisements were asked whether the advertising had prompted a change in their cigarette consumption (cutting down or quitting), and whether they had sought more information on quitting from their doctor or health worker, or discussed quitting with friends/family, as a result of seeing or hearing the advertising. This set of questions, and those dealing with the relevance and believability of the advertisements, required a simple 'yes/no' response.

The project methodology encompassed ethical and cultural considerations consistent with the Kulunga Research Network's

Aboriginal research principles framework and commitment to Aboriginal capacity building. Aboriginal people were consulted and genuinely engaged at all stages of the research. Study participants gave verbal consent to conduct the survey and no information was collected that could personally identify any participant.

**Analysis**

After the enumeration phase of the study, questionnaires were checked for internal consistencies and coded in preparation for data entry. After entry, further validation was performed on unit records and aggregate data, and relevant 'cleaning' performed. The unit record file was subsequently systematically analysed (univariate and cross tabulation analysis) using SPSS V.15 (SPSS, Chicago, Illinois, USA) and Stata V.10 (StataCorp, College Station, Texas, USA).  $\chi^2$  tests were used to assess differences between study sites, sex and age groups, and McNemar  $\chi^2$  tests were used to assess differences between advertising mediums.

**RESULTS****Sample**

In total, 429 people were approached in the course of undertaking the fieldwork for this study. Over half of these people did not have a questionnaire administered on the basis of refusal or ineligibility (non-smoker and/or non-Aboriginal). Interviews were conducted with 198 Aboriginal smokers; this group constituted 46% of all people approached. The survey response rate (the number of consenting in-scope people expressed as a proportion of all in-scope people) was at least 72%. The sample had a relatively even age distribution, with roughly a quarter of the participants in each of the following age groups: 18–29 years; 30–39 years; 40–49 years; and 50 years and above. There were slightly more female participants (55%) than male participants (45%).

**Awareness of advertising campaign**

Most of the participants (165, or 83.3%) could recall seeing a television advertisement about the negative effects of smoking in the last 2 months and, when prompted, 178 (89.9%) could recall seeing the television advertisement featured in this campaign. At least 90% of the participants in each of the age groups under 50 years had seen the 'Bubblewrap' advertisement. Overall, participants aged 18–49 years were more likely to have seen the advertisement than participants aged 50 years and above (93.4% compared with 71.9%,  $p < 0.01$ ). Females were more likely to have seen the advertisement than males (95.4% compared with 83.2%,  $p < 0.01$ ), however there were no statistically significant differences in prompted awareness between the three study sites.

Less than a third (58, or 29.9%) of the participants could remember hearing an antismoking radio advertisement in the last 2 months, and, when prompted, 67 (34.0%) could recall the radio advertisement(s) featured in this campaign. These proportions highlight that there was significantly greater awareness of the television advertisement than the radio advertisement(s) ( $p < 0.01$ ). Participants in Broome were more likely to have heard the radio advertisement(s) than those in Perth (50.0% compared with 28.0%,  $p = 0.01$ ) and Kalgoorlie (50.0% compared with 25.5%,  $p < 0.01$ ). There were no statistically significant differences in prompted awareness of the radio advertisement(s) between age groups or by sex.

**Response to advertising campaign**

The majority of participants who had seen the television advertisement and/or heard the radio advertisement(s) thought

they were believable (87.6% and 82.5% respectively,  $p$  value for difference=0.74). Most participants also agreed that the television and radio advertisements were personally relevant to them (83.7% and 77.4% respectively,  $p$  value for difference=0.53).

Most participants (81.1%) stated that the advertising made them think about cutting down the amount they smoked, while 68.1% of participants thought about quitting after seeing and/or hearing the advertisements.

The majority of participants (59.0%) said that, as a result of the advertising, they had talked to family and friends about quitting, and 26.5% said that they got more information about quitting from their doctor or health worker as a result of the advertising.

Responses to the advertising campaign did not significantly differ across age groups or study sites, or by sex.

### Smoking behaviour

A quarter (25.1%) of the participants indicated that they had tried to quit in the 2 months prior to the study, while another 31.8% said that they had attempted to cut down. Overall, 30.3% of participants had successfully cut down their smoking to some degree in the last 2 months, while 1.5% had successfully quit smoking in the 2 months prior to the survey.

### DISCUSSION

This study was one of the first large-scale evaluations of a mass media antismoking campaign conducted exclusively with Aboriginal people in Australia. The results suggest that this particular antismoking mass media campaign was effective in reaching Aboriginal smokers. The majority of the participants interviewed had seen the television advertisement and/or heard the radio advertisement(s), although there was significantly greater awareness of the former. This is consistent with past evaluations of the Cancer Council of Western Australia's antismoking campaigns, suggesting that television has a far greater reach than radio. The messages in this campaign appeared to be appropriate and acceptable for Aboriginal smokers, with the majority considering the advertising to be believable and relevant. Furthermore, the campaign appears to have encouraged Aboriginal smokers to think about cutting down and/or quitting.

The findings of this evaluation are very similar to those from a concurrent evaluation of the same campaign conducted with a sample of mainstream smokers.<sup>8</sup> As with the Aboriginal smokers in this study, mainstream smokers had high prompted awareness of the television advertisement (89%) and relatively low prompted awareness of the radio advertisement(s) (31%). In addition, most mainstream smokers found the advertisements convincing (77%) and relevant (76%), and 48% seriously considered quitting as a result of the advertising. Other evaluations of the 'Bubblewrap' campaign among mainstream smokers in Australia have yielded similar awareness and impact results.<sup>9–11</sup> Our findings are also consistent with those of studies in the Northern Territory<sup>6</sup> and Victoria<sup>7</sup> that investigated the impact of mass media antismoking campaigns on Aboriginal populations. Like this evaluation, these studies found that the majority of Aboriginal people could recall mainstream mass media antismoking campaigns. Taken together, all of these results suggest that Aboriginal and mainstream smokers respond in similar ways to mainstream antismoking media campaigns, and that mainstream campaigns can positively influence the thoughts and behaviours that Aboriginal smokers have, and exhibit, towards quitting smoking. Future large-scale evaluations of mainstream campaigns should be conducted with Aboriginal smokers to see if the findings of this study are replicated.

### What this paper adds

- ▶ Antismoking mass media campaigns have been shown to reduce smoking prevalence in the mainstream community, however there is little published research on their effect on Aboriginal Australian smokers.
- ▶ This evaluation of a mainstream mass media advertising campaign, conducted among Aboriginal smokers in Western Australia, found that the majority of participants had seen and/or heard the advertisements and considered them to be believable and relevant. The findings of this study suggest that mainstream antismoking mass media campaigns can positively influence the thoughts and behaviours that Aboriginal smokers have, and exhibit, towards quitting smoking.

This study had several limitations. The evaluation was restricted to the post campaign period, so we are unable to assess if the campaign directly led to an actual increase in quitting among Aboriginal smokers, a change in quitting intentions or a better understanding of the negative health effects of smoking. In addition, limitations in questionnaire wording meant that we could not get a measure of unprompted awareness for either form of advertising, nor could we individually assess the effectiveness of the original and new radio advertisements on the behaviours of Aboriginal smokers. This restricted what could be inferred from this study about the benefits of targeted versus mainstream antismoking advertising.

Previous research has consistently shown that stress<sup>12–14</sup> and the normalisation of tobacco smoking<sup>12 15 16</sup> are major barriers to smoking cessation among Aboriginal smokers. Little is known, however, about what motivates Aboriginal smokers to quit, or to not smoke at all (ie, to be classified a never smoker).<sup>17</sup> A better understanding of these motivations, as well as factors that can diminish campaign impact among Indigenous populations, may lead to more effective advertising campaigns. Although the results of this evaluation, as well as other studies, suggest that mainstream antismoking mass media campaigns are effective at reaching Aboriginal smokers, it is important that those developing antismoking campaigns investigate better ways to incorporate Aboriginal themes in their messages. Additionally, these results highlight the need for sufficient funding of future antismoking campaigns to ensure that advertising messages reach the large Aboriginal populations in regional and remote Australia.

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**Competing interests** None.

**Ethics approval** The research was of negligible risk and no information was collected that could personally identify any participant. The project methodology encompassed ethical and cultural considerations consistent with the Kulunga Research Network's Aboriginal research principles framework and commitment to Aboriginal capacity building. Aboriginal people were consulted and genuinely engaged at all stages of the research.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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