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## Chapter Two

# CHANGES ASSOCIATED WITH THE NATIONAL TOBACCO CAMPAIGN

## PRE AND POST CAMPAIGN SURVEYS COMPARED

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## Abstract

The first phase of the National Tobacco Campaign, aimed at smokers aged 18–40 years, promoted the message ‘Every cigarette is doing you damage’ through three television advertisements that portrayed the damage smoking inflicts upon lung tissue, blocking of arteries and genes in lung cells. This report does not include data pertaining to the later released *Brain* and *Call for help* television advertisements. The television advertising was supplemented by advertising in other media and smokers were urged to seek help to quit, principally by contacting the Quitline. Other methods to assist smokers to quit were available through contact with healthcare providers. The campaign was launched on 7 June 1997 with an intensive period of media advertising, followed by a period of advertising for every other week.

A benchmark (May 1997) and follow-up (November 1997) evaluation survey of smokers and recent quitters (quit in the past year) aged 18–40 years were undertaken to provide a measure of campaign outcome. Salient findings were:

- increase in spontaneous recall of anti-tobacco advertising from 25% to 46%;
- recognition of campaign advertising by over 80% of smokers and recent quitters in the follow-up survey;
- an increase in new learning about smoking and health in the past six months from 14% to 23%, with most new learning related to specific campaign advertising content;
- increases in awareness that every cigarette is doing damage (75% to 82%), and the effects of smoking on blocking arteries (54% to 83%) and on the genes in lung cells (67% to 78%);
- increases in intention to quit, with fewer people in precontemplation at follow-up (43%) than at benchmark (48%);
- increases in a range of intention to quit and quit attempt measures, as reflected in a higher Quindex score at follow-up (3.95), compared with benchmark (3.62);
- increases in getting help to quit smoking, especially use of the Quitline (2% to 4%) and nicotine replacement therapy (7% to 10%);
- increase in one year quit rate from 8% to 11% among smokers and recent quitters;

- a statistically significant reduction of about 1.5% in the estimated adult prevalence of smoking.

Taken together, the results of these surveys provide convincing and consistent evidence that the National Tobacco Campaign has influenced smokers in the manner intended. The messages the campaign advertising sought to convey were remembered and taken on board as new learning by smokers to the extent that attitudes to smoking changed and beliefs and awareness about specific disease processes and the damaging effects of cigarettes ('Every cigarette is doing you damage') increased from benchmark to follow-up surveys. This increase occurred in the absence of any systematic increase in general beliefs about smoking and illness or in beliefs which were not the subject of campaign advertising.

Over this same period, consistent with a positive campaign influence, there were increases in intention to quit and quit attempts, and an increase in one-year quit rates. Overall, these effects applied to males and females, older and younger participants and smokers and recent quitters at all levels of educational attainment and occupational status. Where relative differences in change were observed, these mainly served to minimise the differences between subgroups, which had previously existed at benchmark. A similar pattern of findings was observed for each state.

It is clear that apart from promoting quitting activity among current smokers, the campaign has played a role in preventing relapse. Recent quitters reported that the campaign advertising made them more likely to stay quit, and the increase in one-year quit rates associated with the campaign demonstrates an increase in likelihood of maintaining cessation over the longer term.

The data available from the evaluation surveys on smoking prevalence for the informant subsample and the enumerated household sample strongly suggest a reduction in prevalence. Given that any reported price increase for cigarettes was minimised by smokers through varying their purchasing patterns during the survey period, price variation is unlikely to explain such a prevalence decline.

The final judgement as to whether the campaign has influenced smoking prevalence will need to be made in the light of state-based and national prevalence series, where the use of standard questions and underlying trends in prevalence leading up to the campaign launch can be interpreted. However, our best estimate at this point is that reduction in prevalence associated with the campaign is very likely.

## Introduction

Evaluating a campaign such as this is a complex task. Because the whole population was exposed to the campaign, there are immediate difficulties in relating any change in smoking prevalence, or lack of it, to the effect of the campaign. If a decline was observed, reductions in prevalence may have occurred even in the absence of the campaign, or if there was no change, it may mean that the campaign corrected an upward trend which would have prevailed had the campaign not been run. Two main questions arise in assessing change in prevalence: (a) is the change observed in the sample a real, statistically reliable change? and (b) if a real change in prevalence has occurred, what is/are the most likely cause(s)? We already know that nothing (except perhaps a shutdown of supply) can change the prevalence of smoking greatly or quickly. So, effects of a media campaign on prevalence in the short term will be small and difficult to detect. Thus, we may have to wait two or three years before trends in the annual data can be clearly determined.

In the meantime, there are more proximal early indicators of whether the campaign is working in the manner intended. In order to assess whether we have a campaign likely to influence smoking prevalence, a number of conditions need to be met. First, smokers need to have seen the campaign and remember it. Second, they must appraise the information presented in the campaign as believable and personally relevant and it must make them think about quitting. These variables are amenable to direct measurement, because we are able to ask smokers about their specific thoughts and behaviours in relation to the television commercials, the campaign slogan and the overall campaign.

In addition to this, if we are to expect a change in smoking prevalence, we must look for evidence that there have been changes in quitting activity, intentions to quit and in health beliefs and attitudes. These variables are not able to be directly linked to the campaign as there will be other factors which influence change in these parameters, so that we must impute their relationship with campaign exposure. The evaluation was designed to help make attributions as to whether the campaign may be linked to changes in these variables.

The main tool for monitoring campaign outcomes were two large evaluation surveys, the results of which form the subject of this report. These surveys assessed a range of impact and outcome variables.

Supplementary outcome measures will be smoking prevalence surveys of representative samples of Australians, such as those conducted by the Anti-Cancer Council of Victoria, and state-based surveys, such as the South Australian Health Omnibus Survey. In addition, the evaluation could include an analysis of consumption of tobacco per capita. These data are collected by the Commonwealth Department of Customs and Excise and should reflect changes in smoking prevalence or declines in the consumption per smoker, or both. However, there exists doubt about the accuracy of reported measures of consumption due to factors unrelated to consumer demand, ie excise and customs evasion, coding changes and partial data availability, warehouse stock movements and the weight based method of tobacco taxation. Therefore amount sold may decrease due to a shift to lighter cigarettes rather than a decrease in the number of cigarettes smoked and thus may preclude use of these data, at least until this matter has been further explored.

Given the problem of power referred to earlier, it will be important to relate prevalence data here to other prevalence series. This may provide clear evidence of change or non-change earlier than would be likely from a single set of surveys.

## Method

The evaluation surveys were commissioned by the Commonwealth Department of Health & Family Services and were conducted by the Roy Morgan Research Centre. The benchmark survey was conducted in May 1997 and the follow-up survey was conducted in November 1997. Given the six months break between surveys, the possible role of theoretical seasonal effects requires consideration in future surveys. It should be noted that data collected in the benchmark survey may have been affected by the recent impact of World No Tobacco Day publicity and programs around 31 May 1997. This helps explain some of the pre-campaign 'effects' reported below.

### **SAMPLING METHOD AND SAMPLE SIZE**

Each of the surveys was conducted by telephone and used the electronic white pages as the sampling frame. The sample was selected from each of six states Australian Capital Territory (ACT) was included with New South Wales (NSW); and Northern

Territory (NT) was included with South Australia (SA) using a quota sampling method which aimed to generate 75% of the sample as smokers (those who smoke on a weekly basis) or recent quitters (defined as those who have, over the past year, stopped smoking cigarettes on a weekly basis), and the remainder being other ex-smokers and non-smokers.

Once the interviewer made contact with a person in the household aged 18 years or older (the informant), that person was asked unprompted questions about recall of health advertising. Following these questions, the interviewer asked the informant to describe the number of persons residing at the household, and for each, their age, sex, and whether they were a smoker or recent quitter. Only those aged 18–40 years were eligible to progress as participants to the complete interview. One non-smoker per household could be selected on a quota basis to participate in a shortened interview. Up to two smokers or recent quitters and one non-smoker per household could be interviewed, and where there were more household members fitting this description, a random procedure was employed to select them. Where these eligible potential participants were not at home when the interviewer first called, call-backs were made in an attempt to interview the selected person. Potential participants were aware the interview was about health, but not tobacco in particular, when they commenced the interview.

A sample size of 3,000 completed surveys of respondents was aimed for at benchmark and follow-up. Due to the late commencement of the benchmark survey, quota numbers were not reached before the launch of the campaign. To compensate for this and preserve statistical power as much as possible, additional interviews were sought in the follow-up survey. Data from both surveys were weighted separately by state to reflect the population of Australian smokers, recent quitters and non-smokers aged 18–40 years.

Table 2.1 shows that at benchmark 6,632 informants aged 18 years or older answered the telephone and provided information about themselves and those who lived in their household, and 17,572 did so at follow-up. These informants told us that a total of 13,807 adults were resident in the households which were telephoned at benchmark, and 36,538 at follow-up. Those who went on to participate in an interview (survey respondents), irrespective of smoking status, numbered 1,979 at benchmark and 4,197 at follow-up. In total, full interviews with the main survey target group of smokers and recent quitters numbered 1,192 at benchmark and 2,981 at follow-up.

TABLE 2.1 SAMPLE SIZE OF BENCHMARK AND FOLLOW-UP SURVEYS

Number of people sampled	Benchmark	Follow-up
Informants aged 18+ years	6,632	17,572
Total household enumeration aged 18+ years	13,807	36,538
Survey respondents 18-40 years	1,979	4,197
Non-smoker respondents	787	1,216
Survey participants (smokers and recent quitters)	1,192	2,981

### QUESTIONNAIRE ADMINISTRATION

The enumeration survey identified the smoking status of all adults in the household and determined subject selection. The telephone questionnaire asked in an unprompted fashion about awareness of advertising about health. This was asked of all informants and also of new respondents. Participants were also asked whether there were illnesses or damage caused by smoking, and if so, to describe what these were. All participants were then asked about their cigarette smoking to confirm categorisation of participants into smokers, recent quitters and others. Smokers were asked about their feelings about being a smoker, intentions to quit, and attempts to refrain from smoking or quit completely. In addition, all participants were asked about their likelihood of smoking a year from now, and smokers and recent quitters were asked about their perceptions of personal harm from their smoking. All participants were asked about images that came to mind when smoking or seeing others smoke, and recent learning about smoking and health. A section of the questionnaire then queried smokers and recent quitters about their perceptions of likelihood of quitting and remaining quit. All participants were asked about agreement or disagreement with a range of opinion statements relating to smoking and health. In the follow-up survey, campaign advertising was then described to all participants, and for those who recognised the campaign advertising, they were asked for their appraisal of it and where it had been seen, read or heard. Finally, smokers were asked about level of tobacco consumption, the brand they smoked, where the last pack had been purchased and how much it had cost. Demographic information obtained for each household

member included age and sex, but, for those smokers and recent quitters who progressed to a full interview, additional information was collected, including level of educational attainment, language spoken at home, employment status, and respondent's and main income earner's occupational status.

The questionnaires were designed so that answers to unprompted questions would not be biased by preceding questions. Rotation of some questions and response options within questions was used to minimise order effects. More specific information about question wording is included in the results section. Complete benchmark and follow-up questionnaires are contained in Appendix 2A.

## **STATISTICAL METHODS AND PRESENTATION OF RESULTS**

Comparisons between proportions were undertaken using conventional chi-square tests, and between means using t-tests. Subgroup differences of interest, given their established relationship to smoking behaviour, were sex, age group (18–29 years; 30–40 years) and highest level of educational attainment (completed tertiary; some tertiary; completed secondary; some secondary). It should be pointed out that in population surveys involving the whole adult population, educational attainment provides little helpful discriminatory value by itself because it is highly correlated with age, as older people traditionally have lower levels of educational attainment than younger people. However, in the present survey, since survey participants were only aged between 18–40 years, this concern did not apply, and comparisons could be made without age adjustment between educational attainment subgroups. Relative change in subgroup differences in proportions were analysed using logistic regression analyses, testing for interaction terms. Differences in change in means between subgroups were analysed using analysis of variance, testing for interaction effects.

In the text, we only make reference to differences between surveys where the effects were statistically significant ( $p < .05$ ). With the exception of the prevalence data, all of the inferential testing in this report was conducted on weighted data (which adjusts for state, but maintains the total sample size at the same level as if unweighted). It is acknowledged that there are sophisticated statistical programs, such as SUDAAN, which are specifically designed for inferential testing with weighted data. As this level of statistical analysis was not undertaken here, we have

commented only upon differences that were of noteworthy magnitude as well as reaching 95% confidence level on weighted data.

In contrast, because of its critical importance in the evaluation, prevalence data require a high degree of precision and confidence in inferences drawn. Therefore a more precise and conservative approach was taken, as follows. For comparisons using the household sample (estimates of smoking prevalence), because of clustering of individuals within households, standard errors on estimates were increased by an additional 20% (Australian Bureau of Statistics, personal communication), thus erring on the side of conservatism when examining differences between proportions. Confidence intervals were used to impute statistical significance.

For the main section on presentation of results, data are presented from the subsample of smokers and recent quitters from the respondent survey. The composition of the benchmark and follow-up samples were equivalent with respect to sex, age group, language spoken at home, employment status, and occupational status of respondent and main income earner within the household. However, there were fewer survey participants who had completed only some secondary school at follow-up (35.3%) than at benchmark (41.3%), and more who had completed all secondary education (30.0% at follow-up and 23.7% at benchmark).

For the section on smoking prevalence, data from the informant samples, and enumerated household samples are used. Comparison of smoking prevalence was undertaken using logistic regression analysis, which adjusted for differences in the sex and age group composition of the samples. It is important to note that the estimates of smoking prevalence using the enumerated household sample will provide a more valid indicator of adult population prevalence than the informant sample. This is because the informant sample is a more opportunistic sample of people who answer the telephone, and they tend to be more likely to be female and of older age.

This report presents data at the national level, as resources prohibited drawing a sample size large enough to make reliable attributions about change within states. However, for a set of main indicator variables where the denominator involved all smokers and recent quitters, we did examine state variation. Overall, there were no significant or systematic differences by state, so that the findings reported may be considered to apply equally across states. For interest, however, state data for main indicator variables are contained in Appendix 2B.

## Results

### RECALL AND RECOGNITION: WAS THE CAMPAIGN SEEN AND REMEMBERED BY SMOKERS?

Unprompted recall of the campaign measures advertising salience and is a function of media weight and the ability of the creative execution to be linked to the category cue in memory, that is, its noticeability or attention-getting power.

Unprompted recall of advertising about tobacco was assessed in both the benchmark and follow-up evaluation surveys. Participants were asked “During the past three months, have you seen or heard any advertising campaign on TV, radio, in the newspaper or anywhere else encouraging people to do things to improve their health?” If participants said they had, they were then asked “What was the advertising campaign(s) about?”. If smoking issues were spontaneously mentioned, interviewers asked them to describe exactly what they recalled.

TABLE 2.2 UNPROMPTED RECALL OF HEALTH ADVERTISING ABOUT TOBACCO

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Seen any health advertising in the past 3 months [entire sample]	74%	82%
Unprompted recall of anti-tobacco advertising (of those who saw health advertising) [entire sample]	34% (n=885) [25%]	57% (n=2,433) [46%]

Table 2.2 shows that significantly more smokers in the follow-up survey recalled seeing any health advertising (82%), compared with 74% in the benchmark survey. Of those who recalled health advertising, significantly more participants at follow-up (57%) mentioned advertising about tobacco in an unprompted fashion, than in the benchmark survey (34%). As a percentage of the entire sample, this means there was an increase from 25% to 46% of participants who spontaneously recalled health advertising about tobacco. Unprompted recall of health advertising and advertising about tobacco in

particular, increased equally for males and females, for both younger and older participants, and for all levels of educational attainment.

Prompted recognition of the advertising is a measure of whether or not the respondent has been exposed to the advertising, and represents a diagnostic check on the proposed media schedule. Prompted recognition of campaign advertising was assessed for smokers and recent quitters in the follow-up survey. Interviewers read to participants a standard description of the campaign advertising which included the campaign slogan 'Every cigarette is doing you damage' and they were asked whether they had seen, read or heard any advertising from this campaign. The same questioning procedure was also administered in the benchmark survey, despite the campaign advertising having not been launched, and this served as a comparison for purposes of assessing misreporting.

TABLE 2.3 RECOGNITION OF NATIONAL TOBACCO CAMPAIGN ADVERTISING

<b>Smokers &amp; recent quitters (within the last year)</b>	<b>Follow-up (n=2,981)</b>
Prompted recognition of campaign advertising (% yes) [entire sample]	87%
Prompted recognition of where NTC advertising seen: (% yes) [of those who saw NTC advertising]	(n=2,602)
Television	95%
Radio	17%
Newspaper	15%
Sides of buses	13%
TV in doctor's waiting room	10%
Shopping centre signs	6%
Billboard	3%
Magazine	1%
Poster in doctor's waiting room	0%

Table 2.3 shows that overall, 87% reported recognising the campaign advertising at follow-up. In the benchmark survey, 22% of participants said that they had recognised the campaign advertising as it was described to them, suggesting that some participants were mistaken. For this reason, it is probable that some participants in the follow-up survey had not actually seen the campaign advertising, so that some of the 87% recognition should be discounted. Among

those who recognised the campaign advertising, this was most often attributed to the television component, consistent with the media buy. However, other advertising sources reported by 10% or more of participants included radio, newspaper, sides of buses and the TV in a doctor's waiting room.

The campaign was recognised almost equally well by males and females, older and younger participants, and by participants in all categories of educational attainment.

Taken together, data from the surveys are consistent in suggesting that the campaign was seen by the majority of smokers in the target group. Measures of unprompted recall of the campaign in general suggest that the advertising was highly salient. Furthermore, the campaign advertising was equally well recalled and recognised by all socio-demographic subgroups.

#### **APPRAISAL OF CAMPAIGN ADVERTISING: DID THE CAMPAIGN MAKE SMOKERS THINK ABOUT QUITTING?**

Smokers who recognised the campaign advertising, were asked "Thinking about this anti-smoking campaign as a whole, do you think it has made you more or less likely to quit smoking or made no difference?". Recent quitters were asked whether the campaign advertising had helped them to stay quit, made it more difficult to stay quit or had no effect.

Table 2.4 shows that among smokers who reported having seen the campaign advertising, 51% of smokers in the follow-up survey indicated the advertising had made it more likely that they would quit smoking, 45% thought it made no difference, 2% thought it made them less likely to quit and 2% could not say. The percentage of smokers who thought the advertising made them more likely to quit increased significantly from the benchmark survey, where 37% of those who reported having seen anti-smoking advertising responded in this way. Among recent quitters at follow-up, 60% thought the advertising made them more likely to stay quit, 34% thought it made no difference, 2% thought it was made more difficult and 4% could not say. Significantly more recent quitters at follow-up thought the advertising made them more likely to stay quit (60%), compared with 23% in the benchmark survey.

TABLE 2.4 CAMPAIGN-ATTRIBUTED ENCOURAGEMENT TO QUIT OR STAY QUIT

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Smokers: Whether anti-smoking advertising made them more or less likely to quit? [of those who reported seeing advertising]	[n=244]	[n=2,349]
More likely	37%	51%
No difference	59%	45%
Less likely	3%	2%
Can't say	1%	2%
Quitters: Whether anti-smoking advertising made them more or less likely to stay quit? [of those who reported seeing advertising]	[n=19]	[n=289]
Helped to stay quit	23%	60%
Had no effect	71%	34%
Made it more difficult	3%	2%
Can't say	3%	4%

All participant socio-demographic subgroups evidenced similar increases in belief that the campaign advertising made them more likely to quit (or to stay quit, in the case of recent quitters), compared with the anti-smoking advertising seen at benchmark.

These data suggest that the campaign advertising was more likely to be appraised by smokers as making them more likely to quit than anti-smoking advertising that they recalled before the campaign was launched. The campaign advertising was also appraised by recent quitters as making them more likely to stay quit, compared with anti-smoking advertising they had seen before the campaign. These effects were observed across all participant subgroups.

#### **CHANGE IN HEALTH BELIEFS AND ATTITUDES: IS THERE AN ASSOCIATION WITH CAMPAIGN EXPOSURE?**

At the beginning of the section of the questionnaire on health beliefs and attitudes, participants were asked “In your opinion, are there any illnesses caused by smoking?”. Those participants who answered in the affirmative were asked to indicate which illnesses were so caused, and the interviewer noted the first mention, and then prompted the respondent for other illnesses that were thought to be

caused by smoking. Using the same question method, participants in each survey were further asked in an unprompted fashion about whether they thought there were any forms of damage to the body caused by smoking. These two questions were rotated in the questionnaire to minimise order effects.

Table 2.5 shows little change between the benchmark and follow-up surveys in belief about whether illnesses or damage are caused by smoking. This applied equally across participant socio-demographic subgroups. Participants in the follow-up survey increasingly mentioned specific illness or damage processes pertaining to arterial damage, but there was no systematic change in other conditions which were the subject of the campaign advertising. Increase in beliefs about arterial illness or damage applied equally for males and females and older and younger participants, and all levels of educational attainment except those who had completed tertiary education (which decreased).

TABLE 2.5 UNPROMPTED AWARENESS OF ILLNESS AND DAMAGE CAUSED BY SMOKING

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Believe there are illnesses or damage caused by smoking [entire sample]	95%	93%
Specific illnesses mentioned: [entire sample]		
Blocked blood arteries	9%	13%
Blocked blood vessels	3%	6%
Circulatory disease	4%	7%
Circulatory problems	8%	11%
Blood pressure	6%	6%
<i>Any artery illness/damage</i>	26%	32%
Emphysema	37%	34%
Lung damage	13%	13%
Lung cancer	64%	62%
<i>Any lung illness/damage</i>	80%	79%
Genetic/DNA damage	1%	2%
Heart disease	37%	30%
Cancer (unspecified)	34%	34%
Throat cancer	16%	17%

One of the communication objectives for the campaign was to condition an association between the images in the advertisements and the act of smoking, so we therefore sought to determine whether advertisement-specific images occurred more frequently at follow-up, and whether these specific images are thought about when smoking. Participants were asked “When you think about the health damage smoking causes to the body, what images or mental pictures come to mind?”. They were then prompted to describe any images that came to mind. When no further images were mentioned, smokers were asked “Do you ever think of images like the ones you’ve just described when you smoke a cigarette?” and recent quitters were asked “Do you ever think of images like the ones you’ve just described when you see someone smoking?”.

TABLE 2.6 IMAGES ASSOCIATED WITH SMOKING

<b>Smokers &amp; recent quitters (within the last year)</b>	<b>Benchmark (n=1,192)</b>	<b>Follow-up (n=2,981)</b>
Able to nominate health damage images [entire sample]	77%	72%
Think about images when smoking [of those current smokers who nominated images]	34%	41%
Think about images when see someone else smoking [of those recent quitters who nominated images]	51%	46%
Advertisement-specific images mentioned [of those who nominated images]		
Cancer/dying from cancer	13%	8%
Damaged lungs	34%	28%
Hollowed lungs/decaying lungs	1%	4%
Lung disease	2%	1%
Emphysema	6%	4%
Circulation problems	<1%	5%
Heart disease	1%	1%
Lungs filled with smoke	1%	2%

Table 2.6 shows that overall, there was a decrease in the extent to which smokers and recent quitters were able to bring to mind images about the health damage associated with smoking. However, among those who were able to nominate images, there was an increase in bringing such images to mind during

the process of smoking a cigarette at follow-up, compared with benchmark. Table 2.6 also shows that this pattern did not apply to instances where someone else was seen smoking a cigarette, with no change over time.

Among those who mentioned images, there was an increase at follow-up in likelihood of mentioning hollowed/decaying lungs or circulation problems – those processes leading to disease – but decreases or no change in other images that represented patent disease. This provides some evidence that campaign images are more dominant at follow-up among those who bring images to mind, but suggests that there has been no overall increase in who brings images to mind. This is consistent with studies of memory recall, which suggest that there are individual differences in the extent to which people use visual imagery to aid recall (Divesta & Sunshine, 1974; Baltes & Kliegl, 1987).

TABLE 2.7 NEW LEARNING ABOUT SMOKING AND HEALTH IN THE PAST SIX MONTHS

<b>Smokers &amp; recent quitters (within the last year)</b>	<b>Benchmark (n=1,192)</b>	<b>Follow-up (n=2,981)</b>
Learned anything new about the effects of smoking cigarettes on health in last six months: [entire sample]	14%	23%
What learnt: (of those who learnt something new) [entire sample]	(n=166) [n=1,192]	(n=670) [n=2,981]
Clogged arteries	7% [1%]	36% [8%]
Lungs are like sponges	7% [1%]	20% [4%]
Every cigarette is doing damage	5% [1%]	17% [4%]
How smoking causes lung cancer	11% [2%]	11% [3%]

Participants were further asked “During the past 6 months, have you learned anything new about the effects of smoking cigarettes on health?” and if so, to describe what they learnt. Table 2.7 shows that there was a significant increase in the percentage of participants who thought they had learned something new, from 14% in the benchmark survey to 23% in the follow-up survey. Among those who had learned something new, the subject matter was significantly more likely to relate to the campaign advertising content at follow-up than at

benchmark, in relation to spontaneous mentions of ‘clogged arteries’, ‘lungs are like sponges’, and ‘Every cigarette is doing you damage’. There was an increase in new learning about smoking and health among males and females, older and younger participants, and for all levels of educational attainment, although there were relatively larger increases for the two levels of lowest educational attainment, than the two highest, such that the groups became more similar.

Table 2.8 shows that, when asked specifically about whether smoking causes particular illnesses, or whether the respondent’s health would be improved if they quit, there was no change over time for a set of statements drawn from the current pack warnings (lung cancer, heart disease, emphysema and passive smoking). However, this may be partly because there was a high level of agreement at the benchmark survey for all of these statements, leaving reduced potential for change. Table 2.8 also shows that at follow-up, more participants disagreed that the dangers of smoking had been exaggerated, and more disagreed that the occasional cigarette does not cause damage to health. This pattern of response suggests consistent change in beliefs which are most closely tied to the campaign advertising, against a background of no change in beliefs about smoking and health which were not related to such advertising.

TABLE 2.8 LEVEL OF AGREEMENT WITH OPINION STATEMENTS ABOUT SMOKING AND HEALTH

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Agree/disagree with opinion statements: [entire sample]		
Smoking causes lung cancer (% agree)	88%	87%
Smoking causes heart disease (% agree)	83%	84%
Your smoking can harm others (% agree)	82%	83%
Smoking causes emphysema (% agree)	86%	86%
It would improve my health if I quit smoking (% agree)	93%	93%
The dangers of smoking have been exaggerated (% disagree)	59%	64%
Smoking can’t be all that bad because many people smoke all their lives and live to a ripe old age (% disagree)	59%	61%
Smoking the occasional cigarette doesn’t cause any damage to your health (% disagree)	50%	57%

Agreement with illness statements drawn from the current pack warnings did not change systematically in any of the population subgroups. For the opinion statements where change was evident overall, we examined subgroup differences. Overall, more participants disagreed at follow-up that the dangers of smoking have been exaggerated, and this increase was relatively greater for females than males, and for those who had completed tertiary education than those who had completed some secondary education only. There was an increase by all age group and sex subgroups in the percentage who disagreed in the follow-up survey that smoking the occasional cigarette does not cause damage to health. However, there was relatively more increase in the highest educational attainment category than the lowest, such that by the time of follow-up, all educational attainment subgroups were similar.

In Table 2.9, it can be seen that there was an increase in the percentage of smokers who agreed that 'Every cigarette is doing you damage'. There were also increases in the percentage who thought that smoking blocks up arteries with fatty deposits and causes damage to the genes in lung cells. However, there was no change in agreement that smoking makes the body age faster, or that smoking causes decay in the lungs, although, with respect to the latter measure, potential for change was limited by the fact that 93% of participants were already of this view in the benchmark survey.

TABLE 2.9 CAMPAIGN-RELATED BELIEFS

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Which is nearest to the truth? "Every cigarette is doing you damage" vs "You have to smoke for several years": (% Every cigarette is doing you damage)	75%	82%
Smoking makes the body age faster (% true)	71%	71%
Smoking causes decay in the lungs (% true)	93%	95%
Smoking blocks up arteries with fatty deposits (% true)	54%	83%
Smoking causes damage to the genes in lung cells (% true)	67%	78%

For those statements where there was an overall increase in percentage agreement with attitude statements, increases applied to males and females, younger and older participants and across all levels of educational attainment. However, for educational attainment subgroups, there was differential increase, such that at follow-up, subgroups were more similar, than at benchmark. In addition, for the statements relating to 'blockage of arteries' and 'damage to the genes in lung cells', the increases for younger participants were greater than for older participants.

Overall, the pattern of responses in Tables 2.5 to 2.9 suggests success in communicating campaign messages. The campaign did not set out to convince people that smoking causes cancer, heart disease or emphysema per se, but to provide a concrete understanding of the mechanisms involved in disease processes. The outstanding new learning was about atherosclerosis, but 'spongy lungs' and the 'damage done by every cigarette' were also specific messages and demonstrated new learning (refer Table 2.7). Also supporting the specificity of campaign communication is that items tapping into beliefs that campaign messages did not try to influence, such as ageing and passive smoking, did not change. Particularly significant were results for the question included as a check on the counter-productive effects of a hard-hitting campaign which might have, but did not, increase the number of people believing the dangers of smoking are exaggerated. Indeed, the trend was for increasing disagreement.

Questions were asked of participants to assess the extent to which they personalised the harm that smoking may cause them. Smokers were asked "What do you think is the likelihood of becoming ill from your smoking if you continued to smoke?". Smokers and recent quitters were asked "Has smoking already done any harm to your body?" with responses ranging from 'definitely has' through to 'definitely has not'. Finally smokers were asked "Do you feel good or bad about being a smoker or do you have mixed feelings?".

Table 2.10 shows that among the belief and attitude statements relating to smokers themselves, there was an increase in belief that smoking had probably already done harm to their body, that they were likely to become ill from smoking in the future, and felt bad about being a smoker. Such beliefs and feelings are more likely than not to drive change towards quitting and these differences associated with the campaign reflect success in achieving campaign communication objectives.

TABLE 2.10 PERSONAL STATEMENTS ABOUT SMOKING

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Likelihood of becoming ill from smoking: [smokers only] (% likely)	45%	52%
Has smoking already done any harm to your body? [entire sample] (% probably has)	51%	57%
Feelings about being a smoker: [smokers only] (% feel bad)	29%	32%

For each of the personal statements about smoking, increases in belief applied equally for socio-demographic subgroups, with the exception of acknowledgment of harm already done to the body, where increases for females were greater than for males, so that at follow-up, a pre-existing difference in belief between males and females was eliminated.

In summary, given the difficulty of changing beliefs and attitudes, these findings demonstrate considerable change in beliefs and attitudes that relate to specific campaign messages. This is all the more significant, given no overall increase in beliefs about the effects of smoking on health, or evidence of change in beliefs that do not relate to campaign messages. This increases confidence that the campaign has been responsible for the specific observed increases. That these messages have been accepted as being personally relevant to smokers, is reflected in the increase in acknowledgment of personal vulnerability and past damage. Furthermore, since this pattern of findings applied to all population subgroups, it suggests that the campaign messages were widely accepted.

#### **CHANGE IN QUITTING INTENTIONS AND ACTIVITY: IS THERE AN ASSOCIATION WITH CAMPAIGN EXPOSURE?**

This section examines change in intention to quit smoking, quit attempts, reported quit rates, getting help to quit, social pressure to quit, and smoking prevalence.

Both conceptual and empirical evidence suggests that changes in intention to quit are amongst likely precursors to increased smoking cessation (Fishbein & Ajzen, 1975; Prochaska et al, 1992; Henrikus et al, 1995). Such measures may thus be used as early indicators of possible longer term campaign effects on smoking prevalence.

The surveys employed three measures of quitting intention, each measuring different time periods. Stage of change for smokers was assessed by response to two questions. First, all smokers were asked “Are you seriously planning to quit smoking cigarettes in the next six months?”, with smokers who responded negatively being designated as being in precontemplation. Those who responded affirmatively were further asked “Are you planning to quit smoking cigarettes in the next 30 days?”. Smokers who were planning to quit in the next six months, but not within 30 days, were designated as contemplators and those planning a quit attempt within 30 days were designated as being in preparation. Table 2.11 shows there was a greater percentage of smokers in preparation and contemplation at the follow-up survey, and a smaller percentage of smokers in precontemplation, than at benchmark. This 2% difference from 16%–18% represents an approximate 10% increase in the proportion of smokers who are ready to quit at the time of the follow-up survey compared to benchmark. In population terms, this is a large effect.

TABLE 2.11 INTENTION TO QUIT

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Stage of change [smokers only]		
Precontemplation	48%	43%
Contemplation	36%	39%
Preparation	16%	18%
Smoking a year from now [entire sample]		
Will be	35%	33%
Might or might not	29%	26%
Will not be	36%	41%
Thought about quitting [all smokers]		
At least once a day	28%	32%

All smokers and recent quitters were asked “A year from now, how likely is it you will be smoking?” with responses ranging from ‘definitely will be’ to ‘definitely will not be’. This measure of intention to smoke is based on Ajzen & Fishbein’s (1980) theories of intent as a reliable predictor of future behaviour. At follow-up, significantly fewer smokers thought they would be smoking a year from now or were unsure, and more thought they would not be smoking (see Table 2.11).

Smokers were also asked “During the last two weeks, how often have you thought about quitting smoking?” with response options ranging from ‘several times a day’ to ‘not at all’. Significantly more smokers at follow-up thought about quitting at least once a day, compared with at benchmark. This finding is consistent with the campaign creative strategy which sought to condition an association between the act of smoking and thoughts of the damage every cigarette does.

Measures of quit attempt activity involved questions about whether smokers and recent quitters had ever tried to quit and, if so, how recently. At follow-up, significantly more participants had ever tried to quit, had tried in the past month and had tried in the past two weeks, compared with the benchmark survey (Table 2.12). A measure of refraining from smoking when there was an urge to do so was also included. There was no change in the percentage of participants who had resisted an urge to smoke in the past two weeks.

TABLE 2.12 QUITTING ACTIVITY

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Ever tried to quit smoking [entire sample]	76%	78%
Tried to quit in the last month [entire sample]	7%	10%
Tried to quit in last 2 weeks [entire sample]	4%	6%
Resisted an urge to smoke in past 2 weeks [entire sample]	57%	57%

Whilst the data suggest in a consistent manner that there was an increase in quitting intentions and quit attempt activity associated with the follow-up survey,

a measure of point prevalence cessation is reflected in the percentage of recent quitters in the benchmark and follow-up sample. Since the sample selection procedure did not differ between benchmark and follow-up in terms of differential selection of smokers and recent quitters, the proportion of recent quitters out of all smokers and recent quitters can be compared between surveys as another indicator of likely change in smoking prevalence.

Although the reference time periods overlap, a one-year time frame eliminates any independent effects of season on quitting activity, so that a greater quitting rate associated with the follow-up survey would be consistent with the campaign being associated with this increase. This is a more stable measure of quitting activity, since for each of the measures of quitting intentions and attempts reported previously, it remains a possibility that seasonal variation in these parameters may explain the pattern of findings. Table 2.13 shows that the one-year quit rate is significantly increased for respondents in the follow-up survey. Should such quitting activity be maintained, these findings provide further reason to expect that an eventual reduction in population smoking prevalence may result.

TABLE 2.13 QUIT RATES

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Quit in the last year [entire sample]	8%	11%

In order to summarise change in quitting intention and activity and examine subgroup differences, we developed a quitting activity index called Quindex. It had the advantage of being able to combine data from recent ex-smokers as well as smokers, and as such gives an indication of total impact. Quindex is a summary measure of quitting activity, derived from a range of questions relating to smoking prevalence, intention to be a smoker a year from now, intention to quit in the next six months, in the next 30 days, whether a quit date has been set in the next ten days, whether a quit attempt was made in the last fortnight, and how long ago ex-smokers quit (Appendix 2C). Scores can range from 0 to 13, with a higher score indicating more quitting activity. Table 2.14 shows that overall there was a higher quitting index at follow-up, than at benchmark.

TABLE 2.14 QUINDEX SCORES

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Mean Quindex (sd) [entire sample]	3.62 (2.6)	3.95 (2.8)

For this summary measure of quitting intention and activity, we examined differences in scores over time by subgroup. There were similar increases in Quindex scores for males and females, but a greater increase for younger (those under 30 years old) than older respondents. Increases applied equally across levels of educational attainment, with the exception of the subgroup who had completed tertiary education, where there was no evidence of change.

## GETTING HELP TO QUIT

TABLE 2.15 HELP TO QUIT IN THE PAST SIX MONTHS

Smokers & recent quitters (within the last year)	Benchmark (n=1,192)	Follow-up (n=2,981)
Done anything to get help to quit in past 6 months [entire sample]		
Discussed smoking and health at home	36%	36%
Rung the Quitline	2%	4%
Asked doctor for help to quit	9%	10%
Used nicotine gum or patches	7%	10%
Bought another product to help you to quit	4%	4%
Read 'How to Quit' literature	16%	16%
Done anything else to quit	27%	27%
None of the above	50%	47%

Most people who attempt to quit smoking do so on their own, without recourse to formal sources of help or support (Owen & Davies, 1990; Baille, Mattick & Hall, 1994). However, some smokers will make use of services if they are available. Table 2.15 shows that getting help to quit was more likely in the six month period prior to the follow-up survey than in the period prior to the benchmark survey, mostly accounted for by increases in ringing the Quitline and

using nicotine replacement therapy. Given that these quitting methods were made more available during the campaign period than the period beforehand, this is consistent with the suggestion that smokers made relatively more use of these specific services.

Social support for quitting is an important determinant of cessation (Mermelstein et al, 1983; Coppotelli & Orleans, 1985). Whilst the presence of other household smokers and encouragement by household members to quit is unrelated to the likelihood of making a quit attempt, it is a strong predictor of achieving cessation (Borland et al, 1991). The main measure of social support was a direct question. Respondents were asked “During the past six months, has anybody at your house been trying to get you to quit smoking?” and if so, they were asked “What is that person’s relationship to you?” Table 2.16 shows that overall, smokers reported that there was little change in household members trying to get them to quit. There was also little change in who was mentioned as encouraging them to quit. This is consistent with the information in the previous table regarding no change in the percentage of smokers who said that they had discussed smoking and health at home.

TABLE 2.16 HOUSEHOLD INFLUENCE TO QUIT

Smokers	Benchmark (n=1,094)	Follow-up (n=2,642)
Anyone at home trying to get you to quit in past 6 months [entire sample]	49%	48%
Parent	14%	13%
Child	15%	17%
Sibling	2%	2%
Partner/spouse	21%	21%
Friend/flatmate	4%	3%
Other	1%	1%

## SMOKING PREVALENCE

Two ‘indicator’ measures of smoking prevalence were available from the benchmark and follow-up surveys. First, data were available from the enumeration component of each survey. In this part of the survey, an informant aged 18 years or older was asked their smoking status, and the smoking status,

sex and age group of every adult member of the household. The informant was also asked what the household's main income earner's occupation was, and this information was used to code their socioeconomic status (SES).

TABLE 2.17 SMOKING PREVALENCE

	Enumerated household sample			Informant sample		
	%	OR	95%CI*	%	OR	95%CI*
Benchmark	23.5	1.0		23.7	1.0	
Follow-up	22.1	.96	.94-.99	22.0	.95	.92-.99
	p>.003			p>.007		

\* Adjusted for sex and age. Standard errors were increased by 20% for the 95%CI

Of the 6,632 households enumerated at benchmark, there were 13,807 occupants, and of the 17,572 households at follow-up there were 36,538 occupants who were aged 18 years and older. Because of clustering of individuals within households, standard errors on estimates were increased by an additional 20% (Australian Bureau of Statistics, personal communication), thus erring on the side of conservatism when examining differences between proportions. Table 2.17 shows that after adjustment for sex, age and SES group in a logistic regression analysis, smoking prevalence (defined as smoking at least weekly) was lower at follow-up (22.1%) than at benchmark (23.5%). There was no evidence of differential decline as a function of age, sex or SES although there was a lack of power to detect such differences.

A second measure of smoking prevalence was available for the informants who initially answered the telephone and provided information about their own smoking status. At benchmark, there were 6,632 informants aged 18 years and older, whilst at follow-up, there were 17,572. After adjustment for sex, age and SES group in a logistic regression analysis, smoking prevalence (defined as smoking at least weekly) was lower at follow-up (22.0%) than at benchmark (23.7%). Again, the decline seemed to be independent of age, sex and SES.

For the informant subsample, it was possible to examine state differences in smoking prevalence between the two surveys. There were no significant interactions

in relative change in prevalence between states, so that it is likely that the decline in prevalence observed here, applies to all states.

In summary, the data on change in quitting intentions, quitting attempts, getting help to quit, reported cessation, and smoking prevalence provide strong evidence that the campaign has been associated with an increase in quitting activity. There has been progress through stages of change towards quitting, there are stronger intentions to quit, a higher percentage of smokers who report having tried to quit, and a higher quit rate at follow-up compared with benchmark. In addition, more smokers are making use of the services available to help them quit, including the Quitline, heavily promoted during the campaign, which was contacted by one in 25 smokers. Furthermore, although the survey was not primarily aimed at measuring change in smoking prevalence, the estimates from the informant subsample and the enumerated household sample do suggest that a decline in prevalence is likely. These data need to be confirmed by reference to the smoking prevalence surveys routinely undertaken by some states, and interpreted in light of trends over time.

Both Victoria and South Australia, where there is yearly monitoring of smoking prevalence, were able to detect that the decline in adult smoking prevalence, which had occurred throughout the 1980s, had slowed around 1993 (Trotter et al, 1997; Wakefield, Roberts & Miller, 1998), although it was not until 1995 that this was clearly not due to a sampling effect. Since 1993 there has been a definite levelling off of smoking prevalence and even an equivocal suggestion of an increase (1996 estimates in Victoria were numerically marginally higher than in 1995). At least in Victoria, this stabilising of prevalence was contiguous with a decline in intentions to quit smoking (as measured by stage of change and intention to quit smoking in the next three months) and in quitting activity (Trotter et al, 1997). Against this background of stable or even increasing prevalence and decreasing quit intentions and quitting activity, the pattern of positive change presented in this report is of considerable practical significance and provides strong evidence that the campaign has contributed to an increase in quitting activity.

## **PRICE AND PURCHASE OF CIGARETTES**

In August 1997, the High Court of Australia ruled that state franchise fees placed on tobacco were invalid, leading to collection of all state taxes as well as excise duty by the Commonwealth, who then handed a percentage of the revenue on to the

states. These arrangements meant that in all states, there was an increase in the recommended retail price of most brands of cigarettes of the order of 3% per pack.

Since it is known that a real increase in the price of cigarettes can potentially reduce tobacco consumption (Townsend, 1988; Andrews & Franke, 1991; Department of Health, 1994), attempts to evaluate whether the campaign is associated with changes in smoking behaviour need to assess the likely impact of this potential price increase. It should be noted that whilst increases occurred in the recommended retail price, they may not have been passed onto the consumer, due to discounting practices. Whilst a price surveillance study to be reported in Volume 2 will provide further detailed information about discounting practices over the period of the campaign, the opportunity was taken in the evaluation surveys to determine whether there was any evidence of change in the reported price paid for cigarettes by smokers, and to examine changes in purchasing behaviour.

Other than quitting smoking completely, there are a number of methods that Australian smokers can employ to minimise the effects of a price increase. First, smokers can reduce their cigarette consumption, either by smoking fewer cigarettes per day, or moving to non-daily smoking. In addition, or as an alternative, other strategies that could be used to minimise a price increase include: buying cigarettes in bulk (moving from a pack to a carton), buying cigarettes at a cheaper retail outlet, changing to a larger pack size (cheaper per stick), changing to a cheaper brand, or changing to a cheaper form of tobacco, such as roll-your-own cigarettes.

TABLE 2.18 REPORTED CIGARETTE CONSUMPTION

At least weekly smokers	Benchmark	Follow-up
For daily smokers:	(n=799)	(n=1,870)
Mean cigs/day (sd)	17.6 (9.9)	18.3 (10.5)
% heavy smokers (25+)	26%	26%
For weekly smokers:	(n=81)	(n=274)
Mean cigs/day (sd)	5.0 (4.0)	5.1 (5.2)
Mean days smoked/week (sd)	3.3 (1.3)	3.1 (1.5)
For daily & weekly smokers:	(n=879)	(n=2092)
Mean cigs/day (sd)	16.4 (10.2)	16.9 (10.9)

First, we looked at smoking rate among cigarette smokers. Table 2.18 shows that, as expected, among daily smokers, there was virtually no change in the mean number of cigarettes smoked daily, nor in the percentage of heavy smokers. Among weekly smokers, there was also no change in the mean number of cigarettes smoked on average per day.

Next, we looked at whether the average reported price paid for cigarettes had changed between benchmark and follow-up surveys. Four measures of price were calculated, reflecting the need to take into account smokers who purchased their cigarettes in cartons or individual packs, and the differing pack sizes. Table 2.19 shows that, despite recommended retail price increases of around 20 cents per pack, there was no significant change in the mean price paid for a pack of cigarettes, or a carton of cigarettes. There was a slight increase in the cost per stick, but no change in the cost of buying cigarettes each day.

TABLE 2.19 REPORTED PRICE PAID FOR CIGARETTES

At least weekly smokers	Benchmark	Follow-up
Mean cost of pack (sd) [pack purchasers]	\$6.93 (1.36)	\$7.03 (1.43)
Mean cost of carton (sd) [carton purchasers]	\$38.96 (7.07)	\$37.84 (7.82)
Mean cost in cents per stick (sd) [entire sample]	22.6 (3.9)	23.0 (3.9)
Mean cost per day (sd) [entire sample]	\$3.44 (2.31)	\$3.55 (2.49)

An overall suggestion of little significant change in price paid, in the face of an increase in recommended retail price, suggests a need to examine the mechanisms by which this might have been achieved.

One option would be for smokers to purchase their cigarettes in cartons, rather than in individual packs. However, there was no change over time in the percentage of smokers who bought a carton (13%) as opposed to a pack.

Another option would be for smokers to purchase their cigarettes from cheaper retail outlets. Cigarette smokers, who smoked at least weekly, were asked “Thinking about the pack that you are using now, what sort of shop was it bought at?”. Table 2.20 shows a significant increase in the percentage of smokers who bought cigarettes in supermarkets and concomitant declines in the percentage of

smokers who bought cigarettes in milkbars/delicatessens, petrol stations and convenience stores. This is consistent with smokers increasingly seeking to purchase cigarettes from cheaper retail outlets. The effect was mainly accounted for by changes in retail outlet for pack purchasers, rather than carton purchasers.

TABLE 2.20 RETAIL OUTLET AT WHICH CIGARETTES PURCHASED

At least weekly smokers	Benchmark (n=949)	Follow-up (n=2,220)
Shop where bought pack or carton using now [smokers only]		
Supermarket	38%	43%
Milkbar/delicatessen	14%	10%
Petrol/service station	17%	15%
Convenience store	11%	10%
Specialist tobacconist	10%	10%
Hotel/club/restaurant	2%	2%
Vending machine	1%	1%
Newsagent/news stand	5%	5%
Liquor store	1%	1%
Somewhere else	2%	2%
Can't say	1%	1%

TABLE 2.21 CURRENT PACK SIZE

At least weekly smokers	Benchmark (n=927)	Follow-up (n=2,176)
Pack size using now [pack or carton]		
20	6%	7%
25	39%	43%
30	24%	19%
35	3%	2%
40	15%	15%
50	11%	13%

Another method smokers may use to minimise the effects of a price increase is to move to smoking cigarettes from larger packs. Those who smoked at least weekly were asked about the pack they were currently smoking. Table 2.21 shows that there was no evidence of a progression to larger pack size at follow-up,

compared with benchmark. This was the case for smokers overall, as well as for those who purchased individual packs and those who purchased cartons. However, there was a significant migration away from packs of 30s to packs of 25s, and this provides an explanation for the increase in the per stick cost reported in Table 2.19.

Within each brand of cigarettes, cigarettes of the same pack size are sold at the same price. Therefore, we aggregated the numbers of smokers who reported using each 'brand sister', and calculated the mean price reportedly paid for the pack, among those who bought their cigarettes in individual packs. At both benchmark and follow-up, the reported price paid was lower for every brand than the recommended retail price published in the Australian Retail Tobacconist in May and November 1997. In May 1997, when the benchmark survey was undertaken, the mean recommended retail price for 18 published brands was \$7.47, whereas in November the mean recommended retail price for these same brands had risen to \$7.70, an approximate 20 cent increase. By comparison, the reported mean price paid for the same 18 brands at benchmark and follow-up was \$6.93 and \$7.04 respectively – an approximate 10 cent increase. The reported price paid at benchmark was 7% lower than the recommended retail price, whilst at follow-up, it was 9% lower. This suggests that price discounting occurred before and during the campaign period, and may have occurred in a relatively more pronounced fashion at the time of the follow-up survey. An alternative, or additional possibility is that there was a migration towards buying packets of cigarettes in cheaper retail outlets. Thus, it is likely that the recommended price increase was not fully passed on to consumers. Furthermore, it is possible that greater than usual price discounting may have occurred during the campaign period, but we will need to await the results of the price surveillance study to determine this.

Tables 2.22 and 2.23 show that in most instances, the reported price paid for each brand sister, whether purchased in an individual pack or in a carton, did not vary over time. However, among individual pack purchasers, there were significant increases in the price paid for Benson and Hedges 25s, Horizon 50s, Longbeach 40s, and Winfield 25s, and a significant decrease in the price paid for Holiday 50s.

TABLE 2.22 MARKET SHARE AND REPORTED PRICE PAID FOR INDIVIDUAL CIGARETTE PACKS

At least weekly smokers	Benchmark % (n=798)	Mean cost (sd)	Follow-up (n=1,864)	Mean cost (sd)
Brand smoking now [pack purchasers only]				
1-B&H 20s	1%	6.03 (0.6)	1%	6.37 (0.9)
2-B&H 25s	12%	6.39 (0.5)	11%	6.57 (0.5)
3-Wills 35s	1%	7.17 (1.0)	<1%	7.37 (0.8)
4-Horizon 50s	9%	8.98 (1.7)	8%	9.63 (1.3)
5-Escort 35s	2%	7.28 (0.5)	2%	7.48 (0.5)
6-Horizon 30s	3%	6.28 (1.1)	1%	6.50 (1.0)
8-Stradbroke 40s	2%	7.83 (0.6)	1%	8.05 (0.7)
9-Alpine 25s	2%	6.21 (0.4)	4%	6.10 (0.5)
10-Longbeach 40s	12%	7.76 (1.1)	13%	8.11 (1.0)
11-Marlboro 20s	1%	5.92 (0.2)	1%	5.86 (0.3)
12-Marlboro 25s	1%	6.06 (0.7)	1%	6.04 (0.7)
13-Peter Jackson 20s	4%	5.76 (1.0)	3%	5.90 (1.1)
14- Peter Jackson 30s	18%	6.80 (0.6)	17%	6.84 (0.6)
15-Longbeach 25s	1%	6.33 (2.0)	2%	5.84 (1.3)
20-Peter Stuyvesant 20s	2%	6.00 (0.7)	2%	5.76 (0.3)
21-Winfield 25s	16%	6.15 (0.6)	20%	6.28 (0.7)
22-Dunhill 25s	6%	6.50 (0.4)	5%	6.58 (0.4)
24-Holiday 50s	4%	9.18 (0.6)	5%	8.52 (1.7)
28-St Moritz 25s	<1%	6.47 (0.6)	1%	6.77 (0.4)
29-Brandon 40s	1%	7.27 (0.5)	<1%	7.41 (0.4)
30-Freedom 30s	1%	5.43 (0.3)	<1%	5.87 (0.8)

NB: Brands where market share was <1% at both surveys were excluded due to small cell sizes

There were similar trends in reported price among carton purchasers, although none of the differences achieved statistical significance. Tables 2.22 and 2.23 also suggest that, among the larger pack sizes, there may have been migration away from Horizon 50s (reportedly the most expensive brand) to Holiday 50s, which offered a cheaper large pack alternative. This may be the case since, despite a reportedly higher price at follow-up, Winfield 25s still offered a cheaper alternative to Benson and Hedges 25s.

A final strategy that could have been employed by smokers who faced a price increase may be to change to other types of tobacco. Among cigarette smokers, we looked at the percentage who had smoked cigars and/or pipes over

the past year and the percentage who smoked roll-your-own cigarettes, at benchmark and follow-up. Table 2.24 shows that there was little change in the percentage who had smoked cigars and pipes at follow-up, compared with benchmark. However, there was an increase in the percentage of smokers who smoked roll-your-own cigarettes. During the year, there were unconfirmed reports that loose tobacco sold in plastic bags was increasingly being sold over the counter from retail outlets. This is a matter of some concern to the Department of Customs and Excise, since the tobacco is sold very cheaply, having avoided excise duty (Australian Retail Tobacconist, March 1998). These reports were further strengthened when Customs and Excise personnel were reported as apprehending manufacturers allegedly involved in a large scale loose tobacco tax evasion operation (The Age, 13 August 1998). It may be the case that this operation, and perhaps others like it, provided access to a cheaper form of tobacco for making roll-your-own cigarettes, which may account for increases in the percentage of smokers who choose this form of tobacco smoking.

TABLE 2.23 MARKET SHARE AND REPORTED PRICE PAID FOR CARTONS

At least weekly smokers	Benchmark % (n=118)	Mean cost (sd)	Follow-up (n=268)	Mean cost (sd)
Brand smoking now [carton purchasers only]				
2-B&H 25s	13%	42.53 (4.4)	8%	43.62 (8.9)
4-Horizon 50s	14%	36.35 (1.1)	10%	36.92 (2.6)
5-Escort 35s	1%	40.25 (0.8)	1%	40.62 (2.3)
6-Horizon 30s	1%	26.98 (0.1)	2%	27.66 (2.1)
9-Alpine 25s	5%	45.00 (0.0)	5%	43.12 (8.8)
10-Longbeach 40s	22%	36.33 (2.6)	23%	36.11 (4.3)
14- Peter Jackson 30s	11%	41.18 (8.5)	11%	40.48 (8.8)
21-Winfield 25s	15%	43.41 (5.4)	16%	42.79 (6.3)
22-Dunhill 25s	5%	48.24 (2.1)	2%	46.82 (1.4)
24-Holiday 50s	6%	33.71 (1.6)	11%	31.88 (4.9)
29-Brandon 40s	2%	27.74 (1.4)	1%	28.40 (1.9)
30-Freedom 30s	3%	21.04 (1.7)	1%	21.42 (0.6)

NB: Brands where market share was <1% at both surveys were excluded due to small cell sizes

TABLE 2.24 SMOKERS WHO SMOKED CIGARS, PIPE AND ROLL-YOUR-OWN CIGARETTES

<b>At least weekly smokers</b>	<b>Benchmark (n=1,094)</b>	<b>Follow-up (n=2,642)</b>
Cigar smokers	19%	20%
Pipe smokers	4%	5%
Roll-your-own	13%	16%

Taken together, the data pertaining to price and purchase patterns suggest that although there was an increase in the recommended retail price of cigarettes of approximately 20 cents per pack, there appeared to be less increase in the reported price paid for cigarettes among smokers in the two surveys. Indeed, the price paid at benchmark was 7% lower than recommended retail price, while at follow-up it was 9% lower for the specific recommended retail brands. One interpretation of this finding is that price discounting may have neutralised the impact of the recommended price increase.

From the data available, it would seem that any price increase that was passed on to smokers, was successfully minimised by using three methods. The main method used was to purchase cigarettes from cheaper retail outlets, such as supermarkets. It is possible that a secondary method that may have been employed was brand switching in pursuit of cheaper packs. A third method may have been to switch from smoking manufactured cigarettes to roll-your-own cigarettes. However, there was no evidence that smokers migrated to larger pack sizes, or chose to increasingly purchase cigarettes in cartons over the two surveys. There was also no change in the number of cigarettes reportedly smoked each day or each week, suggesting that smokers have opted to find cheaper ways of accessing cigarettes, rather than cutting down on consumption.

On the basis of these data, we conclude that there was no substantial change in the reported price paid for cigarettes that would have been sufficient to cause a decline in smoking prevalence. This means that variation in price can be eliminated as a potential confounder in accounting for reduction in smoking prevalence when examining the relationship between campaign exposure and smoking prevalence. More detailed information about specific price discounting

practices over the duration of the campaign period will be available when the price surveillance study is reported in Volume 2.

### EFFECT OF THE CAMPAIGN ON NON-SMOKERS

Table 2.25 shows that unprompted recall of advertising about health did not change between the benchmark and follow-up surveys for non-smokers. However, among those who recalled health advertising, spontaneous mention of anti-tobacco advertising was more common at follow-up than at benchmark. In total, unprompted mentions of anti-tobacco advertising occurred amongst nearly one-third of non-smoker respondents at follow-up, compared with only 17% at benchmark.

TABLE 2.25 RECALL OF ANTI-SMOKING ADVERTISING BY NON-SMOKERS

Non-smokers	Benchmark (n=787)	Follow-up (n=1,216)
Seen any health advertising in the past 3 months [entire sample]	74%	75%
Unprompted recall of anti-tobacco advertising (of those who saw health advertising) [entire sample]	22% (n=580) [17%]	43% (n=895) [32%]

In the follow-up survey, when the campaign advertising was described, 82% of non-smokers said they had seen campaign advertising. However, when the campaign was described in the benchmark survey, 16% mistakenly believed that they had seen it, so some of the follow-up recognition needs to be discounted. Of non-smokers who recognised the campaign advertising at follow-up, 64% thought that it would help smokers quit and/or recent ex-smokers stay off cigarettes.

Table 2.26 shows a similar pattern of findings with respect to smoking-related health beliefs, as was apparent among smokers and recent quitters. New learning about smoking and health was more commonly reported among non-smokers at follow-up, as was agreement with the statement 'Every cigarette is doing you damage'. There were increases in the percentage of non-smokers who believed that smoking blocks arteries and causes damage to a gene in lung cells, both of which, were campaign related messages. Although there was little change

in belief that smoking causes decay in the lung cells, nearly all non-smokers were of that view in the benchmark survey, leaving little room for positive change. More non-smokers disagreed at follow-up that smoking the occasional cigarette does no damage to health. In the main, there was no change in agreement with general statements about smoking and health, or statements that were unrelated to the campaign communication.

TABLE 2.26 RESPONSE OF NON-SMOKERS TO SELECTED QUESTIONS

<b>Non-smokers</b>	<b>Benchmark (n=787)</b>	<b>Follow-up (n=1,216)</b>
Learned anything new about smoking and health in past 6 months (% yes)	15%	23%
Which is nearest to the truth? "Every cigarette is doing you damage" vs "You have to smoke for several years": (% Every cigarette is doing you damage)	89%	92%
Smoking makes the body age faster (% true)	84%	85%
Smoking causes decay in the lungs (% true)	98%	98%
Smoking blocks up arteries with fatty deposits (% true)	48%	82%
Smoking causes damage to genes in lung cells (% true)	72%	77%
Agree/disagree with opinion statements: [entire sample]		
Smoking causes lung cancer (% agree)	97%	97%
Smoking causes heart disease (% agree)	88%	93%
Your smoking can harm others (% agree)	96%	97%
Smoking causes emphysema (% agree)	92%	91%
The dangers of smoking have been exaggerated (% disagree)	89%	86%
Smoking can't be all that bad because many people smoke all their lives and live to a ripe old age (% disagree)	88%	86%
Smoking the occasional cigarette doesn't cause any damage to your health (% disagree)	76%	78%

Fewer non-smokers disagreed at follow-up that the dangers of smoking have been exaggerated. It may be that the campaign influenced non-smokers to be more likely to respond in this way.

There was little change in the percentage of non-smokers at benchmark (98%) and follow-up (96%) who thought that, a year from now, they probably or definitely will not be smoking.

Overall, the campaign was seen and remembered by non-smokers, and there were specific increases in health beliefs that were the subject of campaign advertising and are therefore likely to be attributable to the campaign. Contrary to the views of smokers and recent quitters, it may be the case that the campaign advertising was perceived by non-smokers to have presented an exaggerated picture of the effects of smoking on health. Despite this caution, non-smokers continued to perceive themselves as unlikely to take up smoking over the period of the campaign. Therefore, we conclude that the campaign was unlikely to have been responsible for any adverse effects on non-smokers.

## Conclusion

Taken together, the results of these surveys provide convincing and consistent evidence that the National Tobacco Campaign has influenced smokers in the manner intended. Clearly, the campaign advertising and its messages were seen and remembered by smokers, and made smokers think about quitting. The messages the campaign advertising sought to convey were remembered and taken on board as new learning by smokers to the extent that attitudes to smoking changed and beliefs and awareness about specific disease processes and the damaging effects of cigarettes 'Every cigarette is doing you damage' increased from benchmark to follow-up surveys. This increase occurred in the absence of any systematic increase in general beliefs about smoking and illness or in beliefs which were not the subject of campaign advertising.

Over this same period, consistent with a positive campaign influence, there were increases in intention to quit and quit attempts. Overall, these effects applied to males and females, older and younger participants and smokers and recent quitters at all levels of educational attainment. Where relative differences in change were observed, these mainly served to minimise the differences between subgroups, which had previously existed at benchmark.

It is clear that apart from promoting quitting activity among current smokers, the campaign has played a role in preventing relapse. Recent quitters reported that the campaign advertising made them more likely to stay quit, and the increase in one-year quit rates associated with the campaign demonstrates an increase in likelihood of maintaining cessation over the longer term.

The data available from the evaluation surveys on smoking prevalence for the informant subsample and the enumerated household sample suggest a reduction in prevalence. Given that any reported price increase for cigarettes was minimised by smokers through varying their purchasing patterns during the survey period, price variation is unlikely to explain such a prevalence decline. The final judgement as to whether the campaign has influenced smoking prevalence, as pointed out earlier, will need to be made in the light of state-based and national prevalence series, where the use of standard questions and underlying trends in prevalence leading up to the campaign launch can be interpreted. Our best estimate at this point is that reduction in prevalence associated with the campaign is very likely. However, we will need to evaluate data for a further one to two years more before being totally confident of that.

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## **Appendix 2A**

# **Benchmark And Follow-up Telephone Surveys**

## **A HOUSEHOLD ENUMERATION**

### INTRODUCTION

Hello, my name is ..... from Roy Morgan Research, the people who conduct the Morgan Gallop Poll. I am ringing to conduct a survey on some health issues. I need to speak to someone in your household aged 18 years or older. (Ensure respondent is 18 or older . If <18, get someone >18.)

Roy Morgan Research is conducting some research on behalf of the government looking at health issues. Please be assured that any information you give us will be strictly confidential. The questions we would like to ask will only take three or four minutes to answer. Is it convenient to talk now or would you like to make an appointment?

### UNBIASED CAMPAIGN SALIENCE

**q1 During the past three months have you seen or heard advertising campaigns on TV, radio, in the newspaper or anywhere else, encouraging people to do things to improve their health?**

**q2 What was the advertising campaign(s) about? Prompt exhaustively.**

#### **Explain and obtain household enumeration:**

I will now ask you some questions about who lives in your household. I would like to reassure you that your telephone number has been drawn randomly from the ..... telephone directory and that any information you provide me will be strictly confidential and will be used for statistical purposes only.

We are discussing issues that may affect the whole family or household, so I'd like to start by getting some details about the people who live at your place. Just to make sure we include everyone, I need to record the age, first name or nickname and sex of everyone living in your household, including yourself and anyone who normally lives there but is temporarily away.

**q3 First of all, including yourself, what is the total number of people in your household?**

**q4a Would you mind telling me your approximate age?**

**q5a Do you smoke cigarettes on at least a weekly basis?**

If No/Can't say:

**q5aa Did you stop smoking cigarettes on a weekly basis more than one year ago, less than one year ago or have you never smoked on a weekly basis?**

**q6a Record sex of respondent.**

**q7a What is your first name or nickname?**

If more than one person in household:

**Now thinking about the other household members**

**q4b What is the age of the oldest person (excluding yourself) living in your household?**

If aged 18 years or over:

**q5b Does this person smoke cigarettes on at least a weekly basis?**

If No/Can't say:

**q5bb Did this person stop smoking cigarettes on a weekly basis more than one year ago, less than one year ago or have you never smoked on a weekly basis?**

**q6b Is this person male or female?**

**q7b What is his/her first name or nickname?**

If 3 or more people in household ask:

**q4c What is the age of the second oldest person (excluding yourself) living in your household?**

Continues up to 14th person living in household ie:

How old is (he/she)? (AGE)	What is (his/her) first name	Is this person male or female? (SEX)	Weekly smoker	Quit last year	Not smoked last year	Never smoked

Enter age as 1 for everyone under one year

**HOUSEHOLD LANGUAGE AND OCCUPATIONAL STATUS**

**q9 What language do the adult(s) in your household speak most of the time when they are at home?**

**q10 What is the main income earner's occupation? (Allow multiple responses.)**

**POSTCODE (AND SPIEL TO REASSURE ABOUT PRIVACY)**

Because we rang your phone number at random, without knowing the address, I'd like to record just the postcode where you live, so we can look at results by each geographic area.

**q10a Can you please tell me the postcode of your address?**

## **B INDIVIDUAL INTERVIEW**

Selecting 75% weekly smokers or quit in last year & 25% other respondents.

Define rules for identifying target respondent(s) from this household.

Thank you very much. For the purposes of this survey I now need to randomly select someone in your household over the age of 18 from the list you gave me earlier and ask them some more detailed questions.

Thank you for your time and assistance. May I please speak to .....?

Continue to request household members or make appointment to call back.

### **END OF SCREENER INTERVIEW**

#### **OVERALL CAMPAIGN SALIENCE**

Ask of all except person who completed screener.

**q11 During the last three months, have you seen or heard any advertising campaigns on TV, radio, in the newspaper or anywhere else encouraging people to do things to improve their health?**

**q12 What were the advertising campaign(s) about? Prompt exhaustively.**

#### **SALIENCE OF HEALTH EFFECTS**

**q14 In your opinion, are there any illnesses caused by smoking?**

- |     |               |
|-----|---------------|
| YES | 1             |
| NO  | 2 (Go to q16) |

If Yes:

**q15 Which illnesses are caused by smoking cigarettes? Do not aid**

- Asthma
- Blocked arteries
- Blocked blood vessels
- Blood pressure
- Bronchitis
- Cancer (unspecified)
- Lung cancer
- Throat cancer
- Heart disease
- Lung damage / Kills lung cells
- Pregnancy complications
- Premature ageing

Reduced fitness  
Respiratory diseases  
Stroke/Vascular disease  
Ulcers  
Wrinkles  
Other (specify)  
None  
Can't say

**q15a What else? Anything else? Prompt exhaustively.**

Highlight first mentioned only, then circle All others mentioned.

**q16 In your opinion, are there any (other) forms of damage to the body caused by smoking?**

Yes 1  
No 2 (Go to q18)

**q17 What damage is caused to the body by smoking?**

(Add to list above if illnesses and damages mentioned, so post-prompt can be distinguished from those pre-prompt).

**q17a What else? Anything else? Prompt exhaustively.**

#### SMOKING BEHAVIOUR

**q18 Do you now smoke cigarettes daily, at least weekly, less often than weekly, or not at all?**

If 'at least weekly' go to q20.

**q19 Have you ever smoked cigarettes on at least a weekly basis ?**

If no-ineligible. If in smoker fraction, go to q27.

If ever smoked:

**q20 Approximately how many years ago did you start smoking regularly?**

Record in years (less than 1 year, record 0).

If current smoker, go to q22.

If no longer smokes:

**q21 Did you stop smoking cigarettes (on a weekly basis) more or less than one year ago?**

**q21a Approximately how many weeks/years ago did you stop smoking (on a weekly basis)?**

Record in weeks to 1 year, then in years (for non-smoker subset).

If greater than 1 year ineligible if in smoker fraction.

All quitters go to q27.

FEELINGS ABOUT SMOKING

**q22 Do you feel good or bad about being a smoker, or do you have mixed feelings?**

If good/bad:

Is that very or somewhat?

If mixed feelings:

Is that more good, more bad, or equal?

STAGE OF CHANGE / PERSONAL AGENDA / URGENCY TO QUIT

**q23 Are you seriously considering quitting smoking cigarettes in the next six months?**

If Yes:

**q24 Are you planning to quit smoking cigarettes in the next 30 days?**

If Yes:

**q25 Have you set a date when you plan to quit smoking cigarettes?**

If Yes:

**q26 How many days from today is your quit date?**

INTENTION TO CONTINUE/TAKE UP SMOKING (ASK ALL)

**q27 A year from now, how likely is it that you will be smoking?**

Read out.

- Definitely will be smoking
- Probably will
- Might or might not
- Probably will not
- Definitely will not be smoking
- (Don't read) Can't say

All long-term ex-smokers and non-smokers to q30.

RESISTING URGES (ASK SMOKERS AND RECENT EX-SMOKERS)

**q28 During the past two weeks, was there any occasion when you were about to smoke a cigarette but resisted the urge?**

If recent quitter, go to q30.

**q29 During the last two weeks, how often have you thought about quitting smoking cigarettes?**

**Would you say:**

- Several times a day
- Once a day
- Once every few days

- Once a week
- Once in the last two weeks
- Not at all
- (Don't read) Can't say

#### PERSONAL RISK OF ILLNESS

**q29a What do you think is the likelihood of becoming ill from your smoking if you continue to smoke?**

- Not at all likely
- Not very likely
- 50/50
- Very likely
- Certain
- (Don't read) Can't say

#### CHECK CERTAINTY OF EFFECTS (ASK ALL)

**q30 In your opinion, which of the following two statements is nearest to the truth?**

“You have to smoke for several years to do any damage to your health.”

OR

“Every cigarette you smoke is doing you damage to your health.”

OR

(Don't read) Can't say

#### PERSONAL SALIENCE OF HEALTH EFFECTS

**q31 Has smoking already done any harm to your body? Would you say it ...**

- Definitely has
- Probably has
- Perhaps it has
- Probably not
- Definitely not
- (Don't read) Can't say

#### CHECK IMAGE SALIENCE AND ASSOCIATIVE LINKS

**q32 When you think about the health damage smoking causes to the body, what images or mental pictures come to mind? Prompt exhaustively.**

**q33 (Smokers) Do you ever think of images like the ones you've just described when you smoke a cigarette?**

**q34 (Everyone) Do you ever think of images like the ones you've just described when you see someone smoking?**

**q35 When you bring these images to mind, what do they make you feel? Prompt exhaustively. Record.**

CHECK 'NEW NEWS' AND ACTIONS RESULTING

**q36 During the past six months, have you learned anything new about the effects of smoking cigarettes on health?**

If Yes:

**q37 What have you learnt?**

- Gunk, deposits, build-up, clogging, sticky arteries/artery walls/aorta, happens to young smokers.
- Lungs are like sponges/air sacks/tobacco, smoking destroys air sacks, smoking rots lungs, lose breath because of damage to air sacks.
- Know how smoking causes lung cancer, DNA/gene protects from cancer/chemicals, smoking attacks p53/without p53 more likely to get cancer.
- Every cigarette is doing you damage.
- Other (Specify)
- Can't say

If long term ex-smoker or non-smoker, go to q45

**Other possible ad effects (ask smokers and recent ex-smokers)**

**q38 During the past six months, have you done any of the following:**

**Prompt exhaustively.**

- Discussed smoking and health at home?
- Rung the quit help line?
- Asked your doctor for help to quit?
- Used nicotine gum or nicotine patch?
- Bought a product other than nicotine gum or nicotine patch to help you quit?
- Read 'How to quit' literature
- (Don't read) None of the above
- (Don't read) Can't say

**q38a During the past six months, have you done anything else to help you quit smoking?**

**Prompt exhaustively**

- Other (Specify)
- Can't say
- Done nothing else
- Indirect effects (ask smokers and recent ex-smokers)

**q39 During the past six months has anybody at your house been trying to get you to quit smoking?**

If Yes:

**q40 What is that person's relationship to you?**

- Parent
- Child
- Sibling
- Partner/Spouse
- Friend/Flatmate
- Other

CONFIDENCE TO QUIT (ALL SMOKERS AND RECENT EX-SMOKERS)

**q41 How likely or unlikely is it that you'll be able to stop smoking permanently? Encourage best guess.**

If likely read 1-4 , if unlikely read 4-7, if can't say read 3-5.

- 1  Definitely will
- 2  Very likely
- 3  Quite likely
- 4  50/50
- 5  Quite unlikely
- 6  Very unlikely
- 7  Definitely will not
- 8  (Don't read) Can't say

**q41a Assuming that you try to stop smoking, how likely or unlikely is it that you'll be able to stop smoking permanently?**

Response as above.

SMOKING ATTITUDES/KNOWLEDGE (ASK ALL)

**In your opinion are the following statements true or false?**

(Record True, False, Don't Know) (alternate order)

**q45 Smoking makes the body age faster.**

**q46 Smoking causes decay in the lungs.**

**q47 Smoking blocks up arteries with fatty deposits.**

**q48 Smoking causes damage to the genes in lung cells.**

Thinking about the statements you think are true: (Read out all that were deemed 'True' in the order they were read)

**q49 Which one has the most impact on your thinking about smoking?**

(Allow response of options, none, and can't say)

Encourage best guess.

I will now read out a series of statements. For each statement, could you please tell me to what extent do you agree or disagree that these statements are true?

Option: five point strongly agree to strongly disagree.

**q51 Smoking causes lung cancer**

**q52 Smoking causes heart disease**

**q53 (Your) Smoking can harm others**

**q54 Smoking causes emphysema**

**q55 The dangers of smoking have been exaggerated**

**q56 Smoking can't be all that bad for you because many people smoke all their lives and live to a ripe old age.**

**q57 Smoking the occasional cigarette doesn't cause any damage to your health**

Smokers only.

**q58 It would improve my health if I quit smoking**

**ASSESSMENT OF CAMPAIGN EFFECT (ASK ALL)**

There are a series of television ads which feature smokers inhaling cigarette smoke. In the ads we follow the cigarette smoke down the smoker's throat and into their lungs, after which we hear and see a demonstration of the effects smoking has on the body. After this, we pass back through the smoker's throat as they exhale and on the screen appears a telephone number and the campaign slogan 'Every cigarette is doing you damage'. This slogan also appears in other campaign advertising.

**q58a Have you seen, read or heard any advertising from this campaign?**

If Yes:

**q58b Thinking about when you saw, read or heard this advertising, was it:**

- On television
- On radio
- On the sides of buses
- On television in a doctor's waiting room

- On signs in shopping centres
- In the newspaper
- Somewhere else (specify)
- (Don't read) Can't say

Thinking about this anti-smoking campaign as a whole:

- q59 (Smokers) Do you think it has made you more or less likely to quit smoking or made no difference?**
- q60 (Recent ex -smokers) Do you think it has helped you to stay quit, made it more difficult for you to stay quit, or had no effect?**
- q61 (Non smokers) Do you think it would help smokers quit and/or recent ex-smokers stay off cigarettes?**

OTHER TOBACCO USE (ASK ALL)

- q62 In the last year have you smoked any cigars or pipes?**
- Cigars
  - Pipes
  - Neither

Daily smokers go to q67

Recent ex-smokers go to q71

Longer ex-smokers and non-smokers to q80

IDENTIFY OCCASIONAL AND REDUCING SMOKERS

- q65 (Occasional smokers) You said before that you only smoke cigarettes on some days of the week. On how many days per week do you usually smoke?**
- q66 Do you smoke on more days, fewer days or the same amount of days than you did six months ago?**
- More days
  - Fewer days
  - The same
  - Can't say

BRAND AND CONSUMPTION (ALL SMOKERS)

- q67 Do you mainly smoke roll-your-own cigarettes?**

If yes, go to q69

If no, ask:

**q67a What is the brand and pack size of the cigarettes you smoke most often?**

Brand \_\_\_\_\_

Pack size \_\_\_\_\_

**q68 How many packs per week do you smoke?**

**q69 How many cigarettes per day would you smoke on average?**

If non-daily, ask:

**q70 How many cigarettes per week would you smoke on average?**

#### CHANGE IN CONSUMPTION – ASK SMOKERS AND RECENT EX-SMOKERS

**q71 About how many cigarettes per week were you smoking at this time one year ago?**

#### QUITTING HISTORY (SMOKERS ONLY)

**q72 Have you ever tried to quit smoking?**

**q73 How long ago did you last try to quit smoking?**

**q74a How long on that occasion did you stay off smoking cigarettes?**

#### SUPPLIER AND PRICE

**q75 Thinking about the pack you are using now, what sort of shop was it bought at?**

- Convenience store (7 Eleven etc.)
- Petrol or service station
- Supermarket
- Specialist tobacconist (shop or stall)
- Hotel or restaurant
- Vending machines
- Milkbar/Deli
- Newsagent
- Liquor store
- Other (specify) \_\_\_\_\_
- (Don't read) Can't say

**q76a Was that a pack or a carton?**

If pack:

**q76ap Could you tell me what the cost of the pack was?**

**q76bp Could you please tell me the number of cigarettes in the pack?**

If carton:

**q76aac Could you tell me what the carton of the pack was?**

**q76bc Could you please tell me the number of cigarettes in the carton?**

**q77 Was this a packet/carton of the brand you mentioned before as the one you smoke the most often?**

If not:

**q77a What was the brand of this pack/carton?**

DEMOGRAPHICS OF PRIMARY RESPONDENT (ASK ALL)

**q80 Can you please tell me what is the highest educational level you have attained?**

- Some primary school
- Finished primary school
- Some secondary school
- Finished secondary school
- Some tertiary education (University, TAFE or College)
- Finished tertiary education
- Higher degree or higher diploma (eg PhD, Masters or Graduate Diploma)
- Can't say (Don't read)
- Refused

**q81 Which of the following best describes your employment status?**

- Working full-time
- Working part-time
- Retired/Pensioner
- Student
- Non-worker
- Home duties
- Unemployed/looking for work

**q82 What is your (last) occupation – the position and industry?**

Thank you for your time and assistance. May I please speak to .....?

End or continue with next respondent.

## Appendix 2B

# State Data For Selected Variables

The benchmark and follow-up surveys were designed to detect any change in the national picture, rather than to yield precise estimates for states. Therefore, individual state figures may not give an accurate assessment of change and it is important to consider the overall pattern of change across variables, rather than focusing on change in one variable or focusing on a single percentage value.

Variables for which the denominator included the whole sample of smokers, or included all smokers and recent quitters, were examined. Other variables, which applied only to a sub-sample of smokers, or to recent quitters only, yielded cell sizes too small for reliable statistical analysis.

In general, data for states show consistent patterns of change where there is change at the national level and no change where there is no or little change at the national level. The only exception of note to this is the fact that Western Australian participants had higher unprompted recall of tobacco advertising in the benchmark survey and this was most likely due to having run a campaign in the period prior to the benchmark survey. Importantly, there are no states who consistently do worse (or better) than others on all variables examined.

This pattern of findings strongly implies that the National Tobacco Campaign had relatively equal effects in all states. The state data are simply presented here as visual evidence supporting this conclusion.

TABLE 2B.1 NUMBER OF SMOKERS AND RECENT QUITTERS INTERVIEWED, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Number of smokers and recent quitters interviewed:		
Total	1,192	2,981
New South Wales (incl ACT)	422	1055
Victoria	298	746
Queensland	220	550
South Australia (incl NT)	106	266
Western Australia	118	295
Tasmania	28	70

TABLE 2B.2 UNPROMPTED RECALL OF ANTI-TOBACCO ADVERTISING, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Unprompted recall of anti-tobacco advertising [entire sample]:		
Total	25%	46%
New South Wales (incl ACT)	20%	4% <sup>1</sup>
Victoria	28%	45%
Queensland	22%	52%
South Australia (incl NT)	27%	52%
Western Australia	42%	56%
Tasmania	27%	45%

TABLE 2B.3 RECOGNITION OF NATIONAL TOBACCO CAMPAIGN ADVERTISING, BY STATE

Smokers and recent quitters (within the last year)	Follow-up
Recognition of campaign advertising [entire sample]:	
Total	87%
New South Wales (incl ACT)	89%
Victoria	89%
Queensland	86%
South Australia (incl NT)	80%
Western Australia	87%
Tasmania	84%

TABLE 2B.4 NEW LEARNING ABOUT SMOKING AND HEALTH IN THE PAST SIX MONTHS, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Learned anything new about smoking in past six months [entire sample]		
Total	14%	23%
New South Wales (incl ACT)	15%	23%
Victoria	15%	25%
Queensland	13%	22%
South Australia (incl NT)	12%	21%
Western Australia	11%	19%
Tasmania	11%	23%

TABLE 2B.5 AGREEMENT WITH STATEMENT 'SMOKING CAUSES DECAY IN THE LUNGS', BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Smoking causes decay in the lungs (% true) [entire sample]		
Total	93%	95%
New South Wales (incl ACT)	93%	94%
Victoria	95%	95%
Queensland	92%	96%
South Australia (incl NT)	95%	96%
Western Australia	93%	95%
Tasmania	94%	94%

TABLE 2B.6 AGREEMENT WITH STATEMENT 'SMOKING BLOCKS UP ARTERIES WITH FATTY DEPOSITS', BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Smoking blocks up arteries with fatty deposits (% true) [entire sample]		
Total	54%	83%
New South Wales (incl ACT)	53%	82%
Victoria	54%	85%
Queensland	56%	81%
South Australia (incl NT)	61%	88%
Western Australia	46%	83%
Tasmania	53%	83%

TABLE 2B.7 AGREEMENT WITH STATEMENT 'SMOKING CAUSES DAMAGE TO GENE CELLS IN THE LUNGS', BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Smoking causes damage to the gene cells in the lungs (% true) [entire sample]		
Total	67%	78%
New South Wales (incl ACT)	60%	75%
Victoria	70%	81%
Queensland	76%	78%
South Australia (incl NT)	65%	81%
Western Australia	73%	77%
Tasmania	71%	77%

TABLE 2B.8 PERCEIVED LIKELIHOOD OF BECOMING ILL FROM SMOKING, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Perceived likelihood of becoming ill from smoking (% likely) [entire sample]		
Total	45%	52%
New South Wales (incl ACT)	41%	52%
Victoria	46%	54%
Queensland	45%	49%
South Australia (incl NT)	49%	54%
Western Australia	53%	54%
Tasmania	47%	51%

TABLE 2B.9 PERCEPTION AS TO WHETHER SMOKING HAS ALREADY DONE HARM, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Has smoking already done any harm to your body? (% probably has) [entire sample]		
Total	51%	57%
New South Wales (incl ACT)	56%	55%
Victoria	44%	57%
Queensland	57%	58%
South Australia (incl NT)	51%	57%
Western Australia	48%	58%
Tasmania	51%	52%

TABLE 2B.10 PERCENTAGE OF SMOKERS IN PRECONTEMPLATION, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Stage of change (% precontemplation) [entire sample]		
Total	48%	43%
New South Wales (incl ACT)	50%	45%
Victoria	49%	45%
Queensland	45%	37%
South Australia (incl NT)	49%	43%
Western Australia	45%	42%
Tasmania	54%	42%

TABLE 2B.11 INTENTION NOT TO BE SMOKING A YEAR FROM NOW, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Smoking a year from now (% will not be) [entire sample]		
Total	36%	41%
New South Wales (incl ACT)	36%	39%
Victoria	37%	41%
Queensland	39%	42%
South Australia (incl NT)	29%	40%
Western Australia	35%	42%
Tasmania	31%	41%

TABLE 2B.12 QUINDEX, BY STATE

Smokers and recent quitters (within the last year)	Benchmark	Follow-up
Quindex mean value (sd) [entire sample]		
Total	3.62 (2.6)	3.95 (2.8)
New South Wales (incl ACT)	3.62 (2.5)	4.02 (2.8)
Victoria	3.77 (2.7)	3.77 (2.6)
Queensland	3.51 (2.4)	4.11 (2.8)
South Australia (incl NT)	3.41 (2.7)	3.82 (2.6)
Western Australia	3.68 (2.5)	4.00 (2.8)
Tasmania	3.31 (2.8)	3.86 (2.8)

# Appendix 2C

## Calculation of Quindex Scores

COMPOSITE QUIT INDEX BASED ON THE SUMMING OF AN INDIVIDUAL'S TOTAL SCORES FOR THE FOLLOWING ITEMS:

[Points scored in parenthesis, range = 0 to 13]

For those describing themselves as either daily or weekly smokers: [sum.3]

- Smoking status [cigarettes] (Daily smoker [0], Weekly smoker [2] )
- Likelihood of smoking in a year's time (Definitely will [0], Probably will [1], Might or might not [2], Probably not [3], Definitely not [4] )
- Seriously considering quitting in the next six months (No [0], Yes [1] )
- Planning to quit in the next 30 days (No [0], Yes [1] )
- (If so) When planning to quit (In over 10 days [0], In the next 10 days [1] )
- Have attempted to quit smoking in the last two weeks (No [0], Yes [1] )

For those describing themselves as either less than weekly smokers or ex-smokers: [sum.2]

- Smoking status [cigarettes] (Less than weekly smoker [4], Ex-smoker [6] )
- Likelihood of smoking in a year's time (Definitely will [0], Probably will [1], Might or might not [2], Probably not [3], Definitely not [4] )
- When Quit/Cut down to less than weekly (Within the last month [1], In the last six months [2], In the last year [3] )

**The greater the score = the greater 'quitting activity/intention'**