

Analysis of 2005/2006 Data:

**Initial Consumer Reactions to the
Graphic Health Warnings**

**Prepared by Elliott & Shanahan Research as part of
the Evaluation of the Effectiveness of the
Graphic Health Warnings on
Tobacco Product Packaging
2008**

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1. Executive Summary

Health warnings have been on tobacco product packaging in Australia since 1973. From 1 March 2006, most Australian-manufactured and imported tobacco product packaging must be printed with the new graphic health warnings as outlined in the Trade Practices (Consumer Product Information Standards) (Tobacco) Regulations 2004 (the Regulations).

The fundamental purpose of this report is to analyse and assess the existing Departmental quantitative survey data in order to evaluate community reactions to the tobacco pack health warnings.

The surveys analysed for this report are as follows:

- The National Tobacco Survey (NTS) conducted in November/December 2005, prior to the introduction of the graphic health warnings;
- The NTS conducted in November/December 2006, approximately eight months after the introduction of graphic health warnings;
- A National Omnibus Survey, conducted in March 2006, around the time of the introduction of the graphic health warnings; and
- A National Omnibus Survey, conducted in July 2006, approximately four months after the introduction of graphic health warnings.

As a result of the normal business flow of products, packaging with graphic health warnings and packaging with the former text-only health warnings were both available for retail at 1 March 2006. It took some months before packaging with the graphic health warnings were predominantly available on retail shelves. Wave 2 of the National Omnibus Survey indicated that, in July 2006, nearly 7 out of 10 smokers reported their current tobacco packet had graphic health warnings.

While we were unable to make direct comparisons between the surveys due to differing sample definitions, some comparisons of the general trends found in the four surveys have been made in this section and the Discussion section of this report.

The key findings from the four surveys regarding the graphic health warnings were as follows:

1. *There is strong public approval for the health warnings on tobacco packaging.*

Three quarters of the total sample (75%) in the 2006 NTS considered it important to have health warnings on tobacco packaging, with support for the warnings being greatest amongst 16-17 year olds (94%) and non-smokers (93%). Around two thirds of smokers (67%) also viewed the health warnings as important in 2006.

2. *The graphic health warnings are very noticeable.*

There was also a high level of awareness of health information on tobacco packaging (91% in Wave 2 of the National Omnibus Survey and 93% in the 2006 NTS). Both surveys also showed a significant awareness of recent changes to the health warnings. When asked about the changes they had noticed, 89% (in both studies) mentioned the pictures/graphic health warnings.

The 2006 NTS survey showed encouraging levels of unaided recall for Set A of the graphic health warnings (as only Set A was predominantly available on retail shelves at the time of the survey). Two in ten respondents (19%) recalled (in an unaided sense) 'Smoking causes peripheral vascular disease' and 14% 'Smoking causes mouth and throat cancer'. Unaided recall of these two warnings was highest amongst smokers (25% and 16% respectively). It should also be noted that the higher recall of these two warnings may also be a result of their usage in media campaigns in 2006.

3. *Readership of the Health Warnings Has Improved.*

Results from both the 2005 and 2006 NTS indicate that the front of the pack was most likely to be read however, readership of the front fell significantly in 2006 (from 84% to 77%).

Compared to 2005, the 2006 NTS also showed an encouraging increase in readership (by all groups) of the health warnings on the back of the pack (from 55% to 61%), while smokers showed an increase in readership of the side of the pack as well (58% to 62%), suggesting that new graphic health warnings were not only gaining attention but being read.

4. *The Community Believes the Graphic Health Warnings are Effective.*

The 2006 NTS showed a number of encouraging significant changes, suggesting the graphic health warnings had greater attitudinal and behavioural impact than the text-only warnings:

- just under six in ten (57%) smokers agreed the warnings had improved their ‘knowledge of the health effects of smoking’, a slight but significant increase from 54% in 2005;
- three quarters (74%) of smokers and more than eight in ten ex-smokers (82%), non-smokers (84%), and recent quitters (89%) agreed the warnings ‘effectively communicate the health consequences of smoking’. Again, these all represented a significant increase from 2005. (Figures for the same statement in Wave 2 of the National Omnibus Survey were similar);
- around half the recent quitters said the warnings had helped them give up smoking (52%) and stay quit (54%), both of which were significant increases from 2005;
- there were also significant increases in the proportion of non-smokers (32% in 2005 to 39% in 2006), recent quitters (48% in 2005 to 69% in 2006), and smokers (48% in 2005 to 63% in 2006) who said the health warnings ‘would help prevent people from taking up smoking’;
- smokers (71% in 2005 to 81% in 2006), ex-smokers (81% in 2005 to 91% in 2006), and non-smokers (77% in 2005 to 85% in 2006) were more likely to believe ‘Smoking causes peripheral vascular disease’;

- smokers (77% in 2005 to 84% in 2006) and non-smokers (76% in 2005 to 80% in 2006) were more likely to believe ‘Smoking blocks arteries with fatty deposits’;
- non-smokers were more likely to believe that ‘Smoking causes mouth and throat cancer’ (95% in 2005 to 97% in 2006); and
- ex-smokers (90% in 2005 to 96% in 2006) were more likely to believe that ‘Smoking causes emphysema’.

There was one other measure in both the National Omnibus Survey and the NTS which suggests that the graphic health warnings had an impact on smokers. There was a significant increase in the proportion of smokers avoiding and/or concealing the health warnings on tobacco packaging, from less than one in ten in Wave 1 of the National Omnibus Survey and the 2005 NTS to 26% in both Wave 2 of the National Omnibus Survey and the 2006 NTS.

2. Introduction

Health warnings have been on tobacco product packaging in Australia since 1973. From 1 March 2006, most Australian-manufactured and imported tobacco product packaging must be printed with the new graphic health warnings. This timeframe provided an 18-month phase-in period for manufacturers and importers to comply with the Regulations, following their gazettal in August 2004.

As a result of the normal business flow of products, packaging with graphic health warnings and packaging with the former text-only health warnings were both available for retail at 1 March 2006. It took some months before packaging with the graphic health warnings were predominantly available on retail shelves.

There are fourteen graphic health warnings for cigarette packaging and five graphic health warnings for cigar packaging. The fourteen graphic health warnings for cigarette packaging are rotated in two sets of seven warnings every 12 months, with a four month transition period between sets, where either set may be printed on packaging. The rotation system is as follows:

- 1 March 2006 to 31 October 2006 – Set A only;
- 1 November 2006 to end February 2007 – transition period whereby both Set A and Set B may be printed;
- 1 March 2007 to 31 October 2007 – Set B only;
- 1 November 2007 to end February 2008 – transition period whereby both Set A and Set B may be printed; and
- 1 March 2008 to 31 October 2008 – Set A only.

As a result of normal business flow-through, both Set A and B may still be available on the retail shelf after the end of the transition period, as the dates apply to the printing of the packaging, not a deadline on the availability at the point of retail.

A National Campaign was developed by the Department of Health and Ageing to support the introduction of graphic health warnings on tobacco product packaging and to inform the public of the impending changes. The campaign incorporated a national television advertisement, which screened from mid-February to mid-March 2006, as well as newspaper, magazine and internet advertising.

Aside from the National Campaign, there were a number of other State and Territory based anti-smoking mass media campaigns that occurred throughout 2006, some of which included messages relating to the messages featured on the graphic health warnings, such as mouth cancer, peripheral vascular disease, and clogged arteries.

These timing issues and mass media campaigns are important to note when interpreting the results contained within this report. What was available on the retail shelf at the time of the data collection differed for each survey (i.e., text-only, both text-only and graphic health warnings, and what stage of the rotation system was in effect at the time).

The report examines findings from a number of studies on smoking conducted for the Department. However, these studies were not primarily designed to evaluate the graphic health warnings, so analysis is limited to those questions most pertinent to an evaluation of the graphic health warnings.

The fundamental purpose of this report is to analyse and assess the existing Departmental quantitative survey data in order to evaluate community reactions to the tobacco pack health warnings. In evaluating community reactions we have been guided by the Trade Practices (Consumer Product Information Standards) (Tobacco) Regulations 2004 (the Regulations). According to the Regulations the purpose of the graphic health warnings is “*to increase consumer knowledge of the health effects relating to smoking, to encourage the cessation of smoking, and to discourage uptake or relapse*” (p1)¹.

¹ Trade Practices (Consumer Product Information Standards) (Tobacco) Regulations 2004. Statutory Rules 2004 No. 264 as amended. Prepared by the Office of Legislative Drafting and Publishing, Attorney-General’s Department, Canberra, 2007.

The surveys were conducted prior to the introduction of the new graphic health warnings, and during the initial stages of that introduction.

The studies analysed for this report are as follows:

- The National Tobacco Survey (NTS) conducted in November/December 2005, prior to the introduction of the graphic health warnings;
- The NTS conducted in November/December 2006, approximately eight months after the introduction of graphic health warnings and during the transition period whereby both Set A and Set B of the graphic health warnings could be printed, however only Set A was predominantly available on retail shelves;
- A National Omnibus Survey, conducted in March 2006, immediately following the National Health Warnings Campaign (NHWC) which primarily targeted smokers to notify them of the introduction of new graphic health warnings. This survey was conducted at a time in which packaging with graphic health warnings and packaging with the former text-only health warnings were both available for retail, although packs with text-only warnings were predominantly on retail shelves; and
- A National Omnibus Survey conducted in July 2006, four months after the NHWC and the introduction of the graphic health warnings. As such, both packaging with text-only warnings and packaging with graphic health warnings were available for retail, with the later being more prominent than at the time of the March survey.

3. Survey Methodologies

The analysis in this report is based on data from two waves of the NTS and two waves of National Omnibus Survey used for the NHWC in 2006.

3.1 The National Tobacco Survey

Commencing in 1997, the NTS is a Departmental survey undertaken annually with smokers, ex-smokers and non-smokers. The NTS provides data on smoking prevalence, cigarette consumption, attitudes to smoking, use of smoking cessation therapies, policy issues (such as health warnings), as well as, campaign effectiveness.

The 2005 NTS consisted of 3170 telephone interviews, with 16-69 year olds, and was conducted from 31 October to 14 December 2005, prior to the introduction of the graphic health warnings.

The 2006 NTS consisted of 2802 telephone interviews, with 15-69 year olds, and was conducted from 10 November to 21 December 2006, approximately eight months after the introduction of the graphic health warnings.

The surveys employed a quota-based sample of 75% smokers amongst those aged 18 years and over and the sample was stratified by age. An equal proportion of evaluation interviews were conducted in each State/Territory and a 60/40 split between the state capital and the rest of the state was applied.

The Social Research Centre conducted both of these studies. Further detail on the methodology for the NTS is available in a Technical Report that can be obtained from the Department.

3.1.1 Issues Involved in Comparing 2005 and 2006 NTS Data

In 2006 the methodology of the NTS survey was changed. This meant that strictly speaking the basis for tracking comparison was lost. The main amendment was a change in the age brackets covered. Changes as noted by The Social Research Centre (2007) are provided below:

- A switch from an Electronic White Pages (EWP) sample to a Random Digit Dialling (RDD) sample;
- The implementation of a new quota structure to enable the survey to evaluate the National Tobacco Youth campaign²; and
- One evaluation interview per household whereas, previously allowance was made for up to three per household.

While The Social Research Centre advised against comparing the 2005 and 2006 data, we believe we can draw some useful comparisons provided the data is post weighted appropriately. This was done and has only small limitations for our purposes. The procedure used for the weighting and the limitations are appended in the detailed methodological section.

Note: due to sample size restrictions the analysis of the NTS data in this report has been restricted to the total sample, age, gender, and smoking categories. The unweighted sample breakdown for the 2005 and 2006 studies is shown on page 10.

3.2 NHWC Evaluation via National Omnibus Survey

Wave 1 and Wave 2 of the National Omnibus Survey consisted of a series of n=1001 telephone interviews conducted by Woolcott Research. Wave 1 was conducted from 10 to 12 March 2006, which was immediately following campaign activity, and Wave 2 was conducted from 14 to 16 July 2006.

Due to the sample sizes of the two waves of National Omnibus Survey we restricted analysis to the total sample and differences between age groups (excluding 16-17 year olds as there were only n=28 in each wave), gender, and smoking behaviour.

² Prior to 2006 the focus of the sample was 18-40 year olds reflecting the target audience for the National Tobacco Campaign and in 2006 the focus of the sample was 12-24 year olds to reflect the audience of the National Tobacco Youth Campaign.

The unweighted sample breakdowns are detailed in Table 1 below:

Table 1: Sample Characteristics (unweighted)

	NTS		National Omnibus Survey	
	2005 16-69 yr old	2006 15-69 yr olds	Wave 1 16+ yr olds	Wave 2 16+ yr olds
	%	%	%	%
Gender				
Male	45	45	46	46
Female	55	55	54	54
Age				
16-17 years	13	23*	3	3
18-24 years	19	23	9	9
25-40 years	55	20	29	25
41-60 years	10	25	37	39
61-69 years	3	9	23	23
Smoking Status				
Smoker ³	58	52	23	20
Ex-smoker ⁴	14	13	22	22
Non-smoker ⁵	28	35	56	58
Base	3170	2601	1001	1001

*Note: In 2006 this age bracket was actually 15-17 years, however, the number of 15 year olds was minimal. Further explanation is appended in the detailed methodological section.

3.3 Interpreting This Report

In looking at the NTS and National Omnibus Survey data it quickly became apparent that we were unable to compare the data across all four studies but instead, had to limit the analysis to making direct comparisons within the two NTS studies and within the two National Omnibus Surveys.

Firstly, we were limited in our ability to compare across the two survey types as they used different methodologies for establishing the various smoking categories. The National Omnibus Surveys used a simple classification question (*Do you smoke daily, at least weekly, less often than weekly, not any more but used to, or not at all?*); whereas, the NTS surveys used a more complex construction based on answers across a number of questions. Secondly, the surveys had a different sample make-up in regards to age and smoking status.

³ Smokers are defined as smoking daily, weekly or less often. The NTS smoker category did not include 'less often'.

⁴ Ex-smokers are defined as those who no longer smoke. In the NTS those who smoke 'less often than weekly' are classified as ex-smokers.

⁵ Non-smokers are defined as never smoked and in the NTS they include those who quit smoking more than 12 months ago.

However, the Discussion section of this report does make comparisons of the general trends observed across the two survey types in order to aid the reader in drawing some conclusions about the impact of the health warnings at the time of these studies. Any direct comparisons between the NTS and National Omnibus Surveys should however be treated with caution.

Significant tests were conducted on weighted data for all surveys, in order to establish the existence of significant differences. The z test was used to establish differences at the 95% confidence level. A single * is used to indicate a significant difference between waves and a single ^ is used to indicate a significant difference between segments (e.g.: males vs females) or smoker categories within a wave. In addition, a Δ is used when a figure is less than 0.5%. Throughout this report only significant differences are reported, unless otherwise stated.

4. Results for the NTS

4.1 Importance of Health Warnings

All respondents were asked how important it was that the Government has health warnings on packs of tobacco and cigarettes. In both the 2005 and 2006 studies, three quarters of respondents (77% and 75% respectively) indicated that the health warnings were important. In both studies, smokers were less likely than ex-smokers and non-smokers to believe the health warnings were ‘important’, while non-smokers were more likely than ex-smokers to agree that it was ‘important’ (Table 2).

Interestingly in 2006, following the introduction of the graphic health warnings there was a slight but significant decrease in the proportion of smokers who considered the health warnings ‘important’.

Table 2: Importance of Health Warnings (NTS)

Importance	Total		Smokers		Ex-Smokers		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Very/Quite Important	77	75	71 [^]	67 ^{^*}	86	87	91 [^]	93 [^]
BASE: All Respondents	3170	2601	1806	1352	444	331	882	906

As shown in Table 3, females (77%) were more likely than males (73%) to consider the health warnings ‘important’ in 2006. Interestingly, there was a significant decrease in the proportion of males in 2006 who considered the health warnings ‘important’.

Table 3: Importance of Health Information by Gender (NTS)

Importance	Males		Females	
	2005 %	2006 %	2005 %	2006 %
Very/Quite Important	77	73 [*]	78	77 [^]
BASE: All Respondents	1440	1159	1730	1442

In 2006 there was a significant increase in the proportion of 16-17 year olds (94%) who considered the health warnings ‘important’ (Table 4). Further, respondents aged 16-17 years showed the highest level of support for the warnings - in both 2005 and 2006 they were more likely than older respondents to consider the health warnings ‘important’.

In 2005, 18-24 year olds (82%) were more likely than 41-60 year olds (75%) and 61-69 year olds (73%) to consider the health warnings ‘important’, and in 2006 they were more likely (79%) than 41-60 year olds (70%) to consider the health warnings ‘important’.

Table 4: Importance of Health Information by Age (NTS)

Importance	16-17 yrs		18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Very/Quite Important	90 [^]	94 ^{^*}	82 [^]	79 [^]	79	76	75	70	73	74
BASE: All Respondents	406	600	606	600	1729	512	316	660	92	229

4.2 Awareness of Health Information on Tobacco Packaging

In both the 2005 and 2006 NTS, all respondents were asked whether they were aware of any health messages or information on tobacco or cigarette packs. Awareness of the health warnings was high in both studies, with smokers (95%) showing higher awareness in comparison to ex-smokers (92%) and non-smokers (86%) in 2006 (Table 5). In 2005, smokers (96%) also showed higher awareness than ex-smokers (92%) and non-smokers (91%). Non-smokers (86%) were also less likely than ex-smokers (92%) to be aware of the health messages on tobacco packaging in 2006.

There was also a slight but significant decrease in awareness amongst non-smokers from the 2005 (91%) to 2006 (86%) study.

Table 5: Awareness of Health Information (NTS)

Aware	Total		Smokers		Ex-Smokers		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Yes	95	93	96 [^]	95 [^]	92	92	91	86 ^{^*}
BASE: All Respondents	3170	2601	1806	1352	444	331	882	906

There were no significant differences between males and females, although males showed a slight but significant decrease in their awareness in 2006, as shown in Table 6 below.

Table 6: Awareness of Health Information by Gender (NTS)

Aware	Males		Females	
	2005 %	2006 %	2005 %	2006 %
Yes	95	92*	94	93
BASE: All Respondents	1446	1159	1730	1442

As shown in Table 7, the key differences according to age were as follows:

- in 2006, 61-69 year olds (88%) had lower awareness than 18-24 year olds (93%), 25-40 year olds (95%) and 41-60 year olds (93%);
- 16-17 year olds had lower awareness in 2005 (88%) and in 2006 (77%) than all other age groups. This age group (16-17 years) also showed a significant decrease in awareness in 2006 (88% to 77%); and
- in 2005, 25-40 year olds (96%) had higher awareness than 16-17 year olds (88%) and 18-24 year olds (94%).

Table 7: Awareness of Health Information by Age (NTS)

Aware	16-17 yrs		18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Yes	88^	77^*	94	93	96^	95	95	93	91	88^
BASE: All Respondents	406	600	606	600	1729	512	316	660	92	229

Respondents who indicated they were aware of the health warnings on tobacco packaging were asked whether they had ever read any of the information on the front, back, and side of the packs. Results from both 2005 and 2006 indicate that the front of the pack was most likely to be read, followed by the back of the pack, then the side of the pack (as shown in Table 8).

In the 2006 NTS, there was a significant increase in readership of the back of the pack amongst the total sample (61%) and smokers (74%). Amongst smokers (62%) there was also a significant increase in readership of the side of the pack.

Interestingly, amongst the total sample, smokers, and non-smokers, readership of the front of the pack fell significantly in 2006. Ex-smokers' readership of the front of the pack also decreased, however, the change wasn't significant. Readership of the side of the pack also fell significantly amongst the ex-smoker and non-smoker segments.

In an overall sense, smokers were more likely than both ex-smokers and non-smokers to have read the health warnings, whilst non-smokers were also less likely than ex-smokers to have read the health warnings.

Table 8: Readership of Health Warnings (NTS)

Read Health Messages	Total		Smokers		Ex-Smokers		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Front	84	77*	90 [^]	84 ^{^*}	78	73	69 [^]	51 ^{^*}
Side	51	52	58 [^]	62 ^{^*}	51	44*	30 [^]	21 ^{^*}
Back	55	61*	64 [^]	74 ^{^*}	53	49	27 [^]	26 [^]
BASE: Respondents Aware of Health Information	2996	2411	1739	1280	410	306	800	776

Both males and females demonstrated a significant increase in readership of the back of the pack in 2006, with females showing the larger increase in readership (Table 9). However, there was also a significant decrease in readership of the front of the pack by both males and females. Whilst males were more likely to have read any part of the pack in 2005, readership of the pack was similar for both genders in 2006, although males were more likely to have read the side.

Table 9: Readership of Health Warnings by Gender (NTS)

Read Health Messages	Males		Females	
	2005 %	2006 %	2005 %	2006 %
Front	85 [^]	77*	82	77*
Side	54 [^]	54 [^]	48	49
Back	57 [^]	62*	53	61*
BASE: Respondents Aware of Health Information	1375	1071	1626	1340

Each of the 18-24, 25-40, and 41-60 year age groups showed a significant increase in readership of the health warnings on the back of tobacco packaging in 2006 (Table 10). However, they also showed a significant decrease in readership of the warnings on the front of the pack, as did the 16-17 year olds and 61-69 year olds. The 16-17 year olds also showed a significant decrease in readership of the side of the pack.

A comparison across age groups revealed a general decrease in readership as age increased, with the exception of the 16-17 year olds, who had lower readership of warnings than all of the other age groups. More specifically, age group comparisons revealed the following key differences:

- in 2005 and 2006, 18-24 year olds had higher readership of all warnings, with the exception of 25-40 year olds in relation to the warnings on the front of the pack;
- the 25-40 year olds, were, in turn, more likely to read the warnings on the front, side and back than the 41-60 year olds and 61-69 year olds, in both 2005 and 2006; and
- the 41-60 year olds were more likely to read the warnings on the front, side, and back than were 61-69 year olds; however, only the 2006 figures were significant as the 2005 base for 61-69 year olds was very small.

Table 10: Readership of Health Warnings by Age (NTS)

Read Health Messages	16-17 yrs		18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Front	66 [^]	53 ^{^*}	90 [^]	83 ^{^*}	90 [^]	83 ^{^*}	80	75 ^{^*}	73	62 [*]
Side	29 [^]	21 ^{^*}	63 [^]	64 [^]	56 [^]	59 [^]	46	47 [^]	46	38
Back	33 [^]	33 [^]	68 [^]	73 ^{^*}	58 [^]	66 ^{^*}	51	58 [*]	49	47
BASE: Respondents Aware of Health Information	356	462	567	557	1656	485	301	617	84	202

4.3 Awareness of Changes to Pack Warnings

Respondents who were aware of health information on tobacco packaging were also asked whether they had noticed any changes to the warnings in the last 12 months. The 2006 study, conducted eight to nine months after the introduction of the graphic health warnings, showed a significant increase in awareness of the changes to the warnings (Table 11). In fact, awareness in 2006 (82%) was more than four times the level in 2005 (20%), although no changes were made to the warnings in the 12 months prior to the 2005 NTS. While smokers (89%) were significantly more likely to have noticed the changes than ex-smokers (80%) they were almost one and a half times more likely to notice changes than were non-smokers (61%). Non-smokers were significantly less likely to have noticed the changes than ex-smokers in 2006.

Table 11: Awareness of Changes (NTS)

Aware	Total		Smokers		Ex-Smokers		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Yes	20	82*	22	89 [^] *	19	80*	15	61 [^] *
BASE: Respondents Aware of Health Information	2996	2411	1739	1280	410	306	800	776

Both males and females showed a four fold increase in awareness of changes, with around eight in ten (82% and 83% respectively) aware of changes to the health warnings in 2006.

Table 12: Awareness of Changes by Gender (NTS)

Aware	Males		Females	
	2005 %	2006 %	2005 %	2006 %
Yes	20	82*	20	83*
BASE: Respondents Aware of Health Information	1375	1071	1626	1340

Each age group also showed a significant increase in awareness of changes to the health warnings in 2006. As can be seen in Table 13, the increases in awareness varied from a two and a half times increase for the 61-69 year olds (26% to 67%) through to a six fold increase for the 16-17 year olds (13% to 77%).

In 2006, the 18-24 year olds (87%) and the 25-40 year olds (87%) had higher awareness than all other age groups, while the 61-69 year olds (67%) had a lower awareness compared to all other age groups. In 2005, the 61-69 year olds (26%) and the 25-40 year olds (24%) had higher levels of awareness, although as mentioned previously, there were no changes to the warnings in the 12 months prior to the 2005 NTS.

Table 13: Awareness of Changes by Age (NTS)

Aware	16-17 yrs		18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Yes	13	77*	17	87^*	24^	87^*	17	81*	26^	67^*
BASE: Respondents Aware of Health Information	356	462	567	557	1656	485	301	607	84	202

Those who had noticed changes to the health warnings were asked about the specific changes they had noticed. As demonstrated in Table 14, the key changes that were noticed by all respondents in 2006, following the introduction of graphic health warnings, were the graphic images (89%), the size of the warnings (13%), and the increase in the amount of information (10%).

Interestingly, ex-smokers were more likely to mention the pictures/graphics (95%) and less likely to mention the increased information (4%) than both non-smokers (87% and 9% respectively) and smokers (87% and 12% respectively). Non-smokers (16%) were more likely than ex-smokers (11%) to suggest that the health warnings cover more of the package.

Table 14: Changes Noticed to Health Warnings (NTS)

Changes	Total	Smokers	Ex-Smokers	Non-Smokers
	2006 %	2006 %	2006 %	2006 %
Pictures/graphics	89	87	95^	87
Cover more of the package	13	13	11	16^
More information	10	12	4^	9
BASE: Respondents Aware of Changes	1977	1134	243	477

As shown in Table 15, females (92%) were more likely than males (85%) to have mentioned the pictures/graphics.

Table 15: Changes Noticed to Health Warnings by Gender (NTS)

Changes	Males	Females
	2006 %	2006 %
Pictures/graphics	85	92 [^]
Cover more of the package	14	12
More information	11	9
BASE: Respondents Aware of Changes	875	1115

Those aged 61-69 years were less likely to have mentioned the pictures/graphics (77%) and the increased information (5%) than each of the younger age groups (Table 16). Those aged 18-24 years (92%) and those aged 25-40 years (91%) were more likely than the 41-60 year olds (87%) to mention the pictures/graphics. The 18-24 year age group were also more likely to mention the pictures/graphics than the 16-17 year olds (88%).

Table 16: Changes Noticed to Health Warnings by Age (NTS)

Changes	16-17 yrs	18-24 yrs	25-40 yrs	41-60 yrs	61-69 yrs
	2006 %	2006 %	2006 %	2006 %	2006 %
Pictures/graphics	88	92 [^]	91 [^]	87	77 [^]
Cover more of the package	14	15	15	12	11
More information	13	13	10	10	5 [^]
BASE: Respondents Aware of Changes	358	486	424	489	135

4.4 Unaided Recall of Health Warnings

Respondents aware of the health information on tobacco packaging were also asked which messages they had read or recalled. In reviewing the results for this question it is important to remember that the 2005 NTS was conducted prior to the introduction of graphic health warnings, whilst the 2006 NTS was conducted during the first transition period, when both Set A and Set B could be printed. In that sense, only the first set of seven (7) graphic health warnings (Set A) had been available for retail at the time of the 2006 NTS.

With this in mind, the findings were very positive. Unaided recall of each of the graphic health warnings (in Set A) increased significantly amongst the total sample, smokers, and ex-smokers (Table 17 over the page). Even amongst non-smokers, unaided recall of all but two of the graphic health warnings ('Smoking causes emphysema' and 'Quitting will improve your health') increased significantly.

In addition, it is worth noting that in the 2006 NTS, unaided recall was greatest for ‘Smoking causes peripheral vascular disease’ (19%) and ‘Smoking causes mouth and throat cancer’ (14%), particularly amongst smokers (25% and 16% respectively). Smokers were more likely than ex-smokers and non-smokers to recall (unaided) most of the graphic health warnings: in fact, with the exception of ‘Smoking causes mouth and throat cancer’, smokers were between two and four times more likely to recall the graphic health warnings.

With the increase in unaided recall of the graphic health warnings there was a corresponding decrease in recall of the text-only health warnings. The majority of these decreases in recall were significant (Table 17).

Table 17: Unaided Recall of Health Warnings (NTS)

Message Recalled	Total		Smokers		Ex-Smokers		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Text-Only Health Warnings								
Smoking when pregnant harms your baby	44	19*	51	17*	32	22*	28	21*
Smoking causes lung cancer	38	20*	41	17*	33	22*	31	28
Your smoking can harm others	25	8*	30	9*	25	10*	10	6*
Smoking kills	28	12*	28	11*	33	13	23	14*
Smoking causes heart disease	23	10*	27	11*	21	11*	11	7*
Smoking is addictive	7	2*	10	2*	2	2	2	1
Smoking is a health hazard	9	7*	6	4*	13	11	15	12*
Smoking damages your lungs	2	4*	3	5*	1	2	2	3
Smoking reduces your fitness	Δ	1	Δ	1	1	Δ	Δ	-
Set A Graphic Health Warnings – After 1 March 2006								
Smoking causes peripheral vascular disease	Δ	19*	Δ	25*	-	12*	Δ	5*
Smoking causes mouth and throat cancer	1	14*	1	16*	-	13*	Δ	7*
Smoking causes emphysema	1	9*	Δ	12*	1	3*	1	1
Smoking clogs your arteries	Δ	8*	Δ	11*	-	3*	Δ	1*
Don't let children breathe your smoke	Δ	6*	Δ	8*	-	2*	Δ	1*
Smoking – a leading cause of death	Δ	5*	Δ	6*	-	2*	Δ	1*
Quitting will improve your health	Δ	2*	Δ	2*	-	1*	-	Δ
BASE: Respondents Aware of Health Information	2996	2411	1739	1280	410	306	800	776

As can be seen in Table 18 below, an analysis of recall of the graphic health warnings in 2006 by gender revealed the following key differences:

- females were slightly, but significantly more likely to recall the ‘Smoking clogs your arteries’ health warning (9% vs 7% of males);
- females were also slightly, but significantly more likely to recall the ‘Don’t let children breathe your smoke’ (7% vs 4% of males) health warning; and
- males were slightly, but significantly more likely to recall the ‘Smoking causes emphysema’ (10% vs 8% of females) health warning.

Table 18: Recall of Health Warnings by Gender (NTS)

Message Recalled	Males	Females
	2006 %	2006 %
Set A Graphic Health Warnings – After 1 March 2006		
Smoking causes peripheral vascular disease	19	20
Smoking causes mouth and throat cancer	14	13
Smoking causes emphysema	10 [^]	8
Smoking clogs your arteries	7	9 [^]
Don’t let children breathe your smoke	4	7 [^]
Smoking – a leading cause of death	5	4
Quitting will improve your health	1	2
BASE: Respondents Aware of Health Information	1071	1340

An analysis of recall of the graphic health warnings in 2006 by age revealed the following significant differences (as shown in Table 19 on page 22):

- the 16-17 years olds were less likely than all other age groups to recall the ‘peripheral vascular disease’ (9%), the ‘mouth cancer’ (8%), the ‘emphysema’ (2%), and ‘clogs your arteries’ (2%) health warnings. They were also less likely than all but the 61-69 years olds to recall ‘Don’t let children breathe your smoke’ (2%) and less likely than then 18-24 year olds (7%) and the 25-40 year olds (6%) to recall the ‘Leading cause of death’ warning (2%);

- those aged 61-69 years were less likely than those aged 18-24 years (21%) to recall the ‘peripheral vascular disease’ (15%) warning, less likely than the 41-60 year olds (10%) to recall the ‘emphysema’ warning (10%), and less likely than both the 18-24 year olds (7%) and the 25-40 year olds (6%) to recall ‘Smoking – a leading cause of death’ (1%);
- the 41-60 year olds (3%) were also less likely than both the 18-24 year olds (7%) and the 25-40 year olds (6%) to recall the ‘leading cause of death’ warning; and
- those aged 18-24 years (6%) were less likely than the 25-40 year olds (9%) to recall ‘Smoking clogs your arteries’.

Table 19: Recall of Health Warnings by Age (NTS)

Read Health Messages	16-17 yrs	18-24 yrs	25-40 yrs	41-60 yrs	61-69 yrs
	2006 %	2006 %	2006 %	2006 %	2006 %
Set A Graphic Health Warnings – After 1 March 2006					
Smoking causes peripheral vascular disease	9 [^]	21	20	19	15 [^]
Smoking causes mouth and throat cancer	8 [^]	12	14	15	13
Smoking causes emphysema	2 [^]	8	9	10	6 [^]
Smoking clogs your arteries	2 [^]	6 [^]	9	8	9
Don’t let children breathe your smoke	2 [^]	6	7	4	4
Smoking – a leading cause of death	2	7	6	3 [^]	1 [^]
Quitting will improve your health	Δ	1	2	2	1
BASE: Respondents Aware of Health Information	462	557	485	607	202

4.5 Most Effective Warning

Respondents who were aware of the health warnings on tobacco packaging were asked to indicate which warning they felt was most effective at discouraging people from smoking. As the graphic health warnings are the focus of this report and they did not exist at the time of the 2005 NTS, we have limited our analysis and discussion to the 2006 NTS and the findings relating to Set A of the graphic health warnings. Set B had not been in circulation at the time of the 2006 NTS.

In 2006, two of the more visually graphic health warnings were perceived as the most effective, with around three in ten (29%) respondents nominating ‘Smoking causes mouth and throat cancer’ as the most effective and one in six (16%) nominating ‘Smoking causes peripheral vascular disease’ as the most effective (Table 20). No other warning was mentioned by more than 3% of the total sample.

Smokers were around twice as likely as both ex-smokers and non-smokers to have nominated ‘peripheral vascular disease’, and ‘clogs your arteries’, and three times as likely to nominate ‘emphysema’ as the most effective. Non-smokers on the other hand, were around a third less likely to nominate ‘Smoking causes mouth and throat cancer’.

Table 20: Most Effective Warning (NTS)

Most Effective	Total	Smokers	Ex-smokers	Non-smokers
	2006 %	2006 %	2006 %	2006 %
Set A Graphic Health Warnings – After 1 March 2006				
Smoking causes mouth and throat cancer	29	32	32	23 [^]
Smoking causes peripheral vascular disease	16	20 [^]	11	11
Smoking causes emphysema	2	3 [^]	1	1
Smoking clogs your arteries	3	4 [^]	2	2
Don't let children breathe your smoke	1	2	1	1
Smoking – a leading cause of death	1	1	2	1
Quitting will improve your health	Δ	Δ	-	Δ
None/All ineffective	9	13	8	3
BASE: Respondents Aware of Health Information	2411	1280	306	776

There were no significant differences according to gender in regards to perceptions of the most effective graphic health warning.

In terms of perceived effectiveness of the graphic health warnings, the key differences between age groups (Table 21 over the page) were as follows:

- those aged 61-69 years were less likely to nominate the ‘peripheral vascular disease’ warning (8%), except in comparison to the 41-60 year olds, and less likely than the 18-24 year olds (31%) and 41-60 year olds (31%) to nominate ‘Smoking causes mouth and throat cancer’ (24%); and

- the 16-17 year olds (2%) were less likely than both the 18-24 year olds (4%) and the 25-40 year olds (4%) to nominate ‘Smoking clogs your arteries’ and less likely than the 61-69 year olds (3%) to nominate ‘Smoking causes emphysema’ (1%).

Table 21: Most Effective Warning by Age (NTS)

Most Effective	16-17 yrs	18-24 yrs	25-40 yrs	41-60 yrs	61-69 yrs
	2006 %	2006 %	2006 %	2006 %	2006 %
Set A Graphic Health Warnings – After 1 March 2006					
Smoking causes mouth and throat cancer	26	31	29	31	24 [^]
Smoking causes peripheral vascular disease	16	19	19	12	8 [^]
Smoking causes emphysema	1 [^]	2	2	2	3
Smoking clogs your arteries	2 [^]	4	4	3	3
Don't let children breathe your smoke	1	2	2	1	2
Smoking – a leading cause of death	1	2	1	1	1
Quitting will improve your health	-	Δ	-	-	1
BASE: Respondents Aware of Health Information	462	557	485	607	202

4.6 Perceived Impact of Health Warnings

Respondents were asked about the impact of the tobacco pack health warnings on both their attitudes and behaviours via a series of attitudinal statements. As the statements varied in their relevance to different respondents, we have analysed responses according to the following segments: smokers, recent quitters, ex-smokers (excluding recent quitters) and non-smokers.

In 2006, three quarters (74%) of smokers suggested that the graphic health warnings were effective at communicating ‘the health consequences of smoking’, 63% suggested the warnings ‘would help prevent people from taking up smoking’, and 57% said they had improved their ‘knowledge of the health effects of smoking’ (Table 22 over the page). These were all significant increases from 2005, suggesting the graphic health warnings had greater attitudinal impact than the text based warnings.

There was also a slight but significant decrease in the proportion who suggested the warnings had helped them smoke less.

Table 22a: Perceived Impact on Smokers (NTS)

Impact of Health Warnings	Smokers	
	2005 %	2006 %
Effectively communicate the health consequences of smoking	70	74*
Would help prevent people from taking up smoking	48	63*
Improved your knowledge of the health effects of smoking	54	57*
Made you think about quitting	54	54
Raised your concerns about smoking	53	54
Helped you smoke less	30	27*
Helped you give up smoking ⁶	19	17
BASE: All Respondents	1806	1352

In order to further evaluate the impact of the graphic health warnings on smokers we analysed smokers’ responses according to their quitting contemplation status, which was defined as follows:

- Committed smokers – smokers not seriously considering quitting in the next 6 months;
- Pre-contemplators – smokers seriously considering smoking in the next 6 months, but not planning to do so within the next 30 days; and
- Confirmed contemplators – smokers planning to quit in the next 30 days.

As shown in Table 22b over the page, analysis of smokers according to their contemplation status revealed some encouraging findings in 2006:

- around two thirds or more pre-contemplators and confirmed contemplators agreed that the health warnings:
 - were effective at communicating ‘the health consequences of smoking’ (both 78%),
 - ‘would help prevent people from taking up smoking’ (70% and 66% respectively),
 - improved their ‘knowledge of the health effects of smoking’ (64% and 65% respectively),
 - made them ‘think about quitting’ (both 65%), and
 - raised their ‘concerns about smoking’ (65% and 63% respectively);

⁶ This statement was only asked of smokers who had tried to quit (n=1481 in 2005, n=1108 in 2006).

- significant increases in pre-contemplators' agreement with many of these statements about the health warnings' impact, whilst confirmed contemplators had a significant increase in regards to 'improved knowledge of the health effects'; and
- non-contemplators showed a significant increase in their belief that the warnings 'would help prevent people from taking up smoking' (from 40% to 55%).

Interestingly non-contemplators showed a small but significant decrease in their agreement that the warnings had helped them 'smoke less' (13%) or 'helped them give up' (6%), while confirmed contemplators' agreement that the warnings helped them 'give up' (30%) also decreased slightly, but significantly.

A comparison between non-contemplators, pre-contemplators, and confirmed contemplators revealed that in an overall sense, non-contemplators were less likely than the others to believe the graphic health warnings had an impact. The other key and important difference between these groups was confirmed contemplators' greater likelihood to agree that the health warnings had helped them 'smoke less' and 'give up'.

Table 22b: Perceived Impact by Contemplation Status (NTS)

Impact of Health Warnings	Non-contemplators		Pre-contemplators		Confirmed contemplators	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Effectively communicate the health consequences of smoking	65 [^]	68 [^]	73	78*	75	78
Would help prevent people from taking up smoking	40 [^]	55 ^{^*}	56	70*	52	66*
Improved your knowledge of the health effects of smoking	50 [^]	46 [^]	58	64*	56	65*
Made you think about quitting	39 [^]	36 [^]	61	65	66	65
Raised your concerns about smoking	41 [^]	37 [^]	60	65*	64	63
Helped you smoke less	20 [^]	13 ^{^*}	32	30	42 [^]	41 [^]
Helped you give up smoking ⁷	10 [^]	6 ^{^*}	17	19	37 [^]	30 ^{^*}
BASE: Respondents Aware of Health Information	735	558	725	515	346	279

⁷ This statement was only asked of smokers who had tried to quit - Non-contemplators (n=530 in 2005, n=396 in 2006); Pre-contemplators (n=642 in 2005, n=451 in 2006); Confirmed contemplators (n=339 in 2005, n=256 in 2006).

As can be seen in Table 23 below, the results for recent quitters in 2006 were equally encouraging:

- nine in ten (89%) said the warnings were effective at communicating ‘the health consequences of smoking’;
- seven in ten (69%) suggested the warnings ‘would help prevent people from taking up smoking’;
- around half (54%) said they had improved their ‘knowledge of the health effects of smoking’;
- in addition, around half of recent quitters also suggested that the warnings helped them give up smoking (52%) and stay quit (54%).

Each of the above figures represents a significant increase from 2005, suggesting the graphic health warnings had greater attitudinal and behavioural impact than the text-only warnings.

In 2006, 84% of non-smokers and 82% of ex-smokers (both significant increases from 2005) believed the warnings ‘effectively communicate the health consequences of smoking’, while four in ten (39%) non-smokers and one quarter (26%) of ex-smokers believed the warnings ‘would help prevent people from taking up smoking’ (Table 23). The non-smokers figure of 39% represents a significant increase from 32% in 2005.

Table 23: Perceived Impact of Health Warnings (NTS)

Impact of Health Warnings	Recent Quitters ⁸		Ex-Smokers ⁹		Non-Smokers	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Effectively communicate the health consequences of smoking	63	89*	68	82*	71	84*
Would help prevent people from taking up smoking	48	69*	25	26	32	39*
Improved your knowledge of the health effects of smoking	32	54*	NA ¹⁰	NA	NA	NA
Helped you give up smoking	36	52*	NA	NA	NA	NA
Helped you stay quit	32	54*	NA	NA	NA	NA
BASE: Respondents Aware of Health Information	225	175	216	156	800	776

⁸ This question was asked of all Recent Quitters (not just those aware of health information).

⁹ For this question, ex-smokers excluded recent quitters.

¹⁰ Ex-smokers and Non-smokers were not asked the statements where NA is used.

4.7 Beliefs about the Health Effects of Smoking

In the NTS all respondents were also asked to indicate whether they believed a number of statements about the health effects of smoking were true or not. As some of these statements gave respondents the option of saying ‘definitely true’, ‘probably true’, ‘false’ and ‘can’t say’; while others, simply had ‘true’, ‘false’, ‘can’t say’, we have concentrated on the overall proportion agreeing that each statement was ‘true’.

Further, only those statements relating to Set A of the graphic warnings have been reported here as only Set A was predominantly available on retail shelves at the time of the 2006 NTS.

In an overall sense, Table 24 (over the page) shows that in 2006 more than nine in ten respondents believed that ‘Smoking causes emphysema’ (92%), ‘Smoking causes mouth and throat cancer’ (92%), ‘Smoking blocks arteries with fatty deposits’ (85%), and ‘Smoking causes peripheral vascular disease’ (83%), with the figures for the latter two statements representing a significant increase from 2005.

Analysis of the different smoker segments revealed the following significant findings in relation to differences between 2005 and 2006:

- an increase in the proportion of smokers (71% in 2005 to 81% in 2006), ex-smokers (81% to 91%), and non-smokers (77% to 85%) who believed that ‘Smoking causes peripheral vascular disease’, which was the most recalled graphic health warning;
- an increase in the proportion of smokers (77% to 84%) and non-smokers (76% to 80%) who believed that ‘Smoking blocks arteries with fatty deposits’;
- an increase in the proportion of non-smokers (95% to 97%) who believed that ‘Smoking causes mouth and throat cancer’; and
- an increase in the proportion of ex-smokers (90% to 96%) who believed that ‘Smoking causes emphysema’.

There were also a number of significant differences between the smoker segments:

- ex-smokers (96%) were more likely than smokers (92%) and non-smokers (89%) to believe the warning about emphysema in 2006;
- in both 2005 and 2006 ex-smokers (81% and 91% respectively) were more likely than smokers (71% and 81% respectively) and non-smokers (77% and 85% respectively) to believe the warning about peripheral vascular disease;
- smokers were less likely than non-smokers to believe the warning about peripheral vascular disease in both 2005 and 2006;
- in both 2005 and 2006, smokers (88% and 89% respectively) were less likely than ex-smokers (96% and 98% respectively) and non-smokers (95% and 97% respectively) to believe that ‘Smoking causes mouth cancer’; and
- ex-smokers (81%) in 2005 were more likely than smokers (77%) and non-smokers (76%) to believe that ‘Smoking blocks arteries with fatty deposits’.

Table 24: Beliefs about the Health Effects of Smoking (NTS)

Health Effects	Total		Smokers		Ex-Smokers		Non-Smokers	
	% True		% True		% True		% True	
	2005	2006	2005	2006	2005	2006	2005	2006
Smoking causes emphysema	91	92	91	92	90	96 ^{^*}	90	89
Smoking causes mouth and throat cancer	91	92	88 [^]	89 [^]	96	98	95	97 [*]
Smoking blocks arteries with fatty deposits	78	85 [*]	77	84 [*]	81 [^]	84	76	80 [*]
Smoking causes peripheral vascular disease, also known as gangrene	74	83 [*]	71 [^]	81 ^{^*}	81 [^]	91 ^{^*}	77	85 [*]
BASE: All Respondents	3170	2601	1806	1352	444	331	882	906

In an overall sense, both male and female respondents demonstrated an improvement in regards to their beliefs about the health effects of smoking. As shown in Table 25, there was a significant increase in the proportion of males and females in 2006 who believed ‘Smoking blocks arteries with fatty deposits’ (83% each) and ‘Smoking causes peripheral vascular disease’ (79% and 87% respectively). There was a also a significant increase in the proportion of males who believed ‘Smoking causes emphysema’ (91%) whilst for females the other significant increase was in relation to ‘Smoking causes mouth and throat cancer’ (94%).

In terms of gender differences, there was an overall trend for females to demonstrate a higher level of belief in the negative health effects of smoking than males. As Table 25 shows, in 2006, females were more likely to believe that ‘Smoking causes mouth and throat cancer’ (94%), ‘Smoking causes emphysema’ (93%), and ‘Smoking causes peripheral vascular disease’ (87%). In 2005, females were more likely to believe ‘Smoking causes emphysema’ (93%) and ‘Smoking blocks arteries with fatty deposits’ (79%).

Table 25: Beliefs about the Health Effects of Smoking by Gender (NTS)

Health Effects	Males		Females	
	% True		% True	
	2005 %	2006 %	2005 %	2006 %
Smoking causes mouth and throat cancer	91	90	91	94 ^{^*}
Smoking causes emphysema	88	91 [*]	93 [^]	93 [^]
Smoking blocks arteries with fatty deposits	76	83 [*]	79 [^]	83 [*]
Smoking causes peripheral vascular disease, also known as gangrene	73	79 [*]	74	87 ^{^*}
BASE: All Respondents	1440	1159	1730	1442

In 2006, there were a number of significant increases in beliefs about the health effects of smoking, amongst the different age groups:

- 16-17 year olds (87%), 18-24 year olds (89%), and 25-40 year olds (87%) acceptance of ‘Smoking causes peripheral vascular disease’ increased;

- 16-17 year olds (97%), 25-40 year olds (97%), and 61-69 year olds (88%) acceptance of ‘Smoking causes mouth and throat cancer’ increased; and
- 25-40 year olds acceptance of ‘Smoking causes emphysema’ (96%) and ‘Smoking blocks arteries with fatty deposits’ (88%) also increased (Table 26 over the page).

In looking at differences between the age groups there was an overall trend for a decrease in the level of belief about the health effects of smoking as age increased, with the exception of 16-17 year olds who tended to be less likely to believe the negative health effects.

More specifically Table 26 shows the following significant differences:

- 16-17 year olds were less likely than all other ages to believe ‘Smoking causes peripheral vascular disease’ (55%) in 2005 and ‘Smoking causes emphysema’ in both 2005 (76%) and 2006 (76%). In 2006, they were however, more likely than 41-60 year olds (79%) and 61-69 year olds (73%) to believe ‘Smoking blocks arteries with fatty deposits’ (87%);
- In 2006, 18-24 year olds were more likely than those aged 41-60 years and those aged 61-69 years to believe ‘Smoking causes mouth and throat cancer’ (96%), ‘Smoking causes peripheral vascular disease’ (89%), and ‘Smoking blocks arteries with fatty deposits’ (88%). In 2005 they were more likely than older respondents to believe ‘Smoking causes mouth and throat cancer’ (7%) and ‘Smoking blocks arteries with fatty deposits’ (86%);
- 18-24 year olds in 2005 were however less likely to believe ‘Smoking causes peripheral vascular disease’ (64%) than older respondents, and ‘Smoking causes emphysema’ (88%), in comparison to 25-40 year olds;
- in 2006, 25-40 year olds were more likely than older respondents to believe all four warnings - ‘mouth cancer’ (97%), ‘emphysema’ (96%), ‘fatty deposits’ (88%), and ‘peripheral vascular disease’ (87%), In 2005, they were more likely than older respondents to believe ‘smoking causes mouth and throat cancer’ (98%) and ‘smoking blocks arteries with fatty deposits’ (80%); and

- 41-60 year olds were more likely than 61-69 year olds to believe ‘Smoking causes peripheral vascular disease’ in 2006 (79% and 73% respectively) and ‘Smoking causes mouth and throat cancer’ in 2005 (88% and 77% respectively).

Table 26: Beliefs about the Health Effects of Smoking by Age (NTS)

Importance	16-17 yrs		18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %	2005 %	2006 %
Smoking causes peripheral vascular disease, also known as gangrene	55 [^]	87 [*]	64 [^]	89 [^] *	71	87 [^] *	81	79 [^]	74	77
Smoking causes mouth and throat cancer	93	97 [*]	97 [^]	96 [^]	95 [^]	97 [^] *	88 [^]	87	77	88 [*]
Smoking causes emphysema	76 [^]	76 [^]	88 [^]	89	93	96 [^] *	91	91	92	92
Smoking blocks arteries with fatty deposits	86	87 [^]	86 [^]	88 [^]	80 [^]	88 [^] *	73	79 [*]	75	73
BASE: All Respondents	406	600	606	600	1729	512	316	660	92	229

4.8 Avoidance of Specific Health Warnings

Smokers aware of health warnings on tobacco packs were asked whether they were taking some kind of action to avoid and/or conceal the graphic health warnings. As Table 27 shows, there was a significant increase in 2006 in the proportion of smokers avoiding/concealing the health warnings and a corresponding decrease in the proportion not avoiding the health warnings. In fact, following the introduction of the graphic health warnings smokers were around one and a quarter times more likely to avoid and/or conceal the graphic health warnings.

Table 27: Avoidance of Health Warnings (NTS)

Avoidance of Health Warnings	Smokers	
	2005 %	2006 %
Avoid buying packs with particular health warnings	4	9
Conceal the pack in some way	2	12
Both avoid and conceal	1	5
<i>Net Avoid/Conceal</i>	7	26 [*]
Don't avoid	93	74 [*]
Can't say	Δ	Δ
BASE: All Respondents Aware of Health Information	1739	1280

5. Results for the NHWC National Omnibus Surveys

In interpreting this section of the report it is important to keep in mind that Wave 1 was conducted in March 2006, at the time of the introduction of the graphic health warnings, and Wave 2 was conducted some four months later in July 2006. Packaging with graphic health warnings and packaging with the former text-only health warnings were available for retail during both waves although by wave 2 graphic health warnings were becoming more predominant.

5.1 Awareness of Health Information on Tobacco Packaging

Awareness of health information on tobacco packaging was high across the total sample in both Wave 1 (88%) and Wave 2 (91%) of the National Omnibus Survey. Smokers in both waves (97% and 98% respectively) were more likely than ex-smokers and non-smokers to be aware of health information on tobacco packaging (Table 28).

Table 28: Awareness of Health Information (National Omnibus Survey)

Aware	Total		Smokers		Ex-Smokers		Non-Smokers	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Yes	88	91	97 [^]	98 [^]	86	90	86	88
BASE: All Respondents	1001	1001	228	196	216	221	557	583

Interestingly, in Wave 2, females (93%) were more likely to be aware of health information on tobacco packaging than males (89%), as shown in Table 29.

Table 29: Awareness of Health Information by Gender (National Omnibus Survey)

Aware	Males		Females	
	W1 %	W2 %	W1 %	W2 %
Yes	87	89	89	93 [^]
BASE: All Respondents	458	455	543	546

As Table 30 shows, analysis by age revealed a significant increase in awareness of health information in Wave 2 for both respondents aged 41-60 years (94%) and those aged 61-69 years (82%). However, in both waves, respondents aged 61-69 years were less likely than those in the younger age groups to be aware of the health information on tobacco packaging.

Table 30: Awareness of Health Information by Age (National Omnibus Survey)

Aware	18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Yes	95	91	92	94	90	94*	75^	82^*
BASE: All Respondents	85	95	293	254	269	294	226	230

5.2 Awareness of Changes to Pack Warnings

Those who were aware of the health information on tobacco packaging were then asked whether they were aware of any changes to the warnings on tobacco/cigarette packs in the last 12 months. Nine in ten respondents (91%) were aware of the changes (Table 31). In fact, following the NHWC Campaign and the introduction of the new graphic health warnings, there was a significant increase in the proportion of respondents who were aware of changes to the warnings in Wave 2. This significant increase occurred in all smoking categories (including non-smokers), with smokers demonstrating the greatest increase in awareness from Wave 1 (27%) to Wave 2 (98%).

In addition, smokers (98%) showed a higher level of awareness than ex-smokers (90%) and non-smokers (88%) in Wave 2 (whereas in Wave 1, smokers (27%) were less likely to be aware of changes).

Table 31: Awareness of Changes (National Omnibus Survey)

Aware	Total		Smokers		Ex-Smokers		Non-Smokers	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Yes	38	91*	27^	98^*	42	90*	43	88*
BASE: Respondents Aware of Health Information	884	907	221	192	185	199	478	515

Awareness of the changes increased significantly amongst both males (89%) and females (93%), although females were more likely to be aware of changes to the warnings on tobacco packaging in both Waves 1 and 2, as shown below in Table 32.

Table 32: Awareness of Changes by Gender (National Omnibus Survey)

Aware	Males		Females	
	W1 %	W2 %	W1 %	W2 %
Yes	33	89*	43^	93^*
BASE: Respondents Aware of Health Information	399	403	486	505

Analysis by age revealed a significant increase in Wave 2 awareness of changes to the warnings on tobacco packaging, across all age groups (Table 33). Interestingly, those aged 61-69 years (49%), were less likely than other age groups to have noticed the changes in Wave 2.

Table 33: Awareness of Changes by Age (National Omnibus Survey)

Aware	18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Yes	37	89*	42	78*	37	65*	35	49^*
BASE: Respondents Aware of Health Information	81	86	270	239	242	276	169	189

When asked about the specific changes they had noticed to warnings on tobacco packaging, most respondents in both Wave 1 (71%) and Wave 2 (89%) mentioned the existence of pictures or graphic warnings (Table 34). Encouragingly, the increase from Wave 1 to Wave 2 was significant.

As Table 34 shows, there was also a significant increase in the proportion of each smoking category, (including non-smokers), mentioning the existence of picture or graphic warnings in Wave 2 (i.e., following the introduction of graphic health warnings). Further, in Wave 2, smokers (94%) were more likely than ex-smokers (88%) and non-smokers (85%) to mention the existence of graphic images.

Table 34: Noticed Pictures/Graphic Images (National Omnibus Survey)

Change Noticed	Total		Smokers		Ex-Smokers		Non-Smokers	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Pictures/Graphic Images	71	89*	43	94^*	78	88*	77	85*
BASE: Respondents Aware of Change	340	822	59	188	77	180	204	515

The proportion of both males (87%) and females (90%) mentioning the existence of picture or graphic images also increased significantly in Wave 2 (Table 35).

Table 35: Noticed Pictures/Graphics by Gender (National Omnibus Survey)

Change Noticed	Males		Females	
	W1 %	W2 %	W1 %	W2 %
Pictures/Graphic Images	70	87*	72	90*
BASE: Respondents Aware of Change	134	403	210	467

In Wave 2 (following the introduction of graphic health warnings), there was also a significant increase in the proportion of 18-24 year olds (93%), 25-40 year olds (94%), and 41-60 year olds (90%) who mentioned they had noticed the picture or graphic images. In addition, 61-69 year olds (67%) were less likely than younger respondents to have mentioned the picture or graphic images in Wave 2 (Table 36).

Table 36: Noticed Pictures/Graphics by Age (National Omnibus Survey)

Change Noticed	18-24 yrs		25-40 yrs		41-60 yrs		61-69 yrs	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Pictures/Graphic Images	76	93*	70	94*	73	90*	59	67^
BASE: Respondents Aware of Change	30	77	113	186	90	180	59	93

5.3 Perceived Impact of Graphic Health Warnings

In both waves of the National Omnibus Survey, respondents were asked to agree or disagree with a number of statements regarding the impact of the tobacco health warnings on their beliefs and behaviours in relation to smoking.

Table 37, over the page, shows that in Wave 2, (following the introduction of the graphic health warnings), there was a significant increase in the proportion of smokers who believed the tobacco health warnings ‘effectively communicate the health consequences of smoking’ (from 66% to 79%). In addition, there was a substantial, but not significant, increase in the proportion of smokers who believed the health warnings ‘would help prevent people from taking up smoking’ (from 49% to 61%).

Interestingly, there were some significant decreases in Wave 2:

- the total sample, ex-smokers and non-smokers were less likely to suggest the health warnings had raised their concerns; and
- non-smokers were less likely to believe the health warnings would ‘help prevent people from taking up smoking’;

In an overall sense, non-smokers (40%) were less likely than smokers (52%) in Wave 2 to agree the health warnings had raised their concerns about smoking.

There were no significant changes over time amongst males or females or amongst the different age segments.

Table 37: Impact on Beliefs and Behaviour (National Omnibus Survey)

Beliefs and Behaviours	Total		Smokers		Ex-Smokers		Non-Smokers	
	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %	W1 %	W2 %
Have raised your concerns about smoking	49	43*	46	52	57	45*	47	40^*
Would help prevent people from taking up smoking	57	54	49	61	58	55	59	51*
Effectively communicate the health consequences of smoking	74	78	66	79*	79	80	77	77
Have made you think about quitting	NA	NA	48	55	NA	NA	NA	NA
Have helped you give up smoking	NA	NA	15	17	NA	NA	NA	NA
Have helped you stay quit	NA	NA	NA	NA	32	24	NA	NA
BASE: Respondents Aware of Change	340	822	59	188	77	180	204	515

5.4 Smoking Behaviour

All smokers were asked whether they avoided particular health warnings or concealed the warnings in any way (Table 38). In Wave 2 (following the introduction of the graphic health warnings), there was a significant increase in concealment/avoidance of the health warnings (8% to 26%) and a corresponding significant decrease in the proportion of smokers who indicated they were not avoiding or concealing packs (from 91% to 74%).

Table 38: Smoker Avoidance Behaviour (National Omnibus Survey)

Avoid or Conceal Packs	Smokers	
	W1 %	W2 %
Yes, avoid buying packs with particular health warnings	4	8
Yes, conceal the pack in some way	3	11
Both avoid and conceal	1	7
<i>Nett Avoid/Conceal</i>	8	26*
No	91	74*
BASE: All Smokers	228	196

5.5 Type of Health Warning on Current Pack

In order to investigate the extent to which tobacco packaging with the graphic health warnings had entered the retail environment, smokers were asked which type of health warning they had on their current pack of tobacco or cigarettes (this question was asked in Wave 2 only). As can be seen in Table 39, packaging with graphic health warnings was prevalent, with almost seven in ten smokers (68%) indicating their packet had this type of warning. However, tobacco packaging with text-only health warnings was still relatively common on retail shelves, as 23% of smokers indicated they had one on their pack. At the time of Wave 2, smokers were therefore more likely to have tobacco packaging with a graphic health warning.

Table 39: Current Pack (National Omnibus Survey)

Type of Warning on Pack	Smokers
	W2 %
Picture	68*
Text (only)	23
None (import)	4
Can't say	6
BASE: All Smokers	196

6. Discussion and Conclusions

While not designed as an instrument for evaluating the impact and effectiveness of the graphic health warnings the NTS was well suited to provide some evaluative measures. The 2005 study was conducted prior to the full implementation of the new Regulations and the 2006 study was conducted during the first transition period between Set A and Set B, which was some 8-9 months after the 1 March 2006 date when tobacco packaging had to be printed with the new graphic health warnings.

The National Omnibus Surveys were more limited in their usefulness as the questionnaire was much shorter and Wave 2 was conducted at a point in time when tobacco packaging with graphic health warnings had only recently been introduced to the retail environment. The Regulations required the printing of graphic health warnings on packaging from 1 March 2006, hence as a result of normal business flow, both packaging with text-only health warnings and packaging with graphic health warnings appeared to have been in the retail environment at the time of Wave 2 (July 2006).

Despite the methodological limitations of the four surveys, they revealed some encouraging findings and similar trends in terms of the impact and effectiveness of the new graphic health warnings.

Tobacco Packaging Health Warnings Were Considered Important

Three quarters of the sample (75%) in the 2006 NTS considered it important to have health warnings on tobacco packaging, with 16-17 year olds (94%) and non-smokers (93%) showing the strongest support for the warnings. While there was a small but significant decrease in the proportion of smokers who felt the warnings were important in 2006 (down 4% to 67%), support for the warnings was still very high with two thirds of smokers (67%) considering them important. It is hypothesised that some smokers may have been less comfortable with the new graphic health warnings.

Interestingly, in countries where graphic health warnings have been introduced there has been strong public approval of their introduction; for example, in Canada, eight in ten Canadians see graphic health warnings as an important source of information about the health effects of smoking (Environics Research Group, 2005a). Similarly in Brazil (Cavalcante, n.d) and in Europe (Commission of the European Communities, 2005) there has been strong community support for similar graphic health warnings.

The Graphic Health Warnings Have Been Noticed

Both studies showed that a high level of awareness of health information on tobacco packaging had been maintained (91% in Wave 2 of the National Omnibus Survey and 93% in the 2006 NTS), particularly amongst smokers (98% and 95% respectively). While neither study showed a significant increase in awareness it is suggested this was due to the already very high level of awareness of health information on tobacco packaging.

There was also a very high level of awareness of the changes to the health warnings in the later waves of both studies (91% in the Wave 2 National Omnibus Survey and 82% in the 2006 NTS), with smokers showing the highest level of awareness (98% and 89% respectively). To that end, both studies showed significant increases in awareness of changes to the health warnings, suggesting that as the packs with graphic health warnings began to enter the retail environment, they had a significant impact in terms of noticeability. Allied to this was the high level of recall, in both studies, of the change to the health warnings being pictures/graphic images (89% in Wave 2 of the National Omnibus Survey and 89% in the 2006 NTS).

Once again the high awareness of the change to tobacco packaging and the use of graphic health warnings observed in both the 2006 NTS and Wave 2 National Omnibus Survey echoes similar impact and increase in noticeability found overseas. Graphic health warnings have been shown to attract more attention and create impact than text-only health warnings (BRC Marketing & Social Research, 2004a, 2004b, 2005; O'Hegarty et al, 2007).

The 2006 NTS showed good levels of recall for the new graphic health warnings given they had been in circulation for less than nine months. Two of the more visually graphic warnings from Set A were most likely to be recalled (unaided) with two in ten (19%) recalling ‘Smoking causes peripheral vascular disease’ and 14% recalling ‘Smoking causes mouth and throat cancer’. As might be expected recall of these two warnings was highest amongst smokers (25% and 16% respectively). It should also be noted that the higher recall of these two warnings may also be a result of their usage in media campaigns in 2006. For example, the ‘Smoking causes mouth and throat cancer warning’ was featured in the Department’s National Campaign to support the introduction of graphic health warnings, while both warnings were featured in 2006 State/Territory campaigns on the negative health effects of smoking.

These two warnings were also most likely to be nominated as the most effective warnings, with 29% nominating ‘Smoking causes mouth and throat cancer’ and 16% ‘Smoking causes peripheral vascular disease’ in the 2006 NTS. This suggests that respondents equated visual potency with effectiveness. Again, the evidence suggests that these warnings have had a greater impact on smokers, particularly the ‘peripheral vascular disease’ warning, with smokers (20%) being twice as likely as ex-smokers (11%) and non-smokers (11%) to nominate this as the ‘most effective’.

Readership of the Health Warnings Has Improved

The 2006 NTS also showed an encouraging increase in readership of the health warnings on the back of the pack (from 55% to 61%), suggesting that new graphic health warnings were not only gaining attention but being read. In fact, smokers demonstrated an increase in readership of both the back and side of the pack warnings:

- in terms of the back of the pack, this increased readership might have resulted from the size of the warning on the back of the pack (the new graphic health warnings take up 90% of the back of the pack), the amount of information on the back, and/or the number of new warnings supplying relatively new information to people, thus the information was of more interest; and
- the increased readership of the side of the pack amongst smokers (58% to 62%) suggests also that the introduction of new information has encouraged greater readership for this segment.

Interestingly, while readership of the warnings on the back of the pack increased significantly, the reverse was true for the warnings on the front of the pack. It is unclear as to why this has occurred, although it is hypothesised that the increased attention on the back of the pack led to decreased attention on the front.

The Community Believes the Graphic Warnings Have Affected Knowledge and Behaviour

In both the NTS and National Omnibus Surveys a significant proportion of respondents agreed that the graphic health warnings were having an impact:

- Just under six in ten (57%) smokers in the 2006 NTS agreed the warnings had improved their ‘knowledge of the health effects of smoking’, a slight but significant increase from 54% in 2005;
- In the 2006 NTS, 74% of smokers and more than eight in ten ex-smokers (82%), non-smokers (84%), and recent quitters (89%) agreed the warnings ‘effectively communicate the health consequences of smoking’. Again these all represented a significant increase from 2005. Figures for the same statement in Wave 2 of the National Omnibus Survey were similar – 79% of smokers, 80% of ex-smokers and 77% of non-smokers, with smokers increasing significantly from 66% in Wave 1;
- Around half the recent quitters in the 2006 NTS said the warnings had helped them give up smoking (52%) and stay quit (54%), both of which were significant increases from 2005; and
- In the 2006 NTS there were also significant increases in the proportion of non-smokers (32% to 39%), recent quitters (48% to 69%), and smokers (48% to 63%) who said the health warnings ‘would help prevent people from taking up smoking’. Wave 2 of the National Omnibus Survey also showed an increase amongst smokers (49% to 61%), however it was not significant at the 95% confidence level (due to the small sample of smokers in Wave 1).

The 2006 NTS provided further evidence that the graphic warnings had positively influenced community knowledge of the health effects of smoking:

- Smokers (71% in 2005 to 81% in 2006), ex-smokers (81% in 2005 to 91% in 2006), and non-smokers (77% in 2005 to 85% in 2006) were more likely to believe ‘Smoking causes peripheral vascular disease’;
- Smokers (77% in 2005 to 84% in 2006) and non-smokers (76% in 2005 to 80% in 2006) were more likely to believe ‘Smoking blocks arteries with fatty deposits’;
- Non-smokers were more likely to believe that ‘Smoking causes mouth and throat cancer’ (95% in 2005 to 97% in 2006); and
- Ex-smokers (90% in 2005 to 96% in 2006) were more likely to believe that ‘Smoking causes emphysema’.

The link between exposure to graphic health warnings and knowledge of the health consequences of smoking has been noted in studies conducted overseas (Fong et al, 2002; Hammond et al, 2006, Silpasuwan, 2006).

There was one other measure in both the National Omnibus Survey and the NTS which suggests that the graphic health warnings had an impact on smokers. In Wave 2 of the National Omnibus Survey and the 2006 NTS, there was a significant increase in the proportion of smokers avoiding and/or concealing the health warnings on tobacco packaging. In fact, both studies showed a shift from around one in ten smokers (8% in Wave 1 and 7% in the 2005 NTS) concealing and/or avoiding health warnings to 26% doing so in both Wave 2 and the 2006 NTS. It is hypothesised that as the graphic health warnings are by their very nature graphic, and therefore considerably more confronting than the previous text-only health warnings, their introduction had caused around one quarter of smokers to adopt avoidance behaviours.

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7. Appendix – Detailed Methodology

7.1 The National Tobacco Survey

The 2005 NTS consisted of a series of 3170 telephone interviews conducted between 31 October to 14 December, 2005, by The Social Research Centre.

The sample was quota based for people aged 18 years and over (with a 75% smoker quota) and those aged 16-17 years, with post weighting of the sample to reflect Australian population demographics.

The 2006 NTS consisted of a series of 2800 telephone interviews amongst people aged 12 years and over, the data analysed for this report was based on the sample of those aged 18 years and over (n=2002) in order to allow comparisons with the 2005 data. As with the 2005 NTS, the sample was quota based for people aged 18 years and over (with a 75% smoker quota) and those aged 16-17 years, with post weighting of the sample to reflect Australian population demographics

The Social Research Centre again conducted this study, with the fieldwork period being 10 November to 21 December, 2006.

7.1.1 The Issues Involved in Comparing 2005 and 2006 NTS Data

In 2006 the basis of the NTS survey was changed substantially. This meant that strictly speaking the basis for tracking comparison was lost. The main change was a change in the age brackets covered. However, there were other changes as noted by the Social Research Centre:

- There was a switch from an Electronic White Pages (EWP) sample to a Random Digit Dialling (RDD) sample;

- The implementation of a new quota structure so that in 2006 there were quotas for 12 -14 year olds (n=200), 15-17 year olds (N=600), 18-24 year olds (N=600 including a 75% smoker quota), and 25-69 year olds (N=1400 including a 75% smoker quota); whereas, in 2005 there was a quota of 400, 16-17 year olds, 2400, 18-24 year olds (including a 75% smoker quota) and 400, 41-69 year olds (including a 75% smoker quota); and
- One evaluation interview per household whereas, previously allowance was made for up to three per household.

The sample breakdown for the 2005 and 2006 studies is shown in Tables 40 below:

Table 40: Comparison of 2005 & 2006 Unweighted NTS Samples

	2005		2006	
	No. of Respondents	%	No. of Respondents	%
Gender				
Male	1440	45	1159	45
Female	1730	55	1442	55
Age				
16-17 years	406	13	600	23*
18-24 years	606	19	600	23
25-40 years	1729	55	512	20
41-60 years	316	10	660	25
61-69 years	92	3	229	9
Location				
NSW/ACT	528	17	433	17
VIC	542	17	432	17
QLD	537	17	434	17
WA	519	16	435	17
SA/NT	522	17	433	17
TAS	522	17	434	17
Smoking Status				
Smoker	1806	58	1352	52
Ex-smoker	444	14	331	13
Non-smoker	882	28	906	35
Total Interviews	3170		2601	

The main limitations of this comparison are the following:

1. In the 2006 survey the 15-17 age bracket was used but in weighting the data the 15-17 year olds in the 2006 NTS survey were treated as being a 16-17 year old age group. This means that specific comparisons for this age group have to be treated with caution.

2. Separate weighting for smoker status was not used which means we cannot reach conclusions about the overall Australian population or the relative incidence of smoking. The quota nature of the sample and the sampling procedure limit us from such observations

7.1.2 The Post Weighting Approach for the 2005 and 2006 NTS Data

The objective of this procedure was to examine the 16 to 69 year old smoker and non smoker groups separately across the time period 2005 and 2006.

The overall sample for each year was weighted by age, gender and location (state and capital city) in line with the Australian population statistics. This ensured that subgroups such as smokers in 2005 could be compared with 2006 smokers because the mix of their demographics was comparable.

After post weighting the sample proportions for each strata are more in line with overall population statistics except for the smoker status which still reflect the quotas in the design. The weighted sample proportions are shown in Table 41 below:

Table 41: Comparison of 2005 and 2006 Weighted NTS Samples

	2005	2006
	%	%
Gender		
Male	49	49
Female	51	51
Age		
16-17 years	4	4
18-24 years	14	14
25-40 years	35	35
41-60 years	38	38
61-69 years	10	10
Location		
NSW/ACT	34	34
VIC	25	25
QLD	20	20
WA	8	8
SA/NT	11	11
TAS	2	2
Smoking Status		
Smoker	63	65
Ex-smoker	16	16
Non-smoker	21	19

7.2 NHWC Evaluation via National Omnibus Survey

Wave 1 and Wave 2 of the National Omnibus Survey consisted of a series of n=1001 telephone interviews conducted by Woolcott Research. Wave 1 was conducted from 10 to 12 March, 2006, which was immediately following campaign activity, and Wave 2 was conducted from 14 to 16 July, 2006.

The weighted and unweighted sample breakdowns are detailed in Tables 5 and 6.

Table 42: Comparison of Wave 1 and Wave 2 Unweighted National Omnibus Survey Samples

	Wave 1		Wave 2	
	No. of Respondents	%	No. of Respondents	%
Gender				
Male	458	46	455	46
Female	543	54	546	55
Age				
16-17 years	28	3	28	3
18-24 years	85	9	95	10
25-40 years	293	29	254	25
41-60 years	369	37	394	39
61-69 years	226	23	230	23
Location				
NSW/ACT	341	34	340	34
VIC	240	24	241	24
QLD	140	14	140	14
WA	110	11	110	11
SA/NT	130	13	130	13
TAS	40	4	40	4
Smoking Status				
Smoker	228	23	196	20
Ex-smoker	216	22	221	22
Non-smoker	557	56	583	58
Total Interviews	1001		1001	

Table 43: Comparison of 2005 & 2006 Unweighted National Omnibus Survey Samples

	2005	2006
	%	%
Gender		
Male	49	49
Female	51	51
Age		
16-17 years	4	4
18-24 years	12	12
25-40 years	28	26
41-60 years	35	36
61-69 years	22	22
Location		
NSW/ACT	35	35
VIC	25	25
QLD	19	19
WA	8	8
SA/NT	11	11
TAS	2	2
Smoking Status		
Smoker	23	20
Ex-smoker	21	22
Non-smoker	56	58