



THE SOCIAL
RESEARCH CENTRE

Level 1, 262 Victoria St, Nth Melbourne Vic 3051
Phone: (03) 9326 4460 Fax: (03) 9326 4060
Toll-free phone: 1800 023 040 ABN: 91 096 153 212
www.srcentre.com.au info@srcentre.com.au

NATIONAL TOBACCO SURVEY: SMOKING PREVALENCE AND CONSUMPTION, 1997-2005

FEBRUARY 2006

PREPARED FOR

RESEARCH AND MARKETING GROUP
BUSINESS GROUP
DEPARTMENT OF HEALTH AND AGEING
LEVEL 6, 1 OXFORD STREET
DARLINGHURST NSW 2010

Foreword

The National Tobacco Survey evolved from the National Tobacco Campaign Evaluation Survey designed by the Research and Evaluation Committee.

There has been no National Tobacco Campaign activity since May 2004. The members of the Committee at that time comprised the following experts:

Ms Jenny Taylor (Chair) is the Director of the Research and Marketing Group, Australian Government Department of Health and Ageing. She is responsible for providing advice and management of research for development and evaluation of population health social marketing campaigns.

Dr Ron Borland is a Nigel Gray Distinguished Fellow in Cancer Prevention at the Cancer Control Research Institute within the Cancer Council of Victoria. He has been involved in the evaluation of the Victorian Quit Campaign and has taken a leading role in researching the potential impact of regulatory innovations in tobacco control.

Dr Tom Carroll is a senior adviser (consultant) on social marketing and research to the Australian Government Department of Health and Ageing. He has been a consultant on research and strategy across more than twenty-five national and state-wide public health social marketing campaigns in Australia over the last two and a half decades.

Professor Rob Donovan is a Professor of Behavioural Research and Director of the Centre for Behavioural Research in Cancer Control in the Division of Health Sciences at Curtin University. He has over 25 years experience in conducting research on health and social issues and in developing communication strategies to achieve belief, attitude and behavioural change.

Professor Melanie Wakefield is Director of the Centre for Behavioural Research in Cancer at the Cancer Control Research Institute, The Cancer Council of Victoria. Melanie has two decades experience in evaluating tobacco control policies and programs, with particular interests in understanding the influence of anti-smoking advertising and studying the effects of smoke-free policies on smokers and non-smokers. She is also a Deputy Editor of the BMJ's specialist international journal Tobacco Control.

Ms Trinette Kinsman is a Research Manager for the Research and Marketing Group, Australian Government Department of Health and Ageing. She is responsible for managing research for the National Tobacco Survey and National Tobacco Strategy.

Historically, the trend analysis of smoking prevalence has been conducted using logistic regression on unweighted data for all survey years. In the early years of the Survey there was little variation in the enumerated samples, however, more recently sample variation has become apparent which may affect smoking prevalence results. To adjust for this, the Committee recommended the samples for each year be standardised to facilitate comparisons between the survey years.

The enumerated data for each survey year reported within this document has been age and gender standardised to the 2001 Australian population using Australian Bureau of Statistics Census Data.

Standardisation affects the smoking prevalence rates by effectively removing the influence of age or gender. Thus the rates shown in this report differ slightly from those published prior to 2003.

Acknowledgements

This report is based on previous work undertaken for the Australian Government Department of Health and Ageing by the Centre for Behavioural Research in Cancer (Wakefield and Bobevski, 2003). For ease of comparison, the Centre for Behavioural Research in Cancer report has been utilised as a base and updated with data from 2003 onwards.

We thank the National Tobacco Survey Research and Evaluation Committee for their assistance with issues pertaining to the age and gender standardisation of enumerated data.

Introduction

This preliminary report presents initial findings pertaining to smoking prevalence and cigarette consumption from the November 2005 National Tobacco Survey and compares findings from 2005 with those from previous years.

The National Tobacco Survey was originally established as a tool to evaluate the National Tobacco Campaign, which was launched in June 1997, reflecting the cooperative partnership between Federal, State and Territory governments and interested non-government organisations. The campaign was primarily targeted at 18 to 40 year old smokers with the message that “Every cigarette is doing you damage”.

The Campaign has been evaluated by a series of Australia-wide cross-sectional surveys. A baseline survey was undertaken in May 1997, with evaluation surveys conducted in November 1997 and annually in November thereafter.

With no National Tobacco Campaign activity by the Department in 2005¹, the survey has become an important monitor of tobacco issues, in addition to collecting smoking prevalence and cigarette consumption data, and evaluating the ongoing effectiveness of campaign activity.

The surveys were commissioned by the Australian Government Department of Health and Ageing, and were conducted by Roy Morgan Research up to 2001 and by the Social Research Centre from 2002 to 2005.

Method

The surveys of households were conducted by telephone and the electronic White Pages were used as the sampling frame. A national sample was selected whereby the Australian Capital Territory (ACT) was included with New South Wales (NSW) and the Northern Territory (NT) was included with South Australia (SA).

The 2005 survey replicated the methods established in previous surveys. Persons aged 18 years and over who answered the telephone comprised the informant sample. Informants reported on the age and gender of all the residents in the household and the smoking status of adults aged 18 years or more (and in some years, including 2005, the smoking status of

¹ The last media buy was in May 2004

16-17 year olds was also collected). This information is referred to as the enumerated sample.

From the enumerated sample, a target group was selected to answer the full evaluation survey, referred to as the respondent sample. The respondent sample comprised the target age group of 18-40, and a quota sampling method was used to generate a sample with 75% of smokers (those who smoke on at least a weekly basis) or recent quitters (defined as those who have, over the past year, stopped smoking cigarettes on a weekly basis or more often). The balance of the respondent sample was non-smokers (defined as those who had never smoked, or had quit smoking more than a year ago) and, in 2005, a sample of 400 16 to 17 year olds (excluded from the analysis presented in this report). There was a small minority of occasional smokers who did not fall into the smoker / non-smoker categories.

Table 1 shows the number of people aged 18 years and older who comprise the informant and enumeration samples, along with the respondent sample of 18-40 year olds, including the sub-groups of smokers and recent quitters, and non-smokers.

Table 1. Sample size of benchmark and follow-up surveys

Number of people sampled	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May 1997	Nov 1997	Nov 1998	Nov 1999	Nov 2000	Nov 2001	Nov 2002	Nov 2003	Nov 2004	Nov 2005
Informants aged 18+ years	6,657	17,712	11,156	12,271	13,804	11,898	15,979	16,993	16,385	20,778
Total household enumeration aged 18+ years	13,813	36,763	23,259	25,158	29,297	24,313	32,210	34,481	32,832	42,108
Survey respondents 18-40 years	1,979	4,197	2,289	2,277	2,308	2,041	2,469	2,473	2,493	2,346
Non-smoker respondents	781	1,191	628	645	613	566	676	691	701	648
Smoker and recent quitter respondents	1,192	2,981	1,646	1,611	1,675	1,462	1,769	1,769	1,782	1,687

Questionnaire Administration

The 2005 questionnaire was similar to the 2004 questionnaire and included questions about respondents' awareness of advertising about health, their recall and appraisal of campaign advertising, recent learnings about smoking and health, and their agreement or disagreement with a range of opinion statements relating to smoking and health. Respondents' current and future intentions regarding their smoking behaviour were obtained. Smokers were also requested to provide information about their level of tobacco consumption and type of tobacco smoked.

As in previous surveys, the age and sex of each household member was obtained through the informant for the enumeration survey, including the main income earner's occupational status, the main language spoken at home and, for the first time in 2005, rules and restrictions on smoking in the household. Additional demographic information was obtained from the respondents who progressed to a full interview, including level of educational attainment and employment status.

Statistical Methods and Presentation of Data

Changes in prevalence and consumption over time were analysed using logistic regression. Relative changes in means over time were analysed using analysis of variance. In these analyses, the 2005 figures were compared to each of the previous years while trends over time were tested from the benchmark to 2005.

The respondent sample of smokers and recent quitters was weighted, as in the previous reports, according to the Australian Bureau of Statistics population estimates, while retaining the original sample size.

For consistency of presentation with previous reports authored by the Centre for Behavioural Research in Cancer, the informant and enumerated sample data are unweighted, unless otherwise stated. In order to adjust for sample variation that has become apparent in recent years and which may impact on smoking prevalence results, enumerated smoking prevalence data has also been age and gender standardised to the 2001 Australian population, using Australian Bureau of Statistics Census Data.

Statistical significance was assessed at the conventional 95% confidence level. Where differences are referred to as significant in the text, they met this criterion.

Sample Demographic Characteristics

Informant and Enumerated Sample

Tables 2a and 2b show the unweighted demographic characteristics of the informant and enumerated samples respectively. As can be seen, the composition of the enumerated sample has changed over time. For example, 47.1% of the Benchmark enumerated sample was aged 18-40 years, compared with 37.5% of the 2005 sample. This may possibly be attributable to factors such as changes in the Australian population structure, contactability dynamics and propensity to respond by various demographic groups, as well as the age of the sample frame.

Age and gender standardisation, as described in the previous section, was used to effectively remove the influence of changes in enumerated sample demographic characteristics over time.

Table 2a. Informant sample demographic profiles

	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May-97	Nov-97	Nov-98	Nov-99	Nov-00	Nov-01	Nov-02	Nov-03	Nov-04	Nov-05
Base	6,657	17,712	11,156	12,271	13,804	11,898	15,979	16,993	16,385	20,778
Gender										
Male	40.9	39.4	37.0	38.9	38.5	35.9	37.0	35.3	36.9	35.8
Female	59.1	60.6	63.0	61.1	61.5	64.1	63.0	64.7	63.1	64.2
Age										
18-29 years	16.8	17.4	16.3	13.7	13.5	13.2	12.0	10.6	13.0	10.9
30-40 years	27.7	27.5	24.5	24.5	23.5	23.2	21.2	20.2	22.3	20.6
41-60 years	35.1	33.6	41.7	43.1	41.9	39.2	39.6	39.3	38.9	40.1
61+ years	19.9	20.6	17.1	17.9	19.9	23.3	26.1	29.6	25.3	27.4
Socio-economic status										
Blue collar	30.1	28.9	29.2	29.5	26.1	28.5	25.9	23.9	23.7	23.8
Lower Blue	12.2	10.9	12.2	11.3	10.0	11.4	11.0	12.9	12.0	10.8
Upper Blue	17.9	18.0	17.0	18.2	16.1	17.1	14.9	11.0	11.7	13.0
White collar	45.7	44.3	42.2	45.4	44.6	40.9	41.3	41.3	44.8	43.3
Lower White	22.9	20	19.8	22.5	21.1	23.1	14.3	16.8	16.9	15.4
Upper White	22.8	24.2	22.4	22.9	23.5	17.8	27.1	24.5	27.9	27.9
Total employed	75.8	73.2	71.4	74.9	70.7	69.4	67.2	65.2	68.5	67.1
Language spoken at home										
English	97.1	96.8	96.8	96.8	96.8	97.1	96.7	96	95.6	96.3
Other	2.9	3.2	3.2	3.2	3.2	2.9	3.3	4.0	4.4	3.7
Region										
Capital city	58.7	61.6	63.6	63.5	60.8	59.8	60.0	62.7	64.4	60.8
Other	41.3	38.4	36.4	36.5	39.2	40.2	40.0	37.3	35.6	39.2

Table 2b. Enumerated sample demographic profiles

	Benchmark May-97	Wave 1 Nov-97	Wave 2 Nov-98	Wave 3 Nov-99	Wave 4 Nov-00	Wave 5 Nov-01	Wave 6 Nov-02	Wave 7 Nov-03	Wave 8 Nov-04	Wave 9 Nov-05
Base	13,813	36,763	23,259	25,158	29,297	24,313	32,210	34,481	32,832	42,108
Gender										
Male	49.5	49.4	49.1	49.2	49.4	48.5	48.9	48.3	48.6	48.3
Female	50.5	50.6	50.9	50.8	50.6	51.5	51.1	51.7	51.4	51.7
Age										
18-29 years	22.3	22.1	21.4	19.6	19.2	19.2	18.3	16.8	19.6	18.0
30-40 years	24.8	24.8	22.7	22.4	21.2	21.4	20.3	19.2	21.3	19.5
41-60 years	35.2	34.2	41.1	41.9	41.5	38.7	38.4	38.6	37.5	38.5
61+ years	17.4	18.0	14.5	15.4	17.0	19.6	22.0	25.1	20.8	22.3
Socio-economic status										
Blue collar	31.6	30.2	31	30.7	27.6	30.5	28.0	25.6	25.4	25.6
Lower Blue	12.7	11.3	12.7	11.4	10.4	12.0	11.9	13.6	12.6	11.5
Upper Blue	18.8	18.9	18.3	19.4	17.1	18.5	16.1	12.0	12.8	14.1
White collar	48.1	47.1	45.2	48.3	48	43.9	44.8	44.5	48.0	46.6
Lower White	23.3	20.8	20.5	23.2	22.0	24.0	15.1	17.7	17.7	16.0
Upper White	24.7	26.3	24.6	25.1	26	19.9	29.7	26.8	30.3	30.6
Total employed	79.7	77.3	76.2	79.0	75.6	74.4	72.8	70.1	73.4	72.2
Language spoken at home										
English	96.2	95.9	96.1	95.9	95.9	96.6	96.2	95.3	94.8	95.7
Other	3.8	4.1	3.9	4.1	4.1	3.4	3.8	4.7	5.2	4.3
Region										
Capital city	60.1	62.7	64.7	64.4	62.4	61.3	61.3	64.3	65.7	61.9
Other	39.9	37.3	35.3	35.6	37.6	38.7	38.7	35.7	34.3	38.1

Respondent Sample

Table 3 shows the unweighted demographic characteristics of the respondent sample of smokers and recent quitters for each of the surveys. The composition of the samples has remained relatively constant since the Benchmark survey apart from:

- A slight increase in the proportion of tertiary qualified respondents;
- A slight decline in the proportion of respondents employed in blue collar occupations;
and
- A corresponding increase in the proportion of those in white collar employment.

The 2005 respondent sample also shows a slightly lower proportion of capital city residents. This reflects the shortfall in interviews achieved with capital city residents, relative to survey quotas.

With the possible exception of the above, the demographic composition of the smokers and recent quitters population does not appear to be systematically or substantially different from that of previous years.

Table 3. Demographic characteristics of smokers and recent quitters (unweighted data)

Smokers and recent quitters (within the last year)	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May 1997	Nov 1997	Nov 1998	Nov 1999	Nov 2000	Nov 2001	Nov 2002	Nov 2003	Nov 2004	Nov 2005
	(n=1,192)	(n=2,981)	(n=1,646)	(n=1,611)	(n=1,675)	(n=1,462)	(n=1,769)	(n=1,769)	(n=1,782)	(n=1,687)
Gender										
Male	48%	48%	45%	46%	47%	45%	47%	45%	49%	46%
Female	52%	52%	55%	54%	53%	55%	53%	55%	51%	54%
Age										
18-29 years	47%	45%	45%	43%	47%	45%	44%	40%	44%	43%
30-40 years	53%	55%	55%	57%	53%	55%	56%	60%	56%	57%
Education status										
Completed some or all secondary school	65%	65%	66%	61%	62%	64%	60%	65%	55%	58%
Completed at least some tertiary	35%	35%	34%	39%	38%	36%	40%	35%	45%	42%
Work status										
Working	74%	73%	70%	72%	73%	72%	77%	76%	77%	76%
Retired / Pensioner	2%	3%	3%	3%	4%	3%	2%	3%	2%	3%
Student	7%	6%	6%	6%	6%	5%	3%	3%	5%	5%
Home duties	11%	12%	15%	14%	11%	14%	12%	12%	11%	11%
Unemployed	6%	6%	6%	5%	6%	6%	6%	6%	5%	5%
Socio-economic status (Q82)										
Blue collar	50%	51%	50%	51%	49%	52%	56%	48%	44%	45%
White collar	50%	49%	50%	49%	51%	48%	44%	52%	56%	55%
Language spoken at home										
English	97%	98%	98%	97%	97%	98%	97%	98%	97%	97%
Other	3%	2%	2%	3%	3%	2%	3%	2%	3%	3%
Region										
Capital city	58%	62%	62%	62%	61%	60%	62%	61%	62%	58%
Other	42%	38%	38%	38%	39%	40%	38%	39%	38%	42%

Results

Smoking Prevalence

To estimate the prevalence of smoking in the population as a whole, data from two samples were available. The informant sample was obtained from people aged 18 years or older who answered the telephone and reported their own smoking status. For the enumerated sample, the informant was asked about the smoking status, sex and age group of every adult member of the household. The household's main income earner's occupation was also obtained to code their socio-economic status (SES).

The Department's recommended indicator for reporting smoking prevalence, (the proportion of the sample who, at a minimum, smoke on a weekly basis), from the National Tobacco Survey data is based on the weighted enumerated sample.

Prevalence figures for the enumerated, (weighted and unweighted), and informant (unweighted) samples are presented in Table 4 for the period May 1997 to November 2005. Logistic regression analysis showed the existence of a statistically significant downward trend in smoking prevalence for the weighted, enumerated sample during this time. The analysis also suggested this decrease was occurring at a relative rate of approximately 1.8% per annum. As can be seen in Figure 1, the downward trend was stronger in the early years of the campaign, with an easing of the overall trend until more recent years. After remaining static at approximately 20% from 1999 to 2002, a new downward trend in smoking prevalence is beginning to emerge, with a significant year on year decrease between 2004 and 2005.

Table 4. Smoking Prevalence

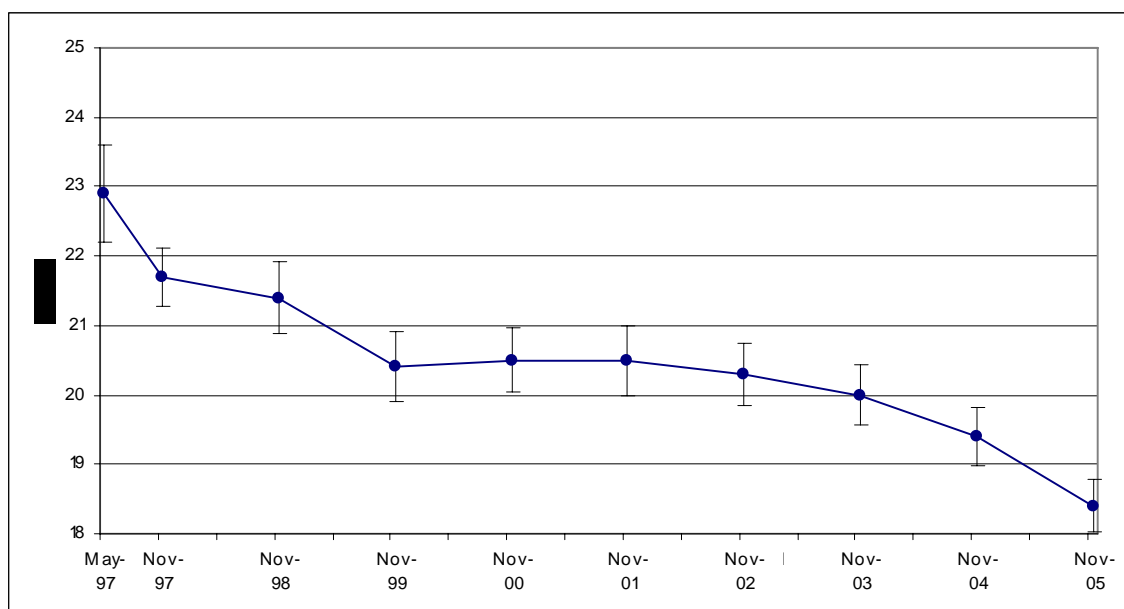
	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May-97	Nov-97	Nov-98	Nov-99	Nov-00	Nov-01	Nov-02	Nov-03	Nov-04	Nov-05
Household sample type	(E=13,813) (I=6,657)	(E=36,763) (I=17,712)	(E=23,259) (I=11,156)	(E=25,158) (I=12,271)	(E=29,297) (I=13,804)	(E=24,313) (I=11,898)	(E=32,210) (I=15,979)	(E=34,481) (I=16,993)	(E=32,832) (I=16,385)	(E=42,108) (I=20,778)
Enumerated (weighted)	22.90%	21.70%	21.40%	20.40%	20.50%	20.50%	20.30%	20.00%	19.40%	18.40%
Enumerated (unweighted)	23.50%	22.10%	21.80%	20.70%	20.50%	20.20%	19.80%	19.00%	19.20%	18.00%
Informant (unweighted)	23.70%	21.90%	21.90%	20.80%	20.30%	19.50%	19.80%	18.40%	19.00%	17.50%

When logistic regression was carried out for the unweighted informant sample there was also evidence of a decline in smoking prevalence since May '97. This was more rapid than for the weighted enumerated sample with the relative annual rate of decrease being approximately 2.7%.

The smoking prevalence in different socio-demographic groups of the weighted enumeration sample is presented in Table A1 in the Appendix and the unweighted informant sample is presented in Table A2.

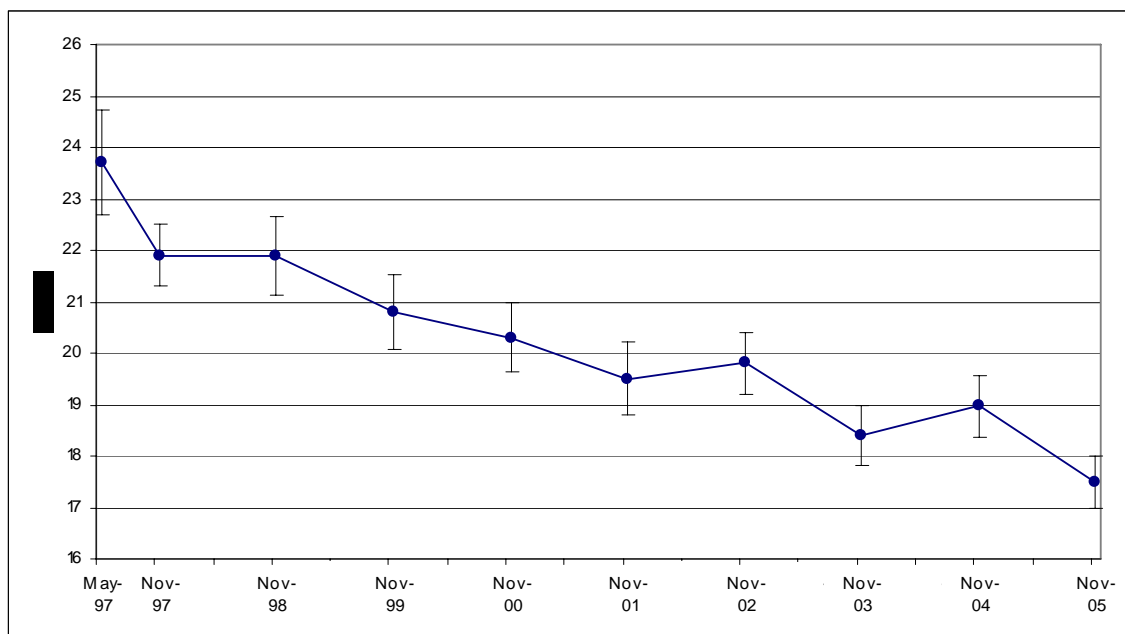
Changes in prevalence and associated 95% confidence intervals for the weighted enumerated sample are displayed in Figure 1.

Figure 1. Changes in smoking prevalence for the weighted enumerated sample and associated 95% confidence intervals



Changes in smoking prevalence for the unweighted informant sample and associated 95% confidence intervals are displayed in Figure 2.

Figure 2. Changes in smoking prevalence for the informant sample and associated 95% confidence intervals



Cigarette Consumption

Table 5 shows that, amongst smokers, the proportion of daily smokers has remained relatively stable at between 88% and 90% over the survey years, including the last year 2005.

Table 5. Reported cigarette consumption

Smokers	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May 1997 (n=1, 093)	Nov 1997 (n=2, 642)	Nov 1998 (n=1, 513)	Nov 1999 (n=1, 403)	Nov 2000 (n=1, 497)	Nov 2001 (n=1,293)	Nov 2002 (n=1,595)	Nov 2003 (n=1,581)	Nov 2004 (n=1,553)	Nov 2005 (n=1,491)
% daily	90%	89%	89%	89%	88%	89%	89%	89%	90%	88%
% weekly	10%	11%	11%	11%	12%	11%	11%	11%	10%	12%

Cigarette consumption is based on respondent's answers to the direct question 'How many cigarettes per day would you smoke on average?' Responses to this question included all smokers, irrespective of whether they smoke factory made or roll-your-own cigarettes and do not depend upon brand smoked.

Table 6 over the page shows the reported consumption patterns across the years. Logistic regression analyses were carried out to investigate changes in the proportions of heavy, medium and light consumption patterns across the years of the survey while one way analysis of variance was used to examine differences in means. The analyses showed that, for daily and weekly smokers combined, the mean number of cigarettes consumed per day in 2005 (13.0) was significantly lower than the mean daily consumption at the Benchmark and in all previous surveys up to and including 1999. For daily smokers, the mean daily consumption of cigarettes in 2005 (14.3) was also significantly lower than for all previous surveys up to and including 1999.

There was no significant difference in mean daily consumption of cigarettes (3.2) by weekly smokers in 2005 compared to previous surveys. Likewise, the mean number of days per week smoked in 2005 (2.9) was not significantly different from any of the previous years of the campaign.

Table 6. Reported 'factory made' and 'roll-your-own' cigarette consumption

Smokers	Benchmark May 1997 (n=1, 093)	Wave 1 Nov 1997 (n=2, 642)	Wave 2 Nov 1998 (n=1, 513)	Wave 3 Nov 1999 (n=1, 403)	Wave 4 Nov 2000 (n=1, 497)	Wave 5 Nov 2001 (n=1,293)	Wave 6 Nov 2002 (n=1,595)	Wave 7 Nov 2003 (n=1,581)	Wave 8 Nov 2004 (n=1,553)	Wave 9 Nov 2005 (n=1,491)
Daily smokers:	(n=966)	(n=2,344)	(n=1,338)	(n=1,242)	(n=1,307)	(n=1,132)	(n=1,414)	(n=1,394)	(n=1,392)	(n=1,317)
Mean cigs/day (sd)	16.7 (10.1)	17.0 (10.3)	16.8 (9.9)	16.2 (9.3)	15.5 (9.1)	15.0 (8.7)	15.7 (12.2)	14.9 (8.7)	14.4 (8.5)	14.3 (8.5)
% light smokers (14 or less)	42%	41%	42%	43%	45%	48%	48%	50%	51%	52%
% moderate smokers (15-24)	33%	34%	33%	34%	36%	33%	33%	34%	34%	33%
% heavy smokers (25+)	26%	26%	24%	23%	18%	19%	19%	16%	15%	15%
Weekly smokers:	(n=110)	(n=274)	(n=158)	(n=146)	(n=173)	(n=142)	(n=171)	(n=178)	(n=157)	(n=171)
Mean cigs/day (sd)	3.7 (3.7)	4.0 (4.2)	3.1 (2.8)	3.5 (3.6)	3.8 (4.2)	3.3 (3.0)	3.1 (3.4)	2.7 (3.5)	3.2 (3.5)	3.2 (4.0)
Mean days smoked/week (sd)	3.3 (1.3)	3.1 (1.5)	3.1 (1.4)	3.1 (1.6)	3.1 (1.4)	3.1 (1.4)	3.0 (1.4)	3.2 (1.5)	3.1 (1.5)	2.9 (1.4)
Daily & weekly smokers:	(n=1,075)	(n=2,618)	(n=1,496)	(n=1,388)	(n=1,480)	(n=1,273)	(n=1,585)	(n=1,572)	(n=1,547)	(n=1,487)
Mean cigs/day (sd)	15.4 (10.4)	15.7 (10.6)	15.3 (10.3)	14.8 (9.7)	14.1 (9.4)	13.7 (9.1)	14.4 (12.2)	13.5 (9.1)	13.3 (8.8)	13.0 (8.9)

(sd) = standard deviation

Logistic regression on the Table 6 data shows that, amongst daily smokers, the percentage of heavy smokers (15%) in 2005 has decreased significantly since the Benchmark, while the percentage of light smokers (52%) in 2005 has increased significantly since that time. The proportion of moderate smokers in 2005 (33%) shows no statistically significant trend during the period since May 1997.

The changes in cigarette consumption amongst daily smokers are shown in Figure 3. The changes in the mean cigarettes smoked per day for the daily and weekly smokers combined are shown in Figure 4.

Figure 3. Changes in percentage of light, moderate, and heavy cigarette consumption among daily smokers and associated 95% confidence intervals

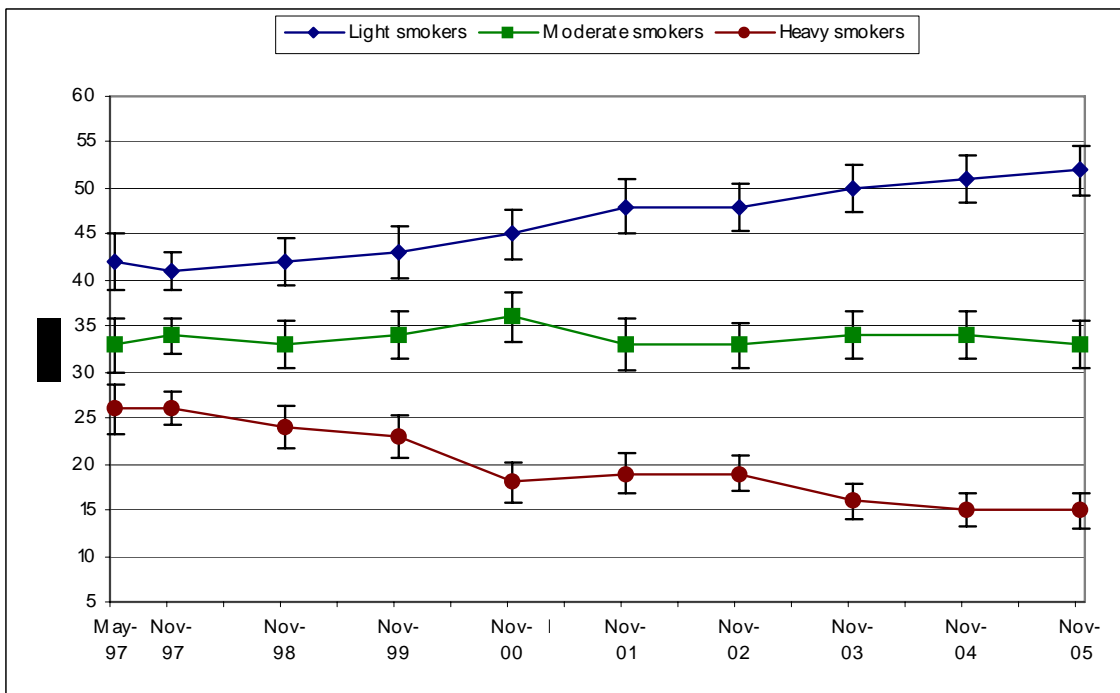
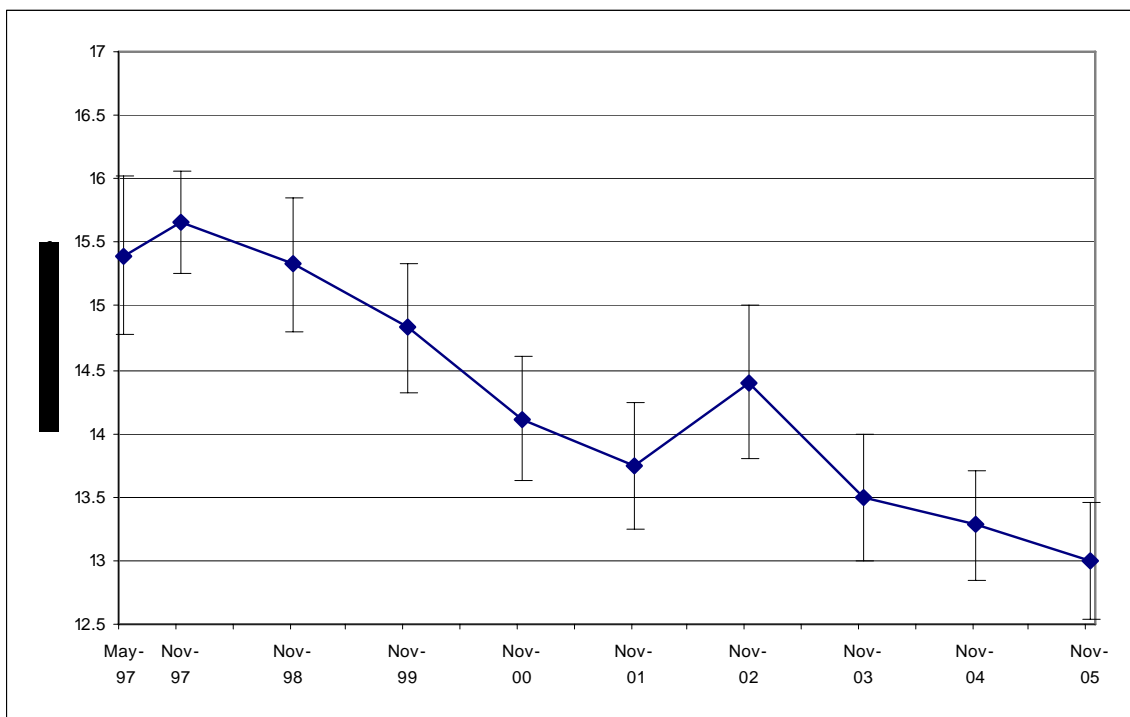


Figure 4. Changes in mean cigarettes consumed per day among daily and weekly smokers combined and associated 95% confidence intervals



Conclusion

The level of smoking prevalence in 2005 (18.4%) is well below that measured at benchmark in May 1997 (22.9%).

Analysis of weighted enumerated smoking prevalence has shown a downward overall trend over time, with a stronger downward trend in the early years of the campaign and some easing of the overall trend in more recent years. After having remained static at approximately 20% from 1999 to 2002, a new downward trend in smoking prevalence is now evident.

Among daily smokers, there has been a downward trend in the proportion of heavy smokers and an upward trend in the proportion of light smokers.

The overall trends and results for consumption are consistent with those identified in previous reports authored by the Centre for Behavioural Research in Cancer, however, prevalence rates, using enumerated data standardised to age and gender, differ slightly from those published prior to 2003.

Appendix

Smoking Prevalance by Socio-demographic Subgroups in the Informant and Enumerated Samples

Table A1 shows smoking prevalence by socio-demographic sub groups of the weighted enumerated sample.

Smoking prevalence amongst various socio-demographic groups generally follows the same pattern as overall prevalence, with the level of smoking prevalence lower in 2005 for all groups than that measured at the Benchmark in May 1997.

The biggest change in prevalence is amongst 18-29 year olds (31.4% at Benchmark and 23.3% in 2005), with 41-60 year olds and lower white-collar collar socio-economic status generally proving the more resilient to change.

Trend analysis suggests that, since May 1997, decline in smoking prevalence has been most marked amongst females, those working in upper white collar occupations, those aged 18 to 29 years and over 60's.

Table A2 shows smoking prevalence by socio-demographic sub groups of the unweighted informant sample.

Smoking prevalence showed a significant decline from Benchmark to 2005 for the unweighted informant sample. The informant sample shows an apparent reduction in smoking prevalence from Benchmark to 2005 across all of the demographic groups analysed.

Table A1. Smoking prevalence of weighted enumerated samples, by socio-demographic subgroups

	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May-97	Nov-97	Nov-98	Nov-99	Nov-00	Nov-01	Nov-02	Nov-03	Nov-04	Nov-05
Base	13,772	36,431	23,236	25,108	29,177	24,178	32,009	34,329	3,2841	42,066
Total	22.9%	21.7%	21.4%	20.4%	20.5%	20.5%	20.3%	20.0%	19.4%	18.4%
Gender										
Male	26.2%	24.5%	23.3%	22.5%	23.0%	22.8%	22.8%	22.6%	22.7%	20.9%
Female	19.9%	19.0%	19.7%	18.3%	18.1%	18.3%	17.9%	17.6%	16.3%	16.0%
Age										
18-29	31.4%	29.4%	28.7%	26.7%	28.6%	28.3%	26.2%	25.3%	25.0%	23.3%
30-40	28.0%	26.9%	27.5%	25.6%	25.3%	26.2%	25.8%	26.7%	24.1%	21.5%
41-60	21.0%	19.7%	18.8%	19.5%	18.6%	18.9%	19.5%	19.2%	19.4%	18.9%
61 plus	11.8%	11.4%	11.7%	9.9%	10.1%	9.2%	9.7%	8.9%	9.0%	9.6%
Socio-economic status										
Blue collar	29.1%	27.9%	28.0%	26.3%	26.4%	27.4%	28.0%	27.5%	27.2%	25.2%
Lower blue	31.9%	32.0%	30.3%	28.3%	27.9%	30.3%	29.8%	29.6%	27.9%	27.8%
Upper blue	27.2%	25.4%	26.4%	25.1%	25.4%	25.5%	26.6%	25.2%	26.5%	23.1%
White collar	20.6%	19.5%	19.2%	18.9%	19.2%	18.1%	17.9%	18.1%	17.7%	16.9%
Lower white	22.1%	21.8%	20.6%	20.6%	21.2%	19.7%	21.4%	20.5%	21.3%	20.5%
Upper white	19.3%	17.7%	18.0%	17.3%	17.5%	16.2%	16.1%	16.4%	15.5%	14.9%
Language spoken at home										
English	23.1%	21.8%	21.5%	20.6%	20.5%	20.5%	20.4%	20.3%	19.7%	18.6%
Other	17.7%	19.0%	18.4%	16.2%	19.5%	19.2%	17.5%	15.1%	14.8%	15.7%
Region										
Capital City	21.9%	21.6%	21.2%	19.7%	20.0%	19.8%	19.0%	19.1%	18.3%	17.5%
Other	24.5%	21.9%	21.9%	21.7%	21.3%	21.7%	22.4%	21.6%	21.7%	19.8%

Note: Socio-economic subgroups were based on main income earner's occupation, and those reporting no occupation were excluded in the coding of this variable

Table A2. Smoking prevalence of unweighted informant samples, by socio-demographic subgroups

	Benchmark	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9
	May-97	Nov-97	Nov-98	Nov-99	Nov-00	Nov-01	Nov-02	Nov-03	Nov-04	Nov-05
Base	6,657	17,712	11,156	12,271	13,804	11,898	15,979	16,993	16,385	20,778
Total	23.7%	21.9%	21.9%	20.8%	20.3%	19.5%	19.8%	18.4%	19.0%	17.5%
Gender										
Male	26.0%	24.6%	23.1%	22.8%	23.1%	22.0%	22.6%	20.9%	23.0%	19.3%
Female	22.0%	20.2%	21.1%	19.5%	18.5%	18.1%	18.1%	17.1%	16.7%	16.6%
Age										
18-29 years	35.7%	30.0%	30.2%	28.6%	30.5%	28.7%	28.6%	27.3%	26.7%	24.4%
30-40 years	27.8%	27.0%	27.6%	25.9%	25.2%	25.6%	25.6%	26.3%	24.3%	21.2%
41-60 years	21.5%	20.3%	19.3%	20.4%	19.2%	19.6%	20.7%	19.1%	20.0%	19.4%
61+ years	11.8%	11.3%	12.2%	9.3%	10.1%	8.5%	9.8%	9.0%	9.0%	9.4%
Socio-economic status										
Blue collar	30.0%	28.7%	28.0%	27.4%	26.9%	26.4%	28.2%	26.7%	27.2%	24.7%
Lower Blue	33.3%	32.3%	31.8%	29.5%	27.5%	29.8%	29.7%	28.8%	27.4%	28.0%
Upper Blue	27.8%	26.6%	25.3%	26.1%	26.5%	24.2%	27.0%	24.4%	27.0%	21.9%
White collar	20.8%	19.2%	19.1%	18.6%	18.3%	17.3%	17.9%	16.9%	17.2%	16.2%
Lower White	23.4%	22.0%	21.0%	20.2%	21.1%	18.6%	21.1%	19.2%	20.3%	20.1%
Upper White	18.2%	16.9%	17.4%	17.0%	15.8%	15.6%	16.2%	15.4%	15.3%	14.0%
Language spoken at home										
English	23.7%	22.0%	22.0%	20.9%	20.3%	19.6%	19.8%	18.6%	19.2%	17.7%
Other	21.9%	18.8%	18.4%	16.6%	19.5%	16.6%	19.3%	13.7%	14.0%	13.8%
Region										
Capital city	22.6%	21.6%	21.9%	19.8%	19.7%	18.7%	18.4%	17.6%	17.7%	16.3%
Other	25.1%	22.6%	21.8%	22.5%	21.2%	20.7%	21.8%	19.9%	21.2%	19.4%

Note: Socio-economic subgroups were based on main income earner's occupation, and those reporting no occupation were excluded in the coding of this variable

References

Wakefield M, Bobevski I. (2003). *Changes associated with the National Tobacco Campaign: Preliminary Report on Smoking Prevalence and Consumption, 1997-2002*. Prepared for the Australian Government Department of Health and Ageing, Canberra.