

Every cigarette is doing you damage

Evaluation of phase one of a public
information campaign

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Introduction

The first phase of the Health Promotion Agency's latest tobacco public information campaign was launched on 8 January 2002 and ran until 31 March 2002. It targeted adult smokers, aiming to convince them of the urgent need to stop smoking and to highlight the support available to smokers who are trying to quit.

Three television advertisements formed the main element of the campaign. The main advertisement 'Artery' was adapted from a campaign developed by the Commonwealth Department of Health and Aged Care, Australia, which had proved to be effective in reducing rates of smoking there. The Artery advertisement also addressed an issue raised during qualitative research with smokers in Northern Ireland, which indicated that, other than the link between smoking and lung cancer, smokers generally had limited awareness of the connection between smoking and specific health effects.¹

Two further advertisements were developed as part of the campaign – one aimed at men featuring two football fans, and a second aimed at women depicting a stressed mother of small children. Both advertisements highlighted the help and support available to smokers who are trying to quit, including nicotine replacement therapies (NRT) and a freephone helpline service funded as part of the campaign.

The helpline was an important element of the campaign, providing advice and support to many smokers as well as offering a means of directing them to local smoking cessation groups and services across Northern Ireland. The helpline operated for the duration of the campaign.

Methodology

Quantitative research was carried out to evaluate the effectiveness of the campaign. This research was implemented in two discrete elements.

- A pre-campaign survey was carried out in December 2001 to provide a benchmark against which the success of the campaign could be measured.
- A post-campaign survey was then carried out in April-May 2002 to assess the campaign's effects.

As around 29% of the population in Northern Ireland smoke, a telephone survey was decided to be the most efficient method of reaching the large sample of smokers required to facilitate sub-analysis of the data in the time available. Both surveys were implemented using Computer Assisted Telephone Interviewing.

For the pre-campaign survey a sample of 1,209 people was achieved, comprising 688 smokers or recent quitters and 521 non-smokers. The post-campaign survey yielded a sample of 1,286 people: 763 smokers/recent quitters and 523 non-smokers.

The questions asked in the benchmark study addressed health beliefs and attitudes towards smoking held by smokers and non-smokers, and quitting intentions and activity among smokers and recent quitters. These were repeated in the follow-up survey (with some minor variations) and additional questions were included to assess the impact of the campaign. See appendix for further details on the research design and implementations.

Evaluation objectives

The focus of the evaluation was to address the following:

- to assess the advertisements' effects on actions to quit;
- to detect a proportional shift in smokers' positions according to the 'Stages of Change' model;²
- to provide evidence for the specific informational effect of the campaign, ie an increase in knowledge on items that relate to campaign specific messages; and,
- to appraise awareness of, and learning from, the campaign.

Results

Recall and recognition: was the campaign seen and remembered?

Unprompted recall of advertising about tobacco was assessed in both surveys by asking all participants “During the past three months have you seen or heard any advertising campaigns on TV, radio, in the newspaper or anywhere else encouraging people to do things to improve their health?”. If participants said they had, they were then asked “What was (were) the advertising campaign(s) about?”.

Table 1: Unprompted recall of general health advertising and anti-tobacco advertising

	Benchmark %	Follow-up %
All participants		
Seen any health advertising in the past three months	74	85
Unprompted recall of anti-tobacco advertising	24	60
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>
All those who recalled having seen health-related advertising in the past three months		
Unprompted recall of anti-tobacco advertising	32	70
<i>Base</i>	<i>n=896</i>	<i>n=1,096</i>

There was an 11 percentage point increase in the proportion of those who reported seeing health advertising in the follow-up survey (85%) compared to the benchmark survey (74%). Of those who said they recalled having seen advertising about health topics, more participants in the follow-up survey mentioned advertising about tobacco unprompted (70%) than in the benchmark survey (32%). Of the entire sample, there was an increase from 24% to 60% of participants who spontaneously recalled anti-tobacco advertising.

Prompted recognition of campaign advertising is a measure of whether or not the respondent has been exposed to the advertising, and represents a diagnostic check on the proposed media schedule. Prompted recognition of the campaign advertising by all participants is presented in Table 2.

Interviewers read out a description of each of the three advertisements to participants and relayed the slogans “Every cigarette is doing you damage” and “Ever wanted to stop smoking but find sometimes that it is really hard?”.

Table 2: Prompted recognition of national tobacco campaign advertising (follow-up survey)

	Recognised campaign advertising when prompted %
All those who recalled having seen health advertising	
‘Artery’ advertisement	93
‘Smokers’ helpline and NRT’ advertisement (male actor)	61
‘Smokers’ helpline and NRT’ advertisement (female actor)	71
<i>Base</i>	<i>n=1,118*</i>

*This figure includes 22 respondents who replied ‘don’t know’ to recalling having seen health advertising

Recognition of the 'Artery' advertisement was reported by 93% of participants (who had previously reported seeing or hearing advertising campaigns on TV, radio, in the newspaper or anywhere else). The male version of the 'Smokers' helpline and NRT' advertisements, was recognised by 61% of participants, with the female version of this advertisement being recognised by 71% of participants.

Across the three advertisements in the campaign, an average recognition level of 75% suggests that the advertisements were highly salient and that they were seen by the majority of those participants who had reported seeing or hearing advertising campaigns on TV, radio, in the newspaper or anywhere else.

Appraisal of campaign advertising: did the campaign make smokers think about quitting?

Each advertisement was evaluated to assess whether smokers and recent quitters regarded it to be thought provoking, believable and relevant, and whether it would encourage them to stay off cigarettes. Table 3 presents the findings from the evaluation of each advertisement.

The 'Artery' advertisement, was reported to be the most thought provoking, with 69% of participants finding it *very thought provoking*. The corresponding figure for the male version of the 'Smokers' helpline and NRT' advertisement was 11%, and for the female version it was 23%.

The majority (65%) of current smokers and recent quitters found the 'Artery' advertisement to be *very believable*. This figure was 45% for the female helpline/NRT advertisement, and was lowest for the male helpline/NRT advertisement (24%).

Just over half (51%) of participants found the 'Artery' advertisement to be *relevant to them*. The corresponding figure for the male helpline/NRT advertisement was 19% and 24% for the female version. In addition, 23% of smokers and recent quitters reported that the 'Artery' campaign would *very much encourage them to stay off cigarettes*. This compared with 5% for the male helpline/NRT advertisement and 11% for the female one.

The findings from the evaluation of the separate advertisements in the campaign revealed that the 'Artery' advertisement is regarded by participants to be thought provoking, believable and relevant to them. Also, more smokers and recent quitters believed that the 'Artery' advertisement encouraged them to stay off cigarettes than either of the two promoting the smokers' helpline and NRT.

Table 3: Evaluation of 'Artery' and 'Smokers' helpline and NRT' advertisements

	'Artery' advertisement	'Smokers' helpline and NRT' advertisement (male actor)	'Smokers' helpline and NRT' advertisement (female actor)
	%	%	%
All who reported seeing the advertisement			
<i>Did you find this ad:</i>			
Very thought provoking	69	11	23
Somewhat thought provoking	20	37	39
Not at all thought provoking	10	52	38
Don't know	>0.5	1	>0.5
<i>Did you find this ad:</i>			
Very believable	65	24	45
Somewhat believable	28	49	39
Not at all believable	6	26	16
Don't know	1	1	>0.5
<i>Did you find this ad:</i>			
Very relevant to you	51	19	24
Somewhat relevant to you	33	33	38
Not at all relevant to you	15	48	38
Don't know	1	1	>0.5
<i>Base</i>	<i>n=1,040</i>	<i>n=686</i>	<i>n=794</i>
Smokers and recent ex-smokers who saw the advertisement only			
<i>And did this advertisement encourage you to stay off cigarettes?</i>			
Very much	23	5	11
Somewhat	37	19	26
Not at all	40	76	63
Don't know	1	0	>0.5
<i>Base</i>	<i>n=633</i>	<i>n=422</i>	<i>n=478</i>

Smokers who recognised the advertising campaign were asked "Thinking about this anti-smoking campaign as a whole, do you think it has made you more likely to quit, less likely to quit smoking or has it made no difference?". Table 4 shows that 58% of smokers who saw the advertising campaign indicated that it had made them more likely to quit smoking, 41% thought that it made no difference and 1% reported that it made them less likely to quit smoking, with 0.5% unable to say.

Table 4: Campaign attributed encouragement to quit

	Follow-up survey %
Smokers who recognised the campaign	
<i>Did this anti-smoking advertising make you more or less likely to quit?</i>	
More likely	58
No difference	41
Less likely	1
Can't say	>0.5
<i>Base</i>	<i>n=615</i>

Those who had recently quit smoking were asked whether the campaign advertising had helped them to stay quit, made it more difficult to stay quit or had no effect (Table 5). Although the number of recent ex-smokers in the sample is relatively low, more than two thirds of them (68%) reported that the advertising campaign helped them stay off cigarettes with less than a third (32%) reporting that it had no effect. These findings suggest that, for the majority of those who had recently quit smoking, the advertising campaign did indeed encourage them to stay off cigarettes.

Table 5: Campaign attributed encouragement to stay quit

	Follow-up survey %
Recent ex-smokers who recognised the campaign	
<i>Did this anti-smoking advertising make you more or less likely to stay quit?</i>	
Helped you stay off cigarettes	68
Had no effect	32
<i>Base</i>	<i>n=37</i>

Change in health beliefs and attitudes: is there an association with campaign exposure?

Participants were asked “*In your opinion are there any illnesses caused by smoking?*”. In the benchmark survey 90% of all participants indicated ‘yes’. This figure rose to 94% in the follow-up survey. Participants who answered ‘yes’ were asked to indicate which illnesses were caused by smoking, the interviewer noted the first mentioned and then prompted the respondent for other illnesses.

Table 6: Unprompted awareness of illness and damage caused by smoking

	Benchmark %	Follow-up %
All participants		
% believing that there are illnesses or damage caused by smoking	90	94
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>
Those who believe smoking causes illness/damage		
<i>Specific illness mentioned:</i>		
Stroke/vascular disease	6	8
Blocked arteries	3	6
Blocked blood vessels	2	4
High blood pressure	3	4
Circulation problems	0	>0.5
<i>Any artery illness/damage</i>	7	14
Asthma	11	14
Bronchitis	14	16
Lung cancer	50	52
Lung damage/kills lung cells	9	9
Respiratory disease	19	17
Emphysema	0.5	>0.5
<i>Any lung illness/damage</i>	103*	107*
Heart disease/heart problems	42	50
Cancer (unspecified)	50	47
Throat cancer	8	15
<i>Base</i>	<i>n=1,091</i>	<i>n=1,205</i>

* figures above 100% are attributed to participants providing multiple responses

The reporting of any type of *artery damage* doubled from 7% to 14% between the benchmark and follow-up surveys. High reported levels of *lung damage* were observed in both surveys (103% and 107%), and the reporting of *heart disease* increased from 42% in the benchmark survey to 50% in the follow-up survey.

Fewer participants in the follow-up survey (47%) compared to the benchmark survey (50%) reported *cancer (unspecified)* as an illness caused by smoking, however more in the follow-up (15%) specified *throat cancer* than in the benchmark survey (8%). (This rise in throat cancer awareness may have been related to media reports of the death of a well-known actor from throat cancer while the campaign was running.)

Participants in the benchmark survey were asked “*During the past six months have you learned anything new about the effects of smoking cigarettes on health?*”. The same question was asked of those in the follow-up survey with the time frame reduced to three months. There was an increase from 9% to 16% in the number of participants who reported learning something new in the months prior to the survey. At follow-up more than half (54%) of those who said they had learnt something new mentioned *fatty build up from advertisement* and 3% also said *every cigarette is doing you damage*.

Table 7: New learning about smoking and health in the past six months

	Benchmark %	Follow-up %
All participants		
% reporting learning anything new about the effects of smoking cigarettes on health in the last six/three months	9	16
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>
Those who reported learning something new		
<i>What did they learn?</i>		
Overall effects on body organs (bad health)	18	20
Damage, diseases and problems caused by smoking	29	0
Damages of passive smoking	14	3
More people (women) starting at younger age	6	0
New methods to help you quit (and effectiveness)	5	0
Fatty build up from advertisement	0	54
Emphysema	0	3
“Every cigarette is doing you damage” (campaign message)	0	3
Effects of smoking can take a long time to repair	0	2
<i>Base</i>	<i>n=110</i>	<i>n=203</i>

Participants were asked if they agreed or disagreed with a set of opinion statements (drawn from the current pack warnings about lung cancer, heart disease, emphysema and passive smoking) about whether smoking causes particular illnesses or whether their health would be improved if they quit smoking.

There was an increase from 88% at benchmark to 92% at follow-up in those who reported that smoking causes *heart disease*. Additionally there was an increase from 86% to 88% in those who reported that *smoking causes harm to others*. There was no change in the levels reporting that smoking *causes lung cancer or emphysema*; however, the proportion of participants agreeing that smoking causes both these illnesses was already very high (92% and 86%) in the benchmark survey.

Smokers were asked if it would *improve their health if they were to quit smoking*. A two percentage point increase in the proportion of smokers agreeing with this statement was reported between the benchmark and follow-up surveys, with an overall majority of 90% of smokers in the follow-up survey agreeing that their health would improve if they were to quit smoking.

Table 8: Level of agreement with opinion statements about smoking and health

	Benchmark %	Follow-up %
% of all participants agreeing with the following opinion statements		
Smoking causes lung cancer	92	92
Smoking causes heart disease	88	92
Smoking can cause harm to others	86	88
Smoking causes emphysema	86	86
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>
% of all participants disagreeing with the following statement		
The dangers of smoking have been exaggerated	74	75
Smoking can't be all that bad because many people smoke all their lives and live to a ripe old age	61	59
Smoking the occasional cigarette doesn't cause any damage to your health	56	61
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>
% of regular and occasional smokers agreeing with the following statement		
It would improve my health if I quit smoking	88	90
<i>Base</i>	<i>n=656</i>	<i>n=722</i>

Table 8 also shows little change in the percentage of respondents in the follow-up survey (75%) who disagreed with the statement that the health dangers of smoking have been exaggerated compared to the benchmark survey (74%). Slightly fewer in the follow-up survey (59% compared with 61% at benchmark) disagreed with the statement that *smoking can't be all that bad because many people smoke all their lives and live to a ripe old age*. More people in the follow-up survey disagreed with the statement that *smoking the occasional cigarette doesn't cause any damage* (61% compared with 56% at benchmark).

From Table 9 it can be seen that in the follow-up survey, more people said they believed that the statement *"Every cigarette is doing you damage"* is nearer to the truth than the statement *"You have to smoke for several years to do any damage to your health"* (87% compared with 83% at benchmark).

Table 9: Campaign-related beliefs

	Benchmark %	Follow-up %
% of all participants believing the statement to be true		
Every cigarette is doing you damage (as opposed to <i>"You have to smoke for several years to do any damage"</i>)	83	87
Smoking makes the body age faster	82	84
Smoking causes decay in the lungs	96	97
Smoking blocks up arteries with fatty deposits	77	92
Smoking causes damage to the genes in lung cells	87	84
<i>Base</i>	<i>n=1,209</i>	<i>n=1,286</i>

There was a negligible increase (2%) between the two surveys in the number of participants who thought that *smoking makes the body age faster* and those who believe *smoking causes decay in the lungs* (1%). However in the follow-up survey an increase of 15 percentage points (from 77% to 92%) was observed in the number of people who believed *smoking blocks up arteries with fatty deposits*. Slightly fewer people in the follow-up survey (84%) compared to the benchmark survey (87%), were of the opinion that *smoking causes damage to the genes in the lungs*.

Participants were asked to nominate which of the illnesses caused by smoking mentioned in Table 9 has the most impact on their thinking about smoking. The results for smokers and recent quitters (Table 10) show that *decay in the lungs* was the illness that smokers thought most about when they thought about smoking. Table 10 also shows an 11 percentage point increase (from 21% at benchmark to 32% at follow-up) in the number of smokers who thought most about *smoking blocking up arteries with fatty deposits*.

Table 10: Illnesses with most impact upon thinking about smoking for smokers and recent quitters

	Benchmark %	Follow-up %
Smoking causes decay in the lungs	54	44
Smoking blocks up arteries with fatty deposits	21	32
Smoking causes damage to the genes in lung cells	16	9
Smoking makes the body age faster	5	6
<i>Base</i>	<i>n=688</i>	<i>n=763</i>

Smokers were asked a number of questions to assess the extent to which they personalised the harm that smoking may cause them. Firstly, they were asked “*What do you think is the likelihood of becoming ill from your smoking if you continue to smoke?*”

There was a negligible reduction from the benchmark to the follow-up survey (from 60% to 58%) in the number of smokers agreeing that they are likely to become ill from their smoking. There was a two percentage point increase between the two surveys from 46% to 48% of smokers and ex-smokers agreeing that *smoking has probably already done harm to their body*.

Smokers were asked “*Do you feel good or bad about being a smoker, or do you have mixed feelings?*”. There was a negligible increase from 40% at benchmark to 41% at follow-up in the number of smokers who reported that they “*feel bad*” about being a smoker.

Table 11: Personal statements about smoking among smokers and ex-smokers

	Benchmark % agreeing	Follow-up % agreeing
Smokers only		
I am likely to become ill from smoking	60	58
I feel bad about being a smoker	40	41
<i>Base</i>	<i>n=656</i>	<i>n=722</i>
Smokers and ex-smokers		
Smoking has probably already done harm to my body	46	48
<i>Base</i>	<i>n=838</i>	<i>n=901</i>

Change in quitting intentions and activity: is there an association with campaign exposure?

The surveys employed three measures of quitting intention, each measuring different time periods. The stage of change for smokers was assessed by their response to two questions.² Initially smokers were asked “Are you seriously planning to quit smoking cigarettes in the next six months?”, with those smokers who responded negatively being designated as in ‘pre-contemplation’. Those who responded affirmatively were further asked “Are you planning to quit smoking cigarettes in the next 30 days?”. Smokers who were planning to quit in the next six months, but not within 30 days, were designated as ‘contemplators’ and those planning to quit within the next 30 days were designated as being in ‘preparation’.

Table 12 shows a decrease in the number of smokers in the preparation stage from 32% at benchmark to 19% at follow-up. The number in contemplation had gone up from 27% to 39%, and the number in pre-contemplation increased from 40% at benchmark to 42% at follow-up.

These findings show that at the time of the benchmark survey, more smokers were in preparation stage than at follow-up. In contrast at follow-up more smokers were contemplating their quit attempt within the next six months. One possible reason for this may have been the seasonal impact of the Christmas and New Year period. The benchmark survey was conducted in the month of December when it can confidently be assumed that many are thinking through their New Year resolutions. In contrast the follow-up survey was conducted in March by which time it could be assumed that quit attempts had been tried and failed, and some of those in preparation had moved back to contemplation.

Table 12: Intention to quit and stay quit among smokers and ex-smokers

	Benchmark %	Follow-up %
Smokers		
<i>Stage of change:</i>		
Pre-contemplation	40	42
Contemplation	27	39
Preparation	32	19
Action	5	5
<i>How often do you think about quitting?</i>		
At least once a day	37	37
Base	n=656	n=722
Smokers and ex-smokers		
<i>How likely is it you will be smoking a year from now?</i>		
Will be	38	35
Might or might not	19	23
Will not be	40	37
Base	n=838	n=901

All smokers and recent quitters were asked “A year from now, how likely is it that you will be smoking?”. Compared to benchmark (38%), slightly fewer smokers at follow-up (35%) thought that in a year’s time they would be smoking. More smokers at follow-up than at benchmark (23% compared with 19%) were unsure about whether or not they would be smoking a year from now. These findings are consistent with the higher incidence of smokers in the contemplation stage of change at follow-up (39%), and the lower number of smokers who reported they will not be smoking one year from now (37%). Confidence in reporting certainty at not being a smoker one year from now is lower in March than in December.

Smokers were asked “During the last two weeks how often have you thought about quitting smoking?”. In both the benchmark and follow-up surveys, 37% of smokers thought about quitting smoking at least once a day with 53% of smokers in both surveys thinking about quitting a minimum of once every few days.

Quitting activity was measured by asking smokers and recent quitters if they had ever tried to quit, if they had tried in the past month and whether they had resisted an urge to smoke in the past two weeks. At follow-up there was a one percentage point increase in the number of participants who had ever tried to quit, with an overall majority of 77% of smokers having tried to quit smoking. There was also an increase at follow-up (from 5% to 7%) in the percentage of participants who had tried to quit in the last month and in the percentage (from 43% to 47%) who had resisted an urge to smoke in the past two weeks.

Table 13: Quitting activity among smokers and recent quitters

	Benchmark %	Follow-up %
All smokers		
Ever tried to quit smoking	76	77
<i>Base</i>	<i>n=656</i>	<i>n=722</i>
Smokers who have ever tried to quit		
Tried to quit in the last month	5	7
<i>Base</i>	<i>n=497</i>	<i>n=555</i>
All smokers and recent quitters		
Resisted an urge to smoke in past two weeks	43	47
<i>Base</i>	<i>n=688</i>	<i>n=763</i>

To eliminate any seasonal effects on quitting activity, Table 14 shows that the one year quit rate increased from 19% to 24% in the follow-up survey. Should such quitting activity be maintained, these findings provide further reason to expect that an eventual reduction in population smoking prevalence may result.

Table 14: Quit rates among smokers and recent quitters

	Benchmark %	Follow-up %
Quit in the last year	19	24
<i>Base</i>	<i>n=688</i>	<i>n=763</i>

Getting help to quit

Table 15 shows that getting help to quit was more likely in the six month period prior to the benchmark survey than in the period prior to the follow-up survey. Although higher quit rates were disclosed in the follow-up survey (presented in Table 13 and Table 14), it would appear that more people are quitting smoking on their own without recourse to formal sources of help or support.

Table 15: Help to quit in the past six months

	Benchmark %	Follow-up %
	Smokers and ex-smokers who quit in past year	Smokers and ex-smokers who quit since the launch of the campaign
<i>Did you do anything to get help to quit in the past six months</i>		
Discussed smoking and health at home	56	56
Asked doctor for help to quit	22	20
Asked your pharmacist for help to quit	13	9
Used nicotine gum or patches	26	24
Bought another product to help you quit	11	11
Read 'How to Quit' literature	30	26
<i>Base</i>	<i>n=688</i>	<i>n=750</i>
For those who had done at least one of the above		
% that had done anything else to quit <i>(mainly exercised, found strategies to avoid places and people smoking, tried complementary therapies)</i>	12	12
<i>Base</i>	<i>n=486</i>	<i>n=529</i>
For smokers and ex-smokers who had heard of the smokers' helpline		
% that had rung a helpline	-	5
<i>Base</i>	<i>Question not asked</i>	<i>n=508</i>

Social support for quitting smoking was measured by asking regular and occasional smokers "During the past six months, has anybody in your household been trying to get you to quit smoking?" and if they said yes, they were then asked "What is this person's relationship to you?". Table 16 shows that overall smokers reported there was little change between the two surveys in household members trying to get them to quit. Except for 'Friend/flatmate', there was also little change in who was mentioned as encouraging them to quit. This is consistent with the information in Table 15, which shows no change in the percentage of smokers who said that they had discussed smoking at home.

Table 16: Household influence to quit

	Benchmark %	Follow-up %
Regular and occasional smokers		
Someone at home trying to get you to quit in the past six months	56	56
<i>Base</i>	<i>n=656</i>	<i>n=722</i>
Regular and occasional smokers who reported someone encouraging them to quit in past six months		
<i>Who was it?</i>		
Parent	17	17
Child	43	43
Sibling	10	7
Partner/spouse	42	44
Friend/flatmate	4	8
Other	4	3
<i>Base</i>	<i>n=365</i>	<i>n=403</i>

References:

1. Health Promotion Agency for Northern Ireland. Research and evaluation review 2000-2001. Belfast: Health Promotion Agency for Northern Ireland, 2002.
2. Prochaska JO, Redding CA, Evers KE. The transtheoretical model and stages of change. In: Glanz K et al. (Eds). Health behaviour and health education: Theory, research and practice. San Francisco: Jossey-Bass, 1997.

Appendix: Research design and implementation

Implementing the research

The research was implemented as two discrete elements:

- a pre-campaign survey; and,
- a post campaign survey/evaluation. The evaluation survey was similar to the pre-campaign survey.

Method

Both surveys were quantitative in nature and were implemented using Computer Assisted Telephone Interviewing. For each survey we felt that to meet the research objectives a reasonably large sample of smokers/recent quitters would be required to facilitate adequate sub-analysis of the data, particularly in respect of age, sex, social class and health board area. Overall for the pre-campaign survey a sample of 1,209 was achieved comprising 688 smokers/recent quitters and 521 non-smokers. The post-campaign survey produced a sample of 1,286 comprising 763 smokers/recent quitters and 523 non-smokers.

Working assumptions

In seeking to achieve target samples of approximately 1,200 cases for each element of the evaluation the following assumptions were applied:

- the proportion of smokers in the Northern Ireland adult population is 29% (source: Northern Ireland Continuous Household Survey);
- households in Northern Ireland include, on average, two adults aged 18 or over (source: Northern Ireland Life and Times Survey, Queen's University Belfast and University of Ulster); and,
- the participation rate among selected households we conservatively estimated to be approximately 65% (response rate).

When the above assumptions were applied to the research design, the pre-campaign survey produced a sample of 688 smokers/recent quitters with the post-campaign survey producing a sample of 763 smokers/recent quitters.

Sampling of households - pre-campaign survey

Stage one involved a simple random sample of telephone numbers drawn from an electronic copy of British Telecom's domestic listing.

Selecting individuals within households

Each household in the sample was contacted by the telephone research centre. In the first instance the interviewer made contact with a person aged 18 or older. This person was then asked to provide information on the characteristics of all persons aged 18 and over living in the household. This information related to age, gender and whether each person was a smoker/recent quitter or non-smoker. Up to two smokers or recent quitters and one non-smoker could be selected from each household to participate in the survey. In cases where there were more than two smokers/recent quitters or more than one non-smoker, a Kish Grid (random selection procedure) was applied to select individuals.

Quota controls

Smokers/recent quitters and non-smokers were selected from households on the basis of quota controls for sex, age and Health and Social Services Board area. A quota control procedure was programmed into the Computer Assisted Telephone Interview. The following tables present a profile of the samples produced for each survey.

Pre-campaign sample profile				
	Smokers		Non-smokers/ recent quitters	
	%	N	%	N
Gender				
Male	60	312	40	208
Female	55	376	45	313
Age group				
16-25	63	69	37	41
26-45	70	316	30	139
46-59	60	191	40	128
60-64	41	40	39	57
65+	32	72	68	156
Health Board				
Eastern	65	236	35	128
Northern	61	176	39	113
Southern	53	145	47	131
Western	47	131	53	149
Total	57	688	43	521

Post-campaign sample profile				
	Smokers		Non-smokers/ recent quitters	
	%	N	%	N
Gender				
Male	64	358	36	205
Female	56	405	44	318
Age group				
16-25	71	93	29	38
26-45	65	342	35	182
46-59	60	187	40	131
60-64	59	52	41	36
65+	37	79	63	136
Health Board				
Eastern	64	273	36	154
Northern	61	178	39	113
Southern	62	154	38	94
Western	51	143	49	138
Total	59	763	41	523

Questionnaire design

The questionnaires used in the study were based on a questionnaire originally devised to evaluate the anti-tobacco campaign implemented in Australia (1997) with some modifications. The pre-campaign and post-campaign questionnaires were identical with the exception of questions relating to specific campaign elements in the post evaluation survey.

Piloting the questionnaire

Both surveys were piloted on 20 cases. Outcomes from the pilot surveys were conveyed to the Agency and revisions made to the questionnaires before progressing to the main surveys.

Length of questionnaire

The average length of interview in the pre-campaign survey was found to be 22 minutes, and the average length of interview in the post-campaign survey was 25 minutes.

Fieldwork dates

Fieldwork for the pre-evaluation campaign commenced on 19 December 2001 and was completed on 7 January 2002. Fieldwork for the post-campaign survey commenced on 4 April 2002 and was completed on 10 May 2002.

Data handling and outputs

All data from the surveys were captured using Surveycraft software. These data in turn were exported to SPSS (Statistical Package for Social Scientists) for analysis.