

***Influence on smoking behaviour
and perceptions of cigarette
packaging in New Zealand***

Preliminary findings

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Contents

Section	Page
Introduction	3
Method	5
Results	9
Discussion	15
References	18
Appendix A: Questionnaire	19

Introduction

Tobacco smoking is the leading cause of preventable death in New Zealand (Ministry of Health, 2002). To counter this an organised tobacco control programme has existed in New Zealand since the mid 1980s (Laugesen & Swinburn, 2000). In December 2003 the New Zealand tobacco control programme was significantly strengthened through the passing of the amended Smoke-Free Environments Act. On 27 January 2004 New Zealand ratified the World Health Organization's Framework Convention on Tobacco Control (FCTC).

The objective of the FCTC is "to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke by providing a framework for tobacco control measures to be implemented by the Parties at the national, regional and international levels in order to reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke". To meet a mandatory obligation under Article 11 (Packaging and Labelling) of the FCTC New Zealand is required to increase the size of its health warnings on tobacco products. Cabinet has instructed the Ministry of Health to meet this obligation and at the same time to undertake a general review of health warnings and related tobacco packaging and labelling issues. The objectives of the review include:

- To ensure that New Zealand complies with the mandatory requirements of Article 11 of the Framework Convention on Tobacco Control, as a minimum;
- To determine what warnings, messages, and other information (including the possibility of pictorial warnings) should optimally be required to be displayed on all tobacco products;
- To review whether the use of certain terms, descriptors and markings should be regulated or prohibited on the grounds of actual or potential ability to mislead or deceive consumers.

In relation to this review an area of interest is labelling such as "light" or "mild" labels that are printed on cigarette packets. International research (Kozlowski & Pillitteri, 2001; Physicians for a Smoke-Free Canada, 2001) has found that terms such as "light" or "mild" can potentially mislead smokers into believing that these types of cigarettes are less harmful than regular cigarettes. A second area of interest is the effectiveness of current health warnings that are required to be printed on cigarette packets. The present study was commissioned by the Ministry of Health to contribute to the regulations review and, in particular, provide information on the two areas of interest mentioned above. The specific aims of the study were to:

- Identify prevalence of smoking "light" and "mild" labelled cigarettes
- Assess perceptions of why people smoke "light" and "mild" cigarettes instead of 'regular' cigarettes
- Assess levels of awareness of health warnings on cigarette packets
- Assess perceptions and self-reported impacts of cigarette packet health warnings

This study was incorporated into a wider study that was being undertaken as part of monitoring a second hand smoke campaign that was developed by the Health

Sponsorship Council and The Quit Group. The wider study aimed to monitor changes in attitudes and behaviours related to second hand smoke exposure in workplace and domestic environments.

The findings presented in this report are mainly descriptive and should be regarded as preliminary. It is expected that a more rigorous analysis will be conducted at a later date.

Method

Sample

Data for this report is based on a general population smoker (GPS) sample and a Maori population smoker (MPS) sample. These samples were drawn from a survey undertaken as part of monitoring a second hand smoke campaign and an additional 'smoker and recent quitter' survey. Fieldwork for all surveys was undertaken by TNS New Zealand.

The second hand smoke campaign survey used Computer Aided Telephone Interviewing to draw two samples. The first sample used a random digit dialing process to access private households. This sample included all ethnicities and was stratified to ensure that similar proportions of males and females were recruited. The target sample size for this survey was 1500 participants. In order to achieve this sample contact attempts were made to 9729 households. Of these contact attempts 6062 made a successful contact (the interviewer spoke to someone in that household). The remaining 3667 were unable to be contacted due to the phone being engaged or no one answering the telephone. If an interviewer was not able to contact a household after seven attempts it was removed from the sample list.

Of the 6062 households successfully contacted 2496 consented to participate. Of those who consented to participate 989 (40%) were found to be ineligible (see eligibility criteria below) leaving the final sample of 1507. Assuming that the proportions of people who were ineligible to participate were similar among those who refused and those who consented to participate in the survey¹ the consent rate for the general population survey was 41%. Applying this assumption to the overall figures gives an overall response rate of 26%.

The second sample was derived from electoral roll data². People who identified as Maori on the general electoral roll and Maori on the Maori electoral roll were randomly selected and their names and addresses were telematched to phone numbers. Only those Maori registered on the electoral roll who could be matched for surname, street address, and street number were included in the final sample list. This gave a list of numbers where there was a higher than average probability of contacting a Maori person. Numbers were then randomly selected from the list and contacted by interviewers. The target sample size for this survey was 900 participants. In order to achieve this sample contact attempts were made to 4385 households. Of these contact attempts 3954 made a successful contact (the interviewer spoke to someone in that household). The remaining 431 were unable to be contacted due to the phone being engaged or no one answering the telephone. If an interviewer was not able to contact a household after seven attempts it was removed from the sample list. Of the 3954 households successfully contacted 2714 consented to participate.

¹ Initial analysis of a 'non-respondents' survey suggests that those who did not agree to participate in the survey exhibited similar demographic characteristics to those who did agree to participate.

² Use of electoral role data to draw samples has been found to be a cost effective method for recruiting representative samples of Maori for other similar health surveys.

Of those who consented to participate 1812 (67%) were found to be ineligible leaving the final sample of 902. Assuming that the proportions of people who were ineligible to participate were similar among those who refused and those who consented to participate in the survey the consent rate for the general population survey was 69%. Applying this assumption to the overall figures gives an overall response rate of 62%.

In addition to the two samples described above a third 'smoker and recent quitter' sample was drawn to boost the number of smokers in the GPS and MPS smoker samples. Like the general population sample this survey used a random digit dialing process. The target sample size for this survey was 300 participants. In order to achieve this sample contact attempts were made to 8186 households. Of these contact attempts 6776 made a successful contact (the interviewer spoke to someone in that household). The remaining 1410 were unable to be contacted due to the phone being engaged or no one answering the telephone. If an interviewer was not able to contact a household after seven attempts it was removed from the sample list. Of the 6776 households successfully contacted 4956 consented to participate.

Of those who consented to participate 4656 (94%) were found to be ineligible leaving the final sample of 300. Assuming that the proportions of people who were ineligible to participate were similar among those who refused and those who consented to participate in the survey the consent rate for the general population survey was 73%. Applying this assumption to the overall figures gives an overall response rate of 61%.

General eligibility criteria to participate in the surveys were that:

- The participant had to be at least 15 years of age
- Was to have the next birthday in the household
- Had sufficient comprehension of the English language
- Met quota requirements (the sample aimed to include 50% male and 50% female)

In addition to be eligible for the Maori electoral roll sample respondents had to also identify as Maori. Eligibility also required that the smoker and recent quitter sample respondents had to be smoking at least monthly or have quit smoking in the past year.

For the present study the general population smoker (GPS) sample was derived from those who identified as daily, weekly or monthly smokers or recent quitters in the general population sample as well as those who were part of the smoker and recent quitter booster sample. This gave a GPS sample size of 624. The Maori population smoker (MPS) sample was derived from those who identified as daily, weekly or monthly smokers or recent quitters in the Maori and general population samples as well as those who identified as Maori in smoker and recent quitter booster sample. This gave a MPS sample size of 376. Table 1 presents demographic data on the GPS and MPS samples.

Table 1. Demographic characteristics of smokers and recent quitters from the general population (all ethnicities) and Maori population samples

	GPS sample (n=624)	MPS sample (n=376)
Gender		
Male	308	160
Female	315	216
Age		
15-18	36	31
19-25	119	76
26-35	160	96
36-45	155	81
46-55	89	66
56-65	48	18
66+	30	7
Prioritised Ethnicity		
Maori	137	376
New Zealand European	407	-
Pacific Island	52	-
Chinese	11	-
Indian	10	-
Refused	1	-
Other	63	-
Children in household		
One	152	64
Two	261	147
Three	94	79
Four	46	47
Five or more	29	19

Research tools

Interviews were carried out by TNS New Zealand using Computer Aided Telephone Interviewing (CATI). Data was transferred to Surveycraft for analysis.

Procedure

Both surveys described above used the same core smoking behaviour and attitude questions. Questionnaires were piloted in early March 2004. Fieldwork for the second hand smoke campaign survey took place between 4 March and 7 April. Fieldwork for the smoker and recent quitter booster sample took place from 7 April until the sample size of 300 was achieved. Relatively short survey periods (approximately one month) may have negatively impacted on the response rates.

Data was collated on to Surveycraft software. Extraneous variables were removed and new variables calculated. Probability weights were applied to the general population data according to age and ethnicity, so that the sample better reflected the population. The Maori sample was weighted only by age. From the 2001 census, frequencies of age by ethnicity for the eligible population were obtained. To calculate the probability weights, the estimated population frequencies by age and ethnicity were divided by the number of respondents in each group. Thus these weights are proportional to the number of people in the population that each survey respondent represents.

Results

The following results section is organised under the following topic areas:

- Type of cigarette smoked.
- Awareness and perceptions of health warnings and the Quitline phone number that appears on cigarette packs.

Most findings reported below are based on general population smoker and recent quitter (GPS) data. Findings relating to Maori attitudes and behaviours are based on Maori smoker and recent quitter (MPS) data.

Type of cigarette smoked (light, mild, regular)

Participants were asked about what type of cigarette they smoked or used to smoke. Those who replied "light" or "mild" were asked to further clarify their response, for example whether they were just "mild" or "extra mild" cigarettes. The most common type of cigarette smoked was "regular" (50%). Over a quarter of respondents reported that they smoked "milds" or "extra milds" (29%) and almost a tenth (9%) smoked "lights", "super lights" or "extra lights". These trends were similar across the various sub-groups. Maori were slightly more likely to smoke "regular" cigarettes and less likely to smoke "mild" cigarettes. The opposite appeared to be the case for females and older age groups who were less likely to smoke "regulars" and more likely to smoke "mild" cigarettes.

Table 2. Type of cigarette smoked

Type of Cigarette	% General population (n=624)	% Maori (n=376)	% Age				% Gender		% Current smoker (n=526)	% Daily smoker (n=469)
			15-25 (n=153)	26-35 (n=157)	36-55 (n=239)	56+ (n=76)	Male (n=308)	Female (n=315)		
Light	5	5	4	7	5	7	5	5	5	4
Super light	2	1	2	1	3	0	2	2	2	1
Extra light	2	2	1	1	3	3	1	3	2	2
Total (Lights)	9	8	7	9	11	10	8	10	9	7
Mild	21	14	19	20	21	24	19	23	20	19
Extra mild	8	7	7	4	11	12	6	11	10	8
Total (Milds)	29	21	26	24	32	36	25	34	30	27
Regular	50	56	56	49	49	41	55	45	53	55
Other	9	11	9	12	5	11	8	10	8	7
Don't know	4	5	1	5	3	5	5	2	3	3

Reasons for smoking "light" or "milds"

Those people who reported that they smoked "light" or "mild" cigarettes were then asked why they smoked these types of cigarettes instead of regular cigarettes.

Responses were categorised under ten pre-determined categories³. Responses reported under the “other” category were recorded verbatim. These “other” responses were subsequently analysed and common responses were re-coded under either the existing categories or two new categories. The two new categories were “price/cost” and “not as strong”.

In general, of those people who gave a reason for smoking “light” or “mild” cigarettes the most common response was “tastes better”. Males were more likely than females to report that “lights” and “milds” tasted better than regular cigarettes. The next most common response was that “light” or “mild” cigarettes were perceived to be “not as strong”. From the information available it is unclear whether responses under “not as strong” referred to the taste of the cigarette, the perceived effect the cigarette had on the respiratory system or the perceived health impacts of the cigarettes. Females were more likely than males to perceive “light” or “milds” to be “not as strong” as regular cigarettes. In general Maori respondents gave similar responses to the general population.

The variables “less tar”, “healthier”, “less nicotine”, “less chemicals/additives”, “less addictive” and “easier to quit” are associated with perceptions that “light” or “mild” cigarettes have less associated health risks compared to regular cigarettes. When responses to these variables are combined almost a quarter of respondents perceived that “light” or “mild” cigarettes had less associated health risks than regular cigarettes.

Table 3. Common reasons given for smoking “lights” or “milds”

Reasons	% General population (n=236)	% Maori (n=100)	% Age				% Gender		% Current smoker (n=191)	% Daily smoker (n=162)
			15-25 (n=50)	26-45 (n=52)	36-55 (n=101)	56+ (n=33)	Male (n=99)	Female (n=137)		
Tastes better	22	20	26	22	21	17	27	17	22	23
Not as strong	15	10	18	12	15	17	11	19	18	18
Less tar	10	13	12	17	9	4	9	11	11	13
Feels easier on my chest	8	8	9	6	7	13	9	8	7	8
Healthier	7	4	5	3	11	4	9	6	6	6
Less nicotine	3	7	5	3	2	4	3	3	4	3
Less chemicals /additives	2	4	2	0	3	4	2	2	3	3
Less addictive	2	3	5	2	1	2	4	1	2	3
Easier to quit smoking	2	1	2	0	2	2	2	2	2	3
Price/cost	1	2	2	2	0	2	0	2	1	2
Don't know	21	18	15	24	22	23	16	24	19	18
Other	11	18	14	12	10	11	15	9	11	7

³ The pre-determined categories were: “tastes better”, “less tar”, “feels easier on my chest”, “healthier”, “less nicotine”, “less chemicals /additives”, “less addictive”, “easier to quit smoking”, “don’t know” and “other”.

Menthol cigarette smoking

All respondents were asked whether they smoked menthol cigarettes. One fifth of the general population and a quarter of the Maori population indicated that they smoked menthols. There appeared to be no trends in smoking menthols according to age group. Females were more likely to smoke menthols than males (females 25% cf. males 16%).

Table 4. Proportions smoking menthol cigarettes

	% General population (n=624)	% Maori (n=376)	% Age				% Gender		% Current smoker (n=526)	% Daily smoker (n=469)
			15-25 (n=153)	26-35 (n=157)	36-55 (n=239)	56+ (n=76)	Male (n=308)	Female (n=315)		
Yes	20	26	16	26	20	20	16	25	19	17
No	80	74	84	74	80	80	84	75	81	83

Awareness of health warnings

Almost all participants indicated that they were aware of health warnings that appear on cigarette packets. Respondents aged 56 years and over were slightly less likely to indicate that they were aware of health warnings, as were males.

Table 5. Awareness of health warnings on cigarette packets

	% General population (n=624)	% Maori (n=376)	% Age				% Gender		% Current smoker (n=526)	% Daily smoker (n=469)
			15-25 (n=153)	26-35 (n=157)	36-55 (n=239)	56+ (n=76)	Male (n=308)	Female (n=315)		
Yes	96	97	96	95	97	91	93	98	97	97
No	4	3	4	5	3	8	7	2	3	3

Those who said that they were aware of health warnings were asked to recall unprompted as many of the health warnings that appear on cigarette packets as they could. Table 6 presents proportions of respondents who were able to correctly recall health warnings. In general the most commonly recalled health warning was "Smoking when pregnant harms your baby". Those most likely to recall this warning were younger age groups and females. The next most common warning recalled was "Smoking causes lung cancer". The least common health warning recalled was "Ka mate koe te kai hikareti". Proportionately twice as many Maori, however, were able to recall this warning compared to the general population. In general, it appears that younger participants were more likely to be able to correctly recall health warnings.

Table 6. Health warnings from cigarette packets correctly recalled

	% General population (n=558)	% Maori (n=341)	% Age				% Gender		% Current smoker (n=508)	% Daily smokers (n=469)
			15-25 (n=146)	26-35 (n=149)	36-55 (n=232)	56+ (n=69)	Male (n=286)	Female (n=310)		
Smoking when pregnant harms your baby	62	57	75	69	53	50	54	69	63	63
Smoking causes lung cancer	55	50	56	62	51	50	56	54	55	57
Smoking causes heart disease	30	27	34	31	27	33	31	30	31	33
Smoking kills	29	23	35	25	27	29	32	26	30	29
Your smoking can harm others	18	13	24	18	16	14	17	19	19	20
Smoking is addictive	10	11	11	12	10	5	11	9	11	11
Ka mate koe te kai hikareti	6	12	6	7	5	6	4	7	6	5
Other	12	15	7	10	17	12	9	15	12	11
Don't know	2	2	1	0	4	0	1	2	1	1

Impact of health warnings on behaviour

Those respondents who indicated that they were aware of health warnings were asked if this awareness had influenced them to engage in any of the activities listed in Table 7⁴. The most common reported impact was that respondents had thought about quitting smoking. Maori were more likely to have thought about quitting smoking in comparison to the general population. The next most common response for both the general population and Maori was “thought about the dangers of smoking”, then “made a quit attempt”. Some respondents reported that they had called the 0800 number that appears on cigarette packets (14% general population and 22% Maori).

Table 7. Reported impacts of health warnings on behaviour

	% General population (n=624)	% Maori (n=376)
Thought about quitting smoking	75	79
Thought about the dangers of smoking	70	74
Made a quit attempt	67	73
Reduced how much you smoke	57	62
Discussed the health warning with others	46	47
Covered up the health warning	15	14
Rang the 0800 number	14	22

Agreement with health warnings

Participants were read out each of the health warnings that appeared on cigarette packets that were available at the time of the survey. For each they were asked to indicate their level of agreement. Table 8 presents agreement with health warnings among the general population. The most commonly agreed to statement⁵ was that “smoking is addictive”. This was followed by “smoking causes lung cancer” and then

⁴ This was a prompted response question.

⁵ This was calculated by combining the “strongly agree” and “slightly agree” categories.

“your smoking can harm others”. It appears that the lowest level of agreement was for “smoking causes heart disease” and “smoking kills”. However, it should be noted that most (81%) participants strongly or slightly agreed with both of these statements.

Table 8. Agreement with health warnings among the general population

	% Strongly agree	% Slightly agree	% Neither / nor	% Slightly disagree	% Strongly disagree	% Don't know
Smoking is addictive	85	9	2	1	2	0
Smoking causes lung cancer	67	21	3	4	3	3
Your smoking can harm others	59	26	4	4	4	3
Smoking when pregnant harms your baby	70	13	3	4	4	6
Smoking kills	61	20	5	6	6	2
Smoking causes heart disease	58	23	5	4	4	6

Table 9 presents agreement with health warnings among the Maori population. Similar to the general population, the most commonly agreed to statements among Maori participants was that “smoking is addictive”. This was followed by “smoking causes lung cancer” and then “your smoking can harm others”. It appears that the lowest level of agreement was for “smoking causes heart disease” and “smoking when pregnant harms your baby”. However, it should be noted that most (81%) participants strongly or slightly agreed with both of these statements.

Table 9. Agreement with health warnings among the Maori population

	% Strongly agree	% Slightly agree	% Neither / nor	% Slightly disagree	% Strongly disagree	% Don't know
Smoking is addictive	88	7	1	2	3	0
Smoking causes lung cancer	72	16	4	2	3	3
Your smoking can harm others	63	24	4	4	3	2
Smoking kills	63	20	5	6	4	2
Smoking when pregnant harms your baby	68	13	4	4	5	6
Smoking causes heart disease	62	19	5	3	4	7

Awareness of Quitline number

Those respondents who were aware of the health warnings were asked if they knew what the phone number that appeared on cigarette packaging below the health warning referred to. In general, around half of all respondents did not know what the health warning referred to. Just under a third of respondents in all groups said that the number was for the Quitline. Awareness that the number was for the Quitline appeared to be slightly higher among younger age groups and females. Few respondents thought that the number was to get information on smoking or for product complaints.

Table 10. Perceptions of what phone numbers on cigarette packages are for

	% General population (n=624)	% Maori (n=376)	% Age				% Gender		% Current smoker	% Daily smoker
			15-25	26-35	36-55	56+	Male	Female		
Quitline/quitting support	30	28	31	34	29	19	26	33	30	31
Information on smoking	2	4	1	4	1	1	2	2	2	2
Product complaints	0	1	1	0	0	1	0	0	0	0
Other (please specify)	0	13	1	0	0	1	1	0	0	1
Don't know	48	46	46	44	50	49	46	49	48	47
Refused	12	9	10	11	11	24	18	7	11	9

Use of Maori language in health warnings

All participants were asked whether health warnings on cigarette packets should appear in Maori and/or English. Most respondents indicated that warnings should appear in both Maori and English. General population participants were more likely than Maori to support having warnings in both languages. Few, if any, respondents indicated that health warnings should appear in Maori only.

Table 11. Languages in which participants felt cigarette pack health warnings should appear in

	% General population (n=624)	% Maori (n=376)
English only	13	18
Maori only	0	0
Both Maori and English	83	71
Don't know	3	10

Discussion

The following discussion section is organised according to the research aims identified in the introduction section of this report.

Common types of cigarettes smoked

While respondents most commonly smoked "regular" cigarettes, almost two fifths reported that they smoked "light" or "mild" cigarettes. This finding suggests that "light" or "mild" smoking prevalence is lower in New Zealand compared to other developed countries. In Canada it has been found that 65% of cigarette smokers prefer 'light/mild or ultra/extra light/mild' cigarettes (Statistics Canada, 2001). Reasons for this difference may include differences in the way the information was collected, differences in the availability and promotion of these types of cigarettes or other differences in smoker preferences.

Within the present study "mild" cigarettes were reported to be more commonly smoked than "light" cigarettes. Further investigation would be useful to establish why this is the case. Females were more likely to smoke "light" or "mild" cigarettes compared to males, suggesting that these labels are particularly appealing for females. Similar gender differences in "light" or "mild" cigarette smoking have been observed in studies undertaken within Canada (Statistics Canada, 2001).

Reasons why respondents smoked 'light' and 'mild' cigarettes instead of 'regular' cigarettes

Common reasons people gave for why they smoked "light" or "mild" cigarettes tended to relate to positive sensory experiences with these types of cigarettes. For example, the most common response was that "light" or "mild" cigarettes "tasted better", followed by they were perceived as "not as strong". Research suggests that positive sensory experiences with "light" or "ultra light" cigarettes are associated with beliefs that these types of cigarettes are less harmful than regular cigarettes (Shiffman, Pillitteri, Burton, Rohay, & Gitchell, 2001a). As a result of these and similar findings Shiffman, Pillitteri, Burton, Rohay and Gitchell (2001b) recommended that health messages should be tailored to counter these beliefs.

Evidence suggests that "light" cigarettes were initially introduced in the United States during the 1960's to counter growing health concerns following publication of studies undertaken during the 1950's demonstrating a link between lung cancer and smoking (Kozlowski & Pillitteri, 2001). Tobacco industry representatives have since claimed that the tobacco industry uses labels such as "light" to aid in product positioning and that these labels do not necessarily relate to the cigarettes being less harmful than regular cigarettes. However, almost a quarter of respondents in the present study who smoked "light" or "mild" cigarettes perceived that that these types of cigarettes had less associated health risks compared to regular cigarettes. Similar relationships have been found in studies conducted overseas (Kozlowski & Pillitteri, 2001; Physicians for a Smoke-Free Canada, 2001). Therefore it seems that there may be some confusion as to what the labels represent. Such confusion may be compounded by other industries using similar labelling (in particular "light") to promote the health benefits of their products.

Evidence also suggests that “light” cigarettes provide no benefit to a smokers’ health compared to regular cigarettes (National Cancer Institute, 2003). If we assume that “mild” cigarettes also provide no health benefits then findings from the present study suggest that not only do “light” or “mild” labelled cigarettes provide a confusing message to smokers but they may also be misleading. If this is the case there may be reason for the New Zealand government to ban the use of labels such as “light” and “mild” on the grounds of protecting the health of New Zealander’s.

A fifth of respondents reported that they smoked menthol cigarettes. Maori, females and people aged 26 to 35 were the most likely to smoke this type of cigarette. Literature suggests that people who smoke menthol cigarettes are at higher risk of morbidity and mortality compared to non-menthol cigarette smokers (NAAPI, 2004). Among Maori and females higher levels of menthol cigarette smoking could potentially exacerbate tobacco-related morbidity and mortality.

Awareness of health warnings on cigarette packets

There was a very high level of awareness that there were health warnings on cigarette packets. The most commonly recalled health messages were “smoking when pregnant harms your baby” and “smoking causes lung cancer”. It appears that respondents were more likely to recall health warnings that referred to specific health issues (e.g. lung damage) than general issues (e.g. smoking kills). Younger people and females had higher levels of recall of the “smoking when pregnant harms your baby” message. This may be due to pregnancy being a more salient and relevant issue for younger people and females. Research suggests that ‘relevance’ is an important issue when developing messages aimed at encouraging people to quit smoking (Hill, Chapman & Donovan, 1998). Therefore, when developing health warnings consideration should be given to ensuring that they are relevant to specific priority groups.

Perceptions of health warning on cigarette packets and self-reported impacts on attitudes and behaviours

Most respondents reported that they had thought about quitting, made a quit attempt or reduced the amount of tobacco smoked as a result of reading the health warnings found on cigarette packets. It should be noted that impacts on behaviour and attitudes were self-reported and may therefore be subjective.

There was a relatively high level of agreement with the health warnings found on cigarette packets. The message “smoking is addictive” gained the highest level of agreement. Research suggests that ‘believability’ is an important consideration for messages aimed at encouraging people to quit smoking (Hill, Chapman & Donovan, 1998). High agreement with health messages on cigarette packets suggests that they are believable.

In general the above findings suggest that health warnings on cigarette packets are effective for encouraging people to consider quitting smoking and should continue to be developed. Respondents were also supportive of having health warnings displayed in both English and Maori on cigarette packets.

Availability of quitting support is thought to increase the likelihood of a person making a quit attempt (Hill, Chapman & Donovan, 1998). Display of the Quitline number on cigarette packets may address this issue. However, in general less than a third of

respondents were aware that the 0800 778 778 number that appeared on cigarette packets referred to the Quitline. To address this issue there may need to be clarification on cigarette packets as to what the phone number is for. This may also increase the number of people calling the Quitline for quitting support.

Conclusions

- A number of people perceived “light” or “mild” labelled cigarettes to be less harmful than regular cigarettes suggesting that these labels are misleading.
- “Light” or “mild” labeled cigarette packets appear to be particularly appealing for females.
- Availability and use of menthol cigarettes may exacerbate morbidity and mortality associated with tobacco use among females and Maori.
- There are high levels of awareness and belief in current Government health warnings on cigarette packets.
- Future health warnings should appear in both English and Maori.
- There needs to be greater detail on what the 0800 778 778 phone number that appears on cigarette packets refers to.
- Future research should provide more in-depth analysis on data that was used for this report. This could include a literature review to be included within the introduction of the report, testing of hypotheses and provision of confidence intervals where appropriate. Future research could also further explore the degree to which “light” or “mild” cigarettes are misleading and any subsequent impacts on smoking behaviour (e.g. whether they are seen as substitutes for quitting). It would also be useful to investigate reasons as to why Maori, females, and those aged 26 to 35 are more likely to smoke menthol flavoured cigarettes. Finally, if the government does require that “light” and “mild” labelling on cigarette packets be removed it would be useful to evaluate any impacts on smoking behaviour, ideally measured through a longitudinal study.

References

- Hill, D., Chapman, S. & Donovan, S. (1998). The return of scare tactics. p 5-8, Vol. 7: *Tobacco Control*.
- Kozlowski, L.T. and Pillitteri, J.L. (2001). Beliefs about "light" and "Ultra Light" cigarettes and efforts to change those beliefs: an overview of early efforts and published research. *Tobacco Control, 10 (Suppl 1)*, i12-i16
- Laugesen, M. and Swinburn, B. (2000). New Zealand's tobacco control programme 1985-1998. *Tobacco Control, 9*, 155-62.
- Ministry of Health. (2002). *Tobacco Facts*. Ministry of Health: Wellington.
- NAAPI (Retrieved 13 May 2004). *Fact Sheet: Menthol in cigarettes*. National Association of African Americans for Positive Imagery. <<http://www.naaapi.org/default.asp>>
- National Cancer Institute (2003) (Retrieved 28 May 2004). *The truth about "light" cigarettes: questions and answers*. <<http://cis.nci.gov/fact/3-74.htm>>
- Physicians for a Smoke-Free Canada. (2001). *Canada Tobacco Use Monitoring Survey: Smokers' beliefs about 'light' cigarettes*. Canada: Physicians for a Smoke-Free Canada.
- Shiffman, S., Pillitteri, J.L., Burton, S.L., Rohay, J.M. and Gitchell, J.G. (2001a). Smokers' beliefs about "light" and "ultra light" cigarettes. *Tobacco Control, 10 (Suppl 1)*, i17-i23
- Shiffman, S., Pillitteri, J.L., Burton, S.L., Rohay, J.M. and Gitchell, J.G. (2001b). Effect of health messages about "light" and "ultra light" cigarettes on beliefs and quitting intent. *Tobacco Control, 10 (Suppl 1)*, i24-i32
- Statistics Canada. (2001). (Retrieved 28 May 2004). *Canadian tobacco use monitoring survey: 2000*. <<http://www.statcan.ca/Daily/English/010529/d010529c.htm>>

Appendix A: Questionnaire

LIGHT, MILD, AND REGULAR CIGARETTES

Q33A IF Q25 = 1 ASK: When you were smoking what type of cigarette did you usually smoke? For example were they described as light, mild, or regular?

OTHERWISE ASK: What type of cigarette do you usually smoke? For example are they described as "light", "mild" or regular?

SINGLE RESPONSE

PROBE FOR CLARIFICATION

DO NOT READ OUT

Light	01	GO TO Q33B
Super light	02	GO TO Q34
Extra light	03	GO TO Q34
Mild	04	GO TO Q33C
Extra mild	05	GO TO Q34
Regular	06	GO TO Q35
Other (Please specify)	98	GO TO Q35
Don't know	09	GO TO Q35

Q33B IF Q33A = 1 ASK: Is that "light", "super light" or "extra light"?

Light	1	GO TO Q34
Super light	2	
Extra light	3	
Don't know	9	

Q33C IF Q33A = 4 ASK: Is that "mild" or "extra mild"?

Mild	1
Extra mild	2
Don't know	9

Q34 IF Q25 = 1 ASK: Why did you smoke light/mild cigarettes as opposed to regular cigarettes?

OTHERWISE ASK: Why do you smoke light/mild cigarettes as opposed to regular cigarettes?

DO NOT READ OUT

MULTIPLE RESPONSE POSSIBLE PROBE TO NO

Less tar	01
Healthier	02
Less addictive	03
Feel easier on my chest	04
Taste better	05
Less nicotine	06
Less chemicals/additives	07
Easier to quit smoking	08
Don't know	09
Other (please specify)	98

Q35 IF Q25 = 1 THEN ASK: When you were smoking did you smoke menthol cigarettes?

OTHERWISE ASK: Do you smoke menthol cigarettes?

Yes	01
No	02
Don't know	98
Refused	07

HEALTH WARNINGS

I am now going to ask you some questions about health warnings that appear on cigarette packets.

Q36 IF Q25 = 1 ASK: When you were smoking did you ever notice the health warnings on cigarette packets?

OTHERWISE ASK: Have you ever noticed the health warnings on cigarette packets?

Yes	01	CONTINUE
No	02	GO TO Q41
Don't know	09	GO TO Q41
Refused	07	GO TO Q41

Q37 Can you recall any health warnings?

Yes	01	CONTINUE
No	02	GO TO Q41
Don't Know	09	GO TO Q41
Refused	07	GO TO Q41

Q38 What do these health warnings say?

DON'T READ

MULTIPLE RESPONSE

PROBE TO NO (ARE THERE ANY OTHERS YOU KNOW?)

Smoking causes lung cancer	01
Smoking is addictive	02
Smoking kills	03
Smoking causes heart disease	04
Smoking when pregnant harms your baby	05
Your smoking can harm others	06
Ka mate koe te kai hikareti	07
Other (please specify)	08
Don't know	09
Refused	97

Q39 Have you ever done any of the following **because** of the health warnings on cigarette packets?

IF NECESSARY: This includes health warnings that appear on the back and front of the cigarette packs

READ OUT

Activity	Yes	No	Don't know
Thought about the dangers of smoking	01	02	09
Thought about quitting smoking	01	02	09
Made a quit attempt	01	02	09
Covered up the health warning	01	02	09
Discussed the health warning with others	01	02	09
Rang the 0800 number	01	02	09
Reduced how much you smoke	01	02	09

Q40 Under the health warning on cigarette packets there is an 0800 number. If you were to dial this number who would it put you in contact with?

IF NECESSARY: The number is 0800 778 778

DON'T READ

MULTIPLE RESPONSE

Quitline/quitting support	01
Information on smoking	02
Product complaints	03
Other (please specify)	98
Don't know	09
Refused	07

Q41 I am going to read out six statements that appear as health warnings on cigarette packets. Could you please tell me whether you agree or disagree with the statements?

Is that strongly agree/disagree or slightly agree/disagree?

READ IN ROTATED ORDER	Strongly disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Strongly agree	Don't know
Smoking causes lung cancer	01	02	03	04	05	09
Smoking is addictive	01	02	03	04	05	09
Smoking kills	01	02	03	04	05	09
Smoking causes heart disease	01	02	03	04	05	09
Smoking when pregnant harms your baby	01	02	03	04	05	09
Smoking can harm others	01	02	03	04	05	09

Q42 Do you think health warnings on cigarette packets should be in.....

READ

English only	01
Maori only	02
Both English & Maori	04
Don't know (DON'T READ)	09
Refused (DON'T READ)	07