Smoking Health Warnings Study

The effectiveness of different (pictorial) health warnings in helping people consider their smoking-related behaviour

Ministry of Health

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Executive summary

This section presents the key findings from n=100 face-to-face interviews conducted by senior interviewers, at BRC's Field Department, between 26 March and 18 April 2004. The overall research objective was to test pictorial and text health warnings provided by the Ministry of Health, in terms of whether or not they prompt people to consider their smoking-related behaviour. Where applicable, messages were tested in the form of mock-up cigarette packets, to ensure as realistic a basis as possible for respondents to consider and react to the warning messages. A detailed explanation of the background, specific objectives, method and comprehensive findings for this study can be found in the main body of the report.

Key findings

Provided below are key findings, summarised in terms of five discrete warning message areas, a "call to action" Quitline message, and cigarette pack inserts. Key findings related to peoples' perception of Ministry of Health association with smoking health warnings and preferred communication channels are also summarised.

1. Children, second-hand smoke and role modelling messages

- Six smoking health warning messages were tested (Images 1 to 6).[1]

"You're not the only one smoking this cigarette" (Image 3) was the <u>most</u> likely to have an impact or communicate the effects of smoking. Results show that this image clearly conveyed the potentially fatal physical dangers of second-hand smoke and/or smoking while pregnant. The <u>cause-and-effect</u> implication shown by the pictures and supported with a clear, bold message contributed to the main reasons for selection.

2. Physical Health messages

- Eleven warning messages were tested (Images 7 to 17).

"Smoking causes blindness" (Image 10) rated <u>most</u> likely to impact in terms of physical health issues that surround smoking. The shock-factor of potential pain or loss to one of the most essential parts of the body, combined with the informative value of the associated text <u>(providing new information to many)</u> seemed to have a notable impact on respondents.

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[1] To aid readability, throughout this report we have referred to "Image(s)", whether a pictorial or text message. Specific images are indexed with a number that relates to the specific warning message, and all warning message images are illustrated in Appendix D, as well as in a full published version of this report, available on the website:
http://www.ndp.govt.nz/tobacco/smokefreeenvironments/reviewofregulations01.html.

3. Poison message

- One warning message was tested (Image 18).

"Where there's smoke there's hydrogen cyanide" (Image 18) provoked a mixed response. Most felt that the idea of illustrating chemicals that smokers are exposed to was good, however a variety of suggestions (e.g. more colour, clearer picture, larger writing) offered ways of delivering the message more effectively.

4. Quitting help messages

- Four warning messages were tested (Images 19 to 22).

Respondents liked the quitting related packets which showed "happy families" for their positive aspect and because they showed potential gains to family life as a result of quitting. As such, Image 20 (*"Quitting now will improve your health"*) and Image 22 (*"It's about Whänäu, call Quitline on 0800 778 778"*) rated most highly. Respondents liked the size and boldness of the text in all four quitting help messages.

5. Addiction messages

- Two warning messages were tested (Images 23 and 24).

Of the two addiction warning messages, *"Cigarettes are highly addictive"* (Image 24) was slightly more likely to impact on smokers. Associating a smoking addiction with Class A drugs had a strong message and shock factor for respondents and presented information that some previously did not know. *"Smoking is addictive"* (Image 23) was also rated highly in terms of impact (commonly because of the sickening picture of nicotine stained fingers).

6. Quit message

Three-quarters (78%) agreed that having this information on the back of cigarette packets was likely to encourage smokers to call Quitline. Suggestions for improving the message included bolding the Quitline number or printing it in red.

7. Inserts

- Six warning message inserts were tested (Appendix E – Inserts 1 to 6).

The concept of inserts inside cigarette packets was not well received. Most said that, although it was interesting and positive information, the inserts would inevitably be thrown away and receive little more than a glance, if any, from smokers.

8. Ministry of Health association

A large proportion of respondents agreed that the messages would be more effective if they were associated with the Ministry of Health, as it gave the message official credibility. On the other hand, of those who disagreed or had more indifferent views, most said that there was little or no point in highlighting the Ministry association, i.e. not necessarily detracting from the messages, but neither strengthening them.

9. Communication channels

The large majority mentioned either <u>television or cigarette packets</u> as appropriate ways to communicate smoking warnings and quit advice to the general public. Respondents consistently mentioned <u>visuals</u> as being the crucial element – i.e. clear pictorial evidence of the consequences of smoking or the potential gains of quitting.

1. Introduction and objectives

1.1 Background

New Zealand has recently signed the Framework Convention on Tobacco Control (FCTC). As well as non-misleading packaging and labelling requirements, part of Article 11 provides that, within three years of entry into force of the FCTC, Parties to the Convention must ensure that:

- All tobacco products carry large, clear, visible, legible and rotating health warnings (and may include other appropriate messages) approved by the national authority.

- These warnings and messages should be 50% or more, but shall be no less than 30%, of the principal display areas.

- The warnings may be in the form of or include pictures or pictograms.

All tobacco products must also contain information on relevant constituents and emissions of tobacco products as defined by national authorities.

Warnings on tobacco packets provide an opportunity to provide, directly to every single smoker (on every occasion that they smoke), and also to non-smokers who might see the packets, effective messages about the harms caused by tobacco use. Importantly, unlike most products, where packaging is discarded after opening, a cigarette pack is usually retained until its contents are used up, and is frequently taken out, opened, and placed on display near the person.

One recent study examining tobacco industry documents confirmed that package design played a predominant role in the total marketing strategy of cigarettes, and that tobacco companies intentionally use package design to influence consumer perceptions of health risks. The study concluded that, *"If packs are effectively acting as advertisements for cigarettes, if their design characteristics make them more attractive to teenage smokers, communicate information about cigarettes that may be misleading (such as implying they are less strong or milder in some way), or minimise the salience of health warnings and contents information, then pack design ought to be subject to regulation"*[2].

Accordingly, researchers and legislators have identified the cigarette pack as one of the most effective places to educate people about the health risks of cigarettes, and an increasing number of countries have introduced legislation to regulate cigarette labelling.

We are aware that it has been argued in the past that there is no evidence showing that tobacco health warnings affect smoking behaviour. Therefore, changes to health warnings are not justifiable in the context of the compliance costs that the industry would incur.

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[2] Wakefield, M, Morley C, Horan JK and Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. *Tobacco Control* 2002; 11 (Suppl I).

However, the rationale for requiring tobacco companies to display information on tobacco packaging is wider than simply seeking immediate behavioural change. The next section outlines the objectives against which we assessed what health messages/information can potentially do.

1.2 Objectives

Against this background, the overall research objective of this project was to test, with a number of priority groups, which of a number of different health warnings from the Ministry of Health (MoH) (especially pictorial warnings) would be <u>effective</u> in helping people consider their smoking-related behaviour.

More specific research objectives of this project, in relation to these different health warnings and images, included determining:

- Prioritisation of smoking health warning messages, images and text within five different message categories, in terms of warning messages <u>most/least likely to impact on smokers or communicate the effects of smoking </u>(and reasons for this).

- <u>Reactions to design aspects of the messages</u>, i.e. look, feel and tone.

- The extent to which health warnings <u>convey believable information</u> about the health and other consequences of tobacco use.

- The extent to which health warnings <u>influence beliefs and attitudes to smoking</u> and smoking-related health issues.

- The extent to which warning messages on cigarette packets <u>provides an avenue for smokers to seek help to quit smoking</u> (for example, the likelihood of smokers to call a free phone number for a quit-line service).

- To what extent the health warnings (along with other tobacco and health strategies) may <u>change behaviour leading to reduced smoking</u>.

2. Method

2.1 The sample and random assignment of messages

Before describing the research method in detail, it is necessary to first describe <u>which</u> population groups were targeted. According to Ministry specifications combined with BRC's knowledge of the tobacco control area, we deliberately focussed on recruiting n=100 participants in three specific segments, on the basis of smoking behaviour.

The initial objective was to achieve a sample mix of 50% current smokers, 25% recent quitters, and 25% non-smokers living in a household with a smoker. Interviews were conducted with n=56 current smokers, n=17 recent quitters and n=27 non-smokers living in a smoking household. In light of difficulties securing the desired sub-sample of recent quitters, <u>and</u> also early evidence that message impact was not adversely influenced by smoking status, it was agreed to relax the criteria relating to smoking status. Sample was also selected to ensure representation of key demographic characteristics, specifically age, gender and ethnicity.

For a full sample profile, see Appendix B.

2.2 Health warning test areas

The three smoking categories were used as the primary basis for sample selection, with random assignment of <u>some</u> of the warning messages to respondents from each of the smoking status categories as appropriate in order to control "information overload" and/or respondent fatigue. Further, messages considered "primary" messages (e.g. those already known to be most effective in Australia, Canada, etc) were exposed to <u>all</u> respondents. All messages are summarised below:

1. Children, second-hand smoke, role modeling (Images 1 to 6):
- Image 1 - *"Protect children. Don't let them breathe your smoke"* (primary message)
- Image 2 - *"Don't poison us*
- Image 3 – *"You're not the only one smoking this cigarette"* (primary message)
- Image 4 – *"Smoking harms unborn babies"*
- Image 5 – *"Smoking kills babies"*
- Image 6 – *"Children see children do".*

2. Physical health (Images 7 to 17):

- Image 7 - *"Smoking is associated with prominent and premature facial wrinkling and ageing"* (primary message)

- Image 8 - *"Smoking – a leading cause of death* (primary message)

- Image 9 – *"Smoking causes lung cancer"*

- Image 10 – *"Smoking causes blindness"* (primary message)

- Image 11 – *"Smoking clogs your arteries"*

- Image 12 – *"Cigarettes are a heartbreaker"*

- Image 13 - *"Smoking causes gangrene"*

- Image 14 – *"Smoking doubles your risk of stroke"*

- Image 15 – *"Cigarettes leave you breathless"*

- Image 16 – *"Smoking causes mouth and throat cancer"*

- Image 17 – *"Tobacco use can make you impotent".*

3. Poison (Image 18):

- Image 18 – *"Where there's smoke there's hydrogen cyanide…"*

4. Quitting help (Images 19 to 22):

- Image 19 – *"You CAN quit – call Quitline 0800 778 778"* (primary message)

- Image 20 – *"Quitting now will improve your health"*

- Image 21 – *"Quitting now could save your life"*

- Image 22 – *"It's about Whanau, call Quitline on 0800 778 778"* (primary <u>Mäori</u> message).

5. Addiction (Images 23 and 24):

- Image 23 – *"Smoking is addictive"* (primary message)

- Image 24 – *"Cigarettes are highly addictive"* (primary message).

6. Quit message:

- *"You can Quit smoking. Call Quitline 0800 778 778 or talk to your doctor or pharmacist or visit www.quitline.org.nz"* (primary message).

7. Inserts:

- The extent to which smokers and recent quitters thought pack inserts inside cigarette packets were a good idea or not was tested. Six examples of inserts were randomly assigned to respondents. Refer to Appendix E for the inserts.

2.3 Approach

The approach comprised a mix of both qualitative and quantitative research techniques conducted face-to-face by senior interviewers, at BRC's Field Department, between 26 March and 18 April 2004. The approach can be broadly summarised as achieving the following.

- The qualitative techniques were used to establish (in terms of message categories):

    - What in particular made the smoking health warning message more or less likely to impact on smokers, or communicate the effects of smoking, in terms of each message category?

    - Credibility of the message and how this credibility manifested itself in terms of attitudes and behaviour i.e. what were the "hot buttons" or "triggers"?

    - Reactions to design aspects of the messages, i.e. look, feel and tone.

    - Improvements to the picture, warning message or associated text.

    - Reasons why the concept of pack inserts would, or would not, be an effective way of encouraging smokers to quit, or reduce the amount they smoke.

    - Improvements to the quit messages and inserts.

    - Ways in which smoking warnings and quit advice would be best communicated to the general public.

- The quantitative techniques were used to measure:

    - Prioritisation of messages in terms of most/least impact, both overall and in terms of message categories.

    - Level of agreement by current smokers, recent quitters and non-smokers living in a smoking household that messages will have a potential impact in terms of altering behaviours and attitudes.

    - The extent to which images are likely to convey believable information about the health and other consequences of tobacco use.

    - (With other tobacco and health strategies), the potential for behaviour change leading to reduced smoking.

    - The extent to which the smoking warnings would be more/less effective being associated with the Ministry of Health.

2.4 Questionnaire development

A copy of the interviewer-administered questionnaire used in the interviewing is contained in Appendix C. The questionnaire was piloted in a limited sense, using the first four interviews as "test" interviews. Because only very minor changes were required, we were able to retain these interviews. The purpose of piloting was to test the wording, flow and interpretation of questions.

2.5 Margins of error

Note that throughout this report there are some large differences observed between subgroups for quantitative findings. These have been reported for their <u>practical</u> relevance and may reveal statistically significant differences were a much larger study conducted. However, due to the sampling design, and the relatively small sub-sample sizes not statistically significant differences were observed.

2.6 Report structure

Provided below is a brief summary of the report structure. Total sample results are provided throughout the report. Sub-group analysis was also conducted to determine any differences between smoking status group, age, gender and/or ethnicity groups. These are outlined where applicable.

Section 3 contains a summary of feedback obtained from the testing of the 24 pictorial messages (including warning message and text), where both qualitative and quantitative techniques were used. It is broken up according to the five discrete message categories:

1. Children, second-hand smoke, role modeling
2. Physical health
3. Poison
4. Quitting help, and
5. Addiction.

Key elements are discussed, particularly for those warning messages perceived to have the most/least impact in each category.

Section 4 summarises feedback obtained in order to inform whether quit information on the back of cigarette packets is likely to encourage smokers to call the Quitline. Suggested improvements to the quit information is also summarised.

Section 5 summarises responses from two smoking status groups (current smokers and recent quitters) to the concept of having smoking health warning message inserts inside cigarette packets. Reasons for agreeing or disagreeing that these would be effective, as well as suggested improvements, add a "qualitative" component to this section.

Section 6 contains a primarily qualitative summary of feedback obtained in order to measure the extent to which respondents agree or disagree that the messages should be associated with or sponsored by the Ministry of Health.

Section 7 contains a brief qualitative summary of feedback obtained in order to inform the most appropriate ways to communicate information about smoking warnings and quit advice.

Finally, five appendices contain detailed information about:

- Complete cross-tabulations by smoking status (Appendix A).

- The sample composition (Appendix B).

- The questionnaire (Appendix C).

- Smoking health warning message images (Appendix D).

- Pack inserts (Appendix E).

We were commissioned to research smoking health warnings on cigarette packets, in terms of both pictorial and text elements. Because of a multitude of terms and phrases, to aid readability, throughout this report specific health warning messages and pack inserts have been referred to as "Image X" or "Insert X", respectively, which incorporate a message, image and/or text. The "X" corresponds to the specific warning message image, or pack insert. All warning message images are illustrated in Appendix D, and pack inserts in Appendix E.

Where quotes are included throughout the report, information about their smoking status (i.e. whether they are a current smoker, recent quitter or non-smoker living in a smoking household) has been initialised in the form CS, RQ and NS respectively.

3. Five groups (of pictorial messages)

This section provides results to the testing of 24 pictorial messages (including accompanying text messages). These messages have been broken into five discrete categories of pictorial and textual messages, which are discussed in the following sub-sections. These include warning messages relating to the following issues:

1. Children, second-hand smoke, role modeling
2. Physical health
3. Poison
4. Quitting help, and
5. Addiction.

3.1 Children, second-hand smoke and role modelling

Given the relevance and importance of second-hand smoke issues, respondents across all three smoking status groups (current smokers, recent quitters and non-smokers in a smoking household) were asked questions regarding children, second-hand smoke and role modelling messages (Images 1 to 6 – see Appendix D). Primary messages from Image 1 (*Protect children)* and Image 3 (*You're not the only one smoking this cigarette)* were exposed to all respondents*.*

Most impact *- "You're not the only one smoking this cigarette"*

Image 3 was by far the most commonly selected. Just under half (44%) of the total sample selected this as the <u>most</u> likely to have an impact in terms of children, second-hand smoke and role modelling issues (Table 1).

Table 1: Image <u>most</u> likely to impact - children, second-hand smoke, role modelling

Q3. Which of these cigarette packets do you feel is MOST likely to have an impact in terms of children, second-hand smoke and role modelling issues that surround smoking?

	Total sample n=100 %	Current smoker n=56 %	Recent quitter n=17** %	Non-smoker in smoking household n=27** %
Image 1 - Protect children	22	27	18	15
Image 2 - Don't poison us	2	0	6	4
Image 3 - You're not the only one smoking this cigarette	**44**	**45**	**35**	**48**
Image 4 - Smoking harms unborn babies	9	7	6	15
Image 5 - Smoking kills babies	13	11	24	11
Image 6 - Children see children do	10	11	12	7
Total	100	100	100	100

Note: Components may not always add to 100% exactly because of rounding.
**Caution: Low base numbers of respondents - results are indicative only.

When respondents were asked what in particular made Image 3 <u>more</u> likely to have an impact or communicate the effects of smoking, reference was initially made to the impact of the actual images of the baby combined with a pregnant woman smoking. The fact that the newborn baby is obviously in a vulnerable, serious condition was said to convey the potentially fatal physical dangers of smoking:

> *"It is not nice to see. Selfish really"* [NS].

> *"No mum wants that for their child"* [RQ].

> *"Because it's true – they're not the only ones smoking the cigarette"* [RQ].

> *"She's smoking and you see what her baby looks like after. The picture alone made the impact"* [RQ].

> *"It shows a baby, and a women smoking, and people are sympathetic towards these"* [NS].

> *"Picture wise the baby - obviously premature or very ill baby coincides with photo of pregnant lady smoking. Putting one and one together - smoking while pregnant causes this result. Back endorses the front, goes together"* [CS].

Many respondents commented on the effect the pictures had on them; specifically the cause-and-effect aspect of visually presenting a pregnant woman smoking leading to a premature/disfigured baby. The pictures combined with the text were said to make clear the physical dangers of second-hand smoke and smoking when pregnant.

Comments relating to the image from those who chose Image 3, was closely followed by comments about the text in the warning message (i.e. *"You're not the only one smoking this cigarette"*). Two main aspects of the text were consistently mentioned by respondents. Firstly, the fact that the strong message corresponded well with and substantiated the pictures. They felt the message had a catchy tone and made an impact, while corresponding well with the pictures - clearly indicating a message about second-hand smoke and smoking while pregnant.

Related, nearly all respondents (96%) agreed (either *agreed* or *strongly agreed*) that the picture supported the warning message and associated text, and vice versa.

The second aspect was the standout impact of the bold white text on a red background.

Examples of comments regarding the text follow:

> *"The red at the top stands out. Red for 'danger'"* [CS].

> *"The message - It's what I was thinking when I decided it was time to quit. Seeing my kids wave their hands in front of their faces every time I lit up"* [RQ].

> *"The message. Because it's true and it makes it stand out being on red background"* [NS].

> *"It's in Mäori - Mäori women have a problem with smoking"* [NS].

> *"The message stands out on the red background"* [NS].

The fact that Image 3 had text in Mäori as well as English was commented on by a number of respondents. They felt it showed cultural sensitivity and that the Government recognises this.

The large majority of respondents who selected Image 3 (n=44) agreed that it was likely to prompt people to think more about the effects of second-hand smoke on children or the effects of smoking when pregnant (91%) (Graph 1).

Graph 1: Effects of second-hand smoke on children and effects of smoking when pregnant
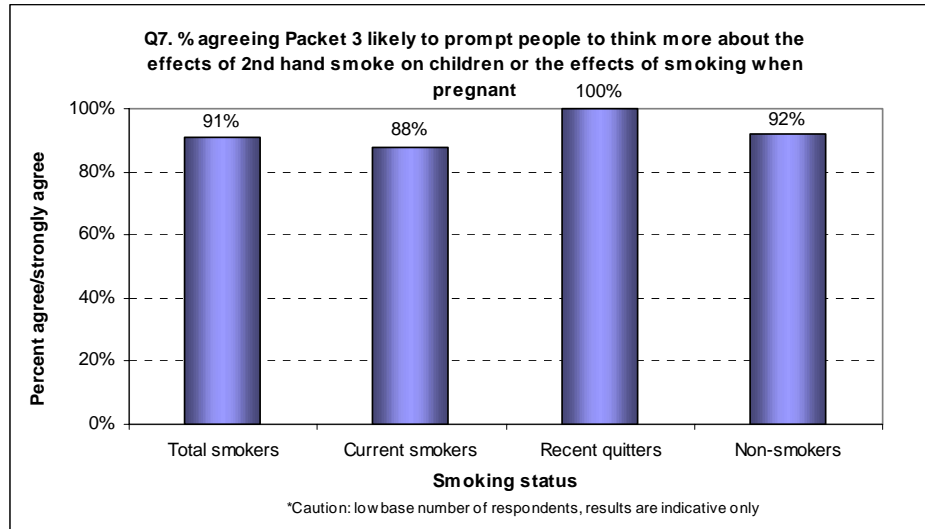
Related, a further four-fifths (86%) agreed that it was likely to encourage pregnant woman or young mothers to quit smoking or think about quitting. Although not significantly different (due to the small base number of respondents) current smokers were slightly more likely to agree with this statement than recent quitters (84% cf. 67%). Reasons for agreeing centred on prompting people to stop and think, questioning whether it is worth risking the health of your baby, shock tactics and delivering the clear message that you are not only harming yourself but your baby and/or others around you:

> *"The tiny child. It looks obscene to be sitting there with a pregnant women smoking"* [NS].

> *"Images connect to the message. Make people think"* {CS].

> *"The picture will make young mums at least think of what they're doing if they're smokers"* [RQ].

In addition, respondents felt that the additional text on the reverse side of Image 3 backed up the message well. Content in this was said to be informative and, to some, totally new information.

Of note, the vast majority suggested reversing the order of the pictures to better demonstrate a cause-and-effect relationship on this particular warning message. That is, having the picture of a pregnant woman on the left-hand side and the baby on the right-hand side to make it obvious what could be the result of smoking while pregnant. Some respondents also suggested increasing the size of the pictures. That is, compromise some of the text for larger, clearer pictures.

Least impact

Although two-in-ten (22%) respondents selected Image 1 *("Protect children")* as having the most impact, it was mentioned by over half (55%) of respondents as having the <u>least</u> impact. These respondents felt that the message and image did not clearly indicate a <u>smoking</u> health warning message, especially at a glance (which is often all that is given to cigarette packets) and initially thought it looked like the result of an accident.

Specifically, some were not sure what the picture was of i.e. if it was a child or adult or what the girl was actually sick with. Other comments included that it was a dull picture and not a strong message.

All children, second-hand smoke and role modelling warning messages in general

In general, unclear, dark images with too much text in the main warning message were not considered to have as much impact and seemed to be more likely to have the <u>least</u> impact. For example, some respondents felt that Image 2 *("Don't poison us")* had too much writing and could be a bit confusing, as not everyone knows what the chemicals are. The picture of the two 'normal' looking boys was uninteresting and not shocking enough.

The main elements of warning messages in this sub-section that seemed to have most impact on respondents, were clear, bright pictures and bold, simple warning messages, signalling the <u>consequence</u> of second-hand smoke or smoking while pregnant (e.g. by engaging the audience at an <u>emotional</u> level) seemed to have the most impact.

3.2 Physical health

All current smokers and recent quitters (n=73) were asked questions regarding physical health issues (Images 7 to 17 – see Appendix D). Primary messages from Image 8 (*Smoking – a leading cause of death*) and Image 10 (*Smoking causes blindness*) were exposed to all respondents.

Most impact - *"Smoking causes blindness"*

Image 10 received the highest response, and rated <u>most</u> likely to impact in terms of physical health issues that surround smoking (selected by 47% of current smokers and recent quitters) (Table 2).

Table 2: Image <u>most</u> likely to impact - physical health issues

Q14. Which of these cigarette packets do you feel is MOST likely to have an <u>impact </u>in terms of physical health issues that surround smoking?

	Sub sample n=73* %	Current smoker n=56 %	Recent quitter n=17** %
Image 7 – Smoking is associated with prominent and premature facial wrinkling and ageing	0	0	0
Image 8 – Smoking – a leading cause of death	12	16	0
Image 9 – Smoking causes lung cancer	5	4	12
Image 10 – Smoking causes blindness	**47**	**50**	**35**
Image 11 – Smoking clogs your arteries	5	4	12
Image 12 – Cigarettes are a heartbreaker	3	4	0
Image 13 – Smoking causes gangrene	4	2	12
Image 14 – Smoking doubles your risk of stroke	7	9	0
Image 15 – Cigarettes leave you breathless	4	4	6
Image 16 – Smoking causes mouth and throat cancer	8	4	24
Image 17 – Tobacco use can make you impotent	4	5	0
Total	100	100	100

Note: Components may not always add to 100% exactly because of rounding.
*Sub-sample based on current smokers and recent quitters.
**Caution: low base number of respondents - results are indicative only.

When asked what in particular made Image 10 most likely to have an impact or communicate the effects of smoking, responses centred on the graphic, ugly image of the eye being clamped open. This seemed to have a shock-factor that drew attention to the warning message and inspired curiosity.

When combined with the importance people place on physical features (specifically the value of eyesight), respondents were prompted to think about what smoking does to the body. Reasons such as *"it looks painful/sore"* and *"because you can go blind from smoking"* were given. Other comments included:

> *"Blindness is the last thing you want to happen to you"* [CS]

> *"Because it's so sharp and disturbing looking and you put it into perspective if your eye could get like that"* [CS].

> *"Catches your attention, the eye being held open. Simple message"* [CS].

The short, simple warning message situated under the image near the centre of the packet made it more likely to impact for many respondents. The associated text on the reverse side of the packet was commented on for its informative value as well as the fact that it is brief and straight to the point. The vast majority (98%) agreed (either *agreed* or *strongly agreed*) that the picture supported the warning message and associated text, and vice versa (just n=3 disagreed).

> *"The info is informative. Red on white warning is good, shows up much better"* [CS].

> *"I didn't really know smoking causes blindness"* [CS].

Three-quarters of current smokers who selected Image 10 agreed that seeing this message and image on cigarette packets <u>would encourage them to quit smoking or at least reduce the amount they smoke </u>(75%). Under 20 year olds were more likely to disagree with this (25% disagreed, cf. 13% 20-39 year olds) although the difference is not significant.

Those who selected Image 10 largely felt that this picture, combined with the short, simple warning message communicated a relatively major cause of smoking (blindness), often underestimated or even unknown. Most thought that it was effective the way it was, however the few suggestions for improvements were about the picture, including making it clearer and lighter:

> "Different background colour" [CS].

> "Make the picture a bit clearer" [CS].

Least impact

Image 8 ("Smoking – a leading cause of death") was mentioned by six-in-ten (59%) of current smokers and recent quitters as having the least impact. Reasons for this centred on the bar graph image being relatively uninteresting and a little confusing. Specifically, it does not indicate what time period the figures are referring to and some said it took them a while to understand.

A small proportion, however, had a positive response to Image 8 and felt that tobacco related deaths portrayed in a statistical format was effective. This indicates that this type of image and message could be effective if it was portrayed in a simpler, more attention-grabbing way.

Image 7 (Smoking is associated with prominent and premature facial wrinkling and ageing") is another example of an image and message combination that had little impact on respondents. The main point of difference between this warning message and other warning messages in the physical health section, is the fact that the warning message is a paragraph instead of a short bold statement. There was clearly an adverse reaction to this, indicating a preference for short warning messages that stand out and catch the eye:

> "Too much writing. Won't probably read anyway. Just need one short sentence" [CS].

> "It's [Image 7] got a lot of text. Smokers will just look past that. Can't clearly see her face anyway and just has smoke surrounding her" [CS].

Image 17 ("Tobacco use can make you impotent") was considered 'laughable' by most. And even if the message was taken seriously, respondents said that males are aware of many things that make them impotent, and putting this on cigarette packets would not encourage them to quit smoking or reduce the amount they smoked.

All physical health warning messages in general

Shock-tactics or a 'revolt' factor seem to be an effective approach in terms of communicating the physical effects of smoking. Image 9 ("Smoking causes lung cancer"), Image 12 ("Cigarettes are a heartbreaker"), Image 13 ("Smoking causes gangrene"), Image 14 ("Smoking doubles your risk of stroke") and Image 16 ("Smoking causes mouth and throat cancer") were all commented on in terms of this (see Appendix D).

Again, clear, bold pictures and bold simple warning messages with informative (yet brief) additional text on the reverse side were elements that seemed to have the most impact on current smokers and recent quitters.

3.3 Poison

All current smokers and recent quitters were shown Image 18 (*"Where there's smoke there's hydrogen cyanide..."*) (Image 18 – see Appendix D). This warning message highlights the many poisonous elements people are exposed to from cigarette smoke, by identifying names of poisons through a picture of hazy cigarette smoke. <u>The warning message, image and associated text provoked mixed reaction</u>, with many agreeing that the message in general was effective and provided useful information, but that presentation aspects decreased the likely impact.

Two-fifths (40%) <u>agreed</u> (either *agreed* or *strongly agreed*) that Image 18 was likely to have an impact on smokers or communicate the negative effects of smoking in terms of the harmful chemicals smokers are exposed to (Graph 2).

Graph 2: Agree or disagree that Poison warning message likely to impact
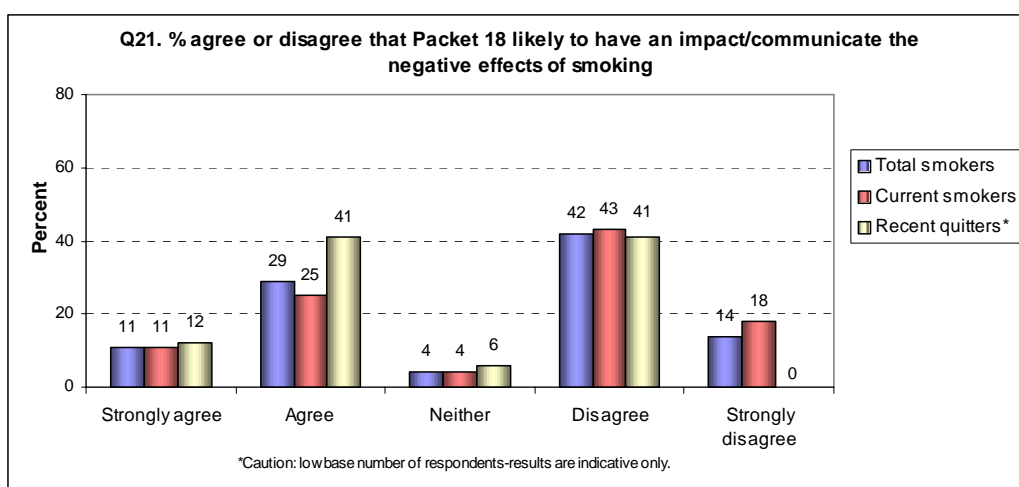
When asked what made it <u>more</u> likely to have an impact on smokers or communicate the negative effects of smoking, there was a general theme whereby respondents were not aware that cigarettes contained all or some of the chemicals outlined:

> *"There are some things that I did not realise were in cigarettes"* [RQ].

However, over half (56%) <u>disagreed</u> (either *disagreed* or *strongly disagreed*) that it would communicate the negative effects of smoking, indicating that this poison warning message was unlikely to have much impact on smokers. Those aged 20 to 39 years were slightly more likely to disagree (61% cf. 57% under 20 years, 47% aged 40 and over).

Comments about what made it <u>less</u> likely to have an impact were generally about the actual image and layout. Many felt that this picture (smoke haze) was plain and unclear and that the message was boring. A relatively large proportion of respondents did not know what the actual words meant or that they were anything to do with cigarettes, which reduced their impact:

> *"Boring. I'm more of a visual person. Some people wouldn't understand what the chemicals are"* [CS].

> *"Big words that I don't understand. Arsenic - why aren't we all dead? Need effective pictures of what chemicals are going into your body. Maybe highlight the words. Needs to inform us of what the actual chemicals are. Nobody is interested in reading big words. The text is informative but explain the big words so they know"* [CS].

> *"Just the way it is presented. Small words, a puff of smoke, nothing really there. Information does not want you to take much notice"* [CS].

> *"I don't understand the text. They could be good chemicals for all I know"* [CS].

A suggestion made by some respondents was to display the chemicals in bar graph format to better illustrate the proportions of these. One specific example included younger respondents mentioning posters in school Physical Education classes, which had proportions of chemicals marked on to a cigarette. These respondents suggested using this image instead as it indicated the same message in a more effective and clearer way:

> *"Because it would be better if they show the actual cigarette with percentage of tar, etc marked on it"* [CS].

> *"Rearrange whole thing. Looking at the cigarette, shows percentage of what's in each cigarette (stacked bar graphs). More visual"* [CS].

Other suggestions related to the text and colour of the image and message:

> *"Change picture, a bit of colour (red stands out so use in some way). Take away chemical names and just say 'poison'. Where there's smoke there's poison"* [NS].

> *"Background is too blue. Maybe put the words in red to make them stand out"* [CS].

> *"Make it easier to understand somehow. Don't know. Don't like the smoke in the background, blurs the words"* [CS].

> *"Red writing on a white background would be more eye-catching. Larger writing"* [CS].

3.4 Quitting help

Given the relevance of this section to current smokers and recent quitters, both of these smoking status groups were asked questions about the specific quit-related warning messages (Images 19 to 22 – see Appendix D). The primary message from Image 19 (*"You CAN quit – call Quitline 0800 778 778"*) was exposed to all respondents. Image 22 *("It's about Whanau, call Quitline on 0800 778 778")* was exposed to all <u>Mäori</u> respondents.

All four warning messages rated equally highly in terms of impact (Table 3).

Table 3: Quit warning message most likely to impact

Q25. From the perspective of someone who (IS CURRENTLY A SMOKER | HAS RECENTLY QUIT SMOKING) which of these cigarette packets do you feel is MOST likely to have an impact in terms of encouraging you to quit smoking?

	Sub sample n=73* %	Current smoker n=56 %	Recent quitter n=17** %
Image 19 – You CAN quit – call Quitline 0800 778 778	25	29	12
Image 20 – Quitting now will improve your health	30	30	29
Image 21 – Quitting now could save your life	21	18	29
Image 22 – It's about Whanau, call Quitline on 0800 778 778	25	23	29
Total	100	100	100

Note: Components may not always add to 100% exactly because of rounding.
*Sub-sample based on current smokers and recent quitters.
**Caution: low base number of respondents - results are indicative only.

Image 20 - *"Quitting now will improve your health"* received a slightly higher response, rating most likely to impact in terms of encouraging the respondent to quit smoking (selected by 30% of current smokers and recent quitters).

Images of happy families (contained in both Images 20 and 22) were well liked for being positive and the way that they show the potential gains to family life as a result of quitting:

> *"They look healthy and like they're having fun"* [CS].

> *"It makes you think about family. What you could miss out on"* [CS].

The warning message in Image 20 was well liked for its simplicity and the fact that it held an important message – it indicates the positive result of quitting (improving your health) instead of just 'telling' the reader to quit, i.e. a "carrot" as opposed to just a "stick"! Respondents also liked the size and boldness of the text of this message.

> *"Just about family time and being able to enjoy it and being there to enjoy it"* [CS].

> *"Positive picture. Seems they are happy healthy people that don't smoke - reverse of old cigarette ads e.g. James Dean with cigarette. Everyone is worried about their health. Text is good. Easy to understand and, like the picture, is more focused on the positive. Things that will happen if you do this"* [CS].

> *"Lucky that the wording is there, because with just the picture it would make it look like smoking is wonderful"* [CS].
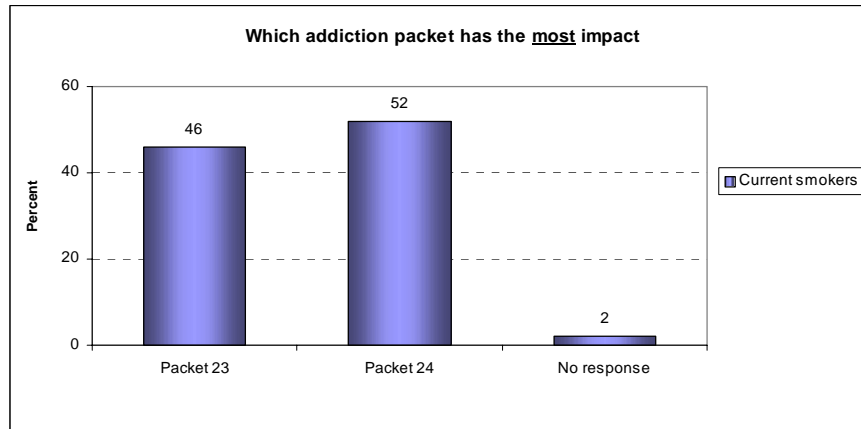
Suggestions about the positioning of the text were made – i.e. many felt that it would be more effective at the top of the packet and, in the case of Image 20, not over top of the picture.

> "Text is all over the picture. Put the text at the top and then have the picture (with no wording) in the middle" [CS].

3.5 Addiction

All current smokers were asked questions about the two addiction warning messages (Images 23 and 24 – see Appendix D). Approximately half (52%) chose Image 24 *("Cigarettes are highly addictive")*, as the most likely to impact in terms of communicating that smoking is addictive. Just under half (46%) chose Image 23 (*"Smoking is addictive"*) (Graph 3).

Graph 3: Addiction messages

Which addiction packet has the <u>most</u> impact

	Packet 23	Packet 24	No response
Current smokers	46	52	2

Both the images, of nicotine stained fingers in Image 23 and a full dirty looking ashtray in Image 24, were elements that people responded well to. A clear message was that the picture of yellow stained fingers stood out at first glance – people don't want to end up with ugly, nicotine stained fingers. However, many respondents were undecided when choosing between the two warning messages and after reading further, selected Image 24 on the basis that useful and shocking information is provided on the front of the packet <u>in addition</u> to the warning message.

In many instances, respondents felt that associating the addiction of cigarette smoking with Class A drugs was a stronger message, and after initially selecting Image 23 based on the graphic picture, changed their mind to Image 24. This further confirms the power of visual images as a primary "hook" to the effectiveness of the message, but <u>strengthened</u> by appropriate accompanying text.

> *"Makes me feel sick looking at al the cigarettes butts. The message "it is harder to quit than heroine and cocaine. That stands out a lot"* [CS].

> *"It says 'It's harder to quit cigarettes than drugs'. The title is good - it makes an impact"* [CS].

> *"The mention that it's harder to quit than hard drugs. Pretty rough"* [CS].

In addition, the word "highly" in the warning message (Image 24) was said to make it a stronger message, more effective message. Respondents did, however, suggest that the message and additional text was made to stand out a little more (e.g. text in red). The picture is very dark so it does not stand out.

4. Quit message

This section provides results to the testing of the generic quit message on the back of cigarette packets. In line with the objectives of the research, all current smokers and recent quitters were asked questions in order to gain an understanding of whether or not the quit information is considered useful and what, if anything, could be improved about the message.

<u>Reactions to the quit message were largely positive</u>. Three-quarters (78%) of all respondents agreed that having this information on the back of cigarette packets was likely to encourage smokers to call Quitline. Specifically, eight-in-ten (81%) current smokers agreed with this statement.

Graph 4: Agree or disagree that quit information likely to encourage smokers to call Quitline

Agree or disagree quit information is likely to encourage smokers to call Quitline

*Caution: low base number of respondents-results are indicative only.
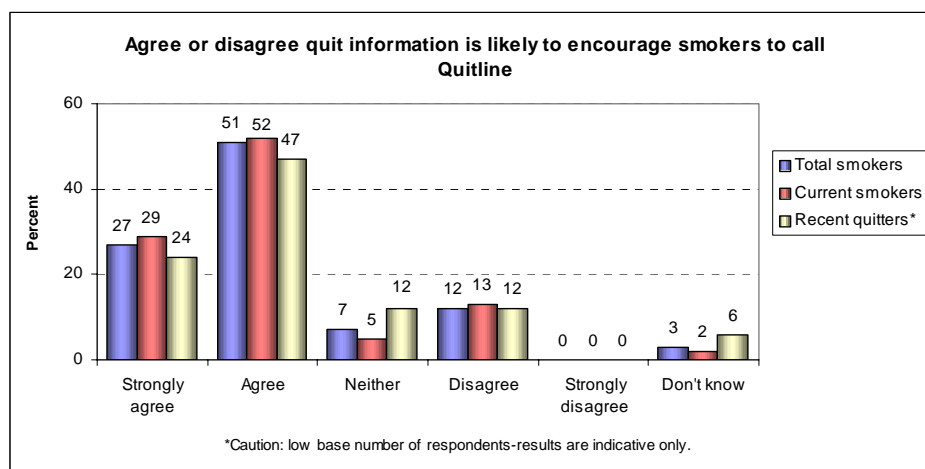
Suggested improvements included making the message larger and the actual text bold or coloured so that it stands out more, particularly the Quitline number. Some felt this quitting information should be on the front of the cigarette packet. Some of these suggestions may not be possible given the size of a cigarette packet, however some adjustments to the colour and bolding of the text could be made:

"Too wordy, needs to be a bit bigger. It is size, you are governed by the size of the pack so you can only put it so much" [RQ].

"Make it stand out more - bold/red the 0800 number and 'call Quitline'" [RQ].

"The phone number could be bigger and bolder" [CS].

5. Inserts

This section provides results to the testing of six discrete pack inserts (Inserts 1 to 6 – see Appendix E). The Canadian primary insert (Insert 3 - *"Can second hand smoke harm my family?")* was exposed to all current smokers and recent quitters*.*

In line with objectives for this research, the extent to which smokers and recent quitters thought pack inserts inside cigarette packets were a good idea or not, was established. In general, <u>the concept was not well received</u>, with one-third (33%) <u>disagreeing</u> (either *disagreed* or *strongly disagreed*) that these would be an effective way of encouraging smokers to quit or reduce the amount they smoke. One-third (34%) <u>agreed</u> (either *strongly agreed* or *agreed)* that they were a good idea and a further 14% neither agreed nor disagreed.

Table 4: Response to concept of pack inserts

Q34. Do you agree or disagree that having these inserts inside cigarette packets would be an effective way of encouraging smokers to quit, or reduce the amount they smoke?

	Sub sample n=73* %	Current smoker n=56 %	Recent quitter n=17** %
Strongly agree	15	16	12
Agree	19	23	6
Neither agree nor disagree	14	16	6
Disagree	18	23	0
Strongly disagree	15	18	6
Don't know	3	4	0
No response	16	0	71
Total	100	100	100

Note: Components may not always add to 100% exactly because of rounding.
*Sub-sample based on current smokers and recent quitters.
**Caution: low base number of respondents - results are indicative only.

Some were positive about the informative/educational tone of the text in the inserts, as opposed to them containing warnings about the adverse effects of smoking. Respondents largely felt however, that although it was handy information, the inserts would inevitably be thrown away - they would receive little more than a glance. Even those who agreed that inserts may be effective shared this view:

> *"We're not going to read it. Just more rubbish"* [CS].

> *"No one will read them. Will be chucked with the other bit you rip out"* [CS]*.*

> *"Most people won't look at them. They'll chuck it away. But messages are good and positive - giving solutions. Good when they are new (e.g. first couple of packets) and after that I don't think they will be"* [CS]*.*

6. Ministry of Health Association

As part of a summary to complete the interview, all respondents (current smokers, recent quitters and non-smokers living in a smoking household) were asked to focus their attention on the *"Ministry of Health"* text in red which featured on all 24 warning messages used in this research.

In general, <u>the majority of respondents agreed that the images and messages on cigarette packets would be more effective if associated with the Ministry of Health</u>. Two-thirds (63%) of all respondents agreed (either *agreed* or *strongly agreed*) with this, and just one-fifth (21%) <u>disagreed</u> that the messages should be associated with the Ministry (Table 5).

Table 5: Ministry of Health association

Q37. Do you agree or disagree that any or all of these messages would be more effective being associated with or sponsored by the Ministry of Health?

	Total sample n=100 %	Current smoker n=56 %	Recent quitter n=17** %	Non-smoker in smoking household n=27** %
Strongly agree	26	29	24	22
Agree	37	30	47	44
Neither agree nor disagree	11	14	6	7
Disagree	17	14	18	22
Strongly disagree	4	4	6	4
Don't know	4	7	0	0
No response	1	2	0	0
Total	100	100	100	100

Note: Components may not always add to 100% exactly because of rounding.
**Caution: low base number of respondents - results are indicative only.

Comments from those who agreed with the association, said that it gave the message official credibility. They assume that the Ministry know what they are talking about in regards to health issues:

> *"An authority behind the warning so makes you think a little more about how serious it is"* [NS].

> *"They know what they're talking about and you know that it is a fact. It has to be true"* [CS].

On the other hand, people who disagreed or had more indifferent views, mostly said that there was no point in highlighting the Ministry association, i.e. not necessarily detracting from the messages, but neither strengthening them. Respondents felt that the warning messages and images were strong enough themselves and that explicit Ministry of Health association with the warning messages would not have any impact on what the message was saying:

> *"Doesn't matter who is giving the message as long as message is getting there"* [CS].

> *"I have never thought about it because its always been there. All it does do is tell you it is from the Government"* [CS].

7. Communication channels

To conclude, all respondents were asked their opinion on the best way to communicate smoking warnings and quit advice to the general public.

Not surprisingly, based on everything they had talked about in the interview and their own experiences with smoking and/or smokers:

- approximately half of the respondents mentioned cigarette packets (as they had seen) as an appropriate communication channel;

- television was mentioned by an even larger proportion (approximately 60%) as an appropriate avenue for smoking warnings and quit advice.

It was primarily visuals that respondents felt were the most effective when communicating warnings about smoking to the general public. Graphic images with shock-factor were often referred to as being effective, whether they feature on television, cigarette packets or billboards:

"Packets good idea. That's really the enemy so market it so people can be warned and if they'll have it - go for it. TV - support for Quitline and what's going on [CS].

"I like the TV ads. They make you think at least. Need to put those pregnancy ones in the hospital, in maternity" [CS].

"People respond better to pictures and drawings. Base on visual stimulation - more understandable over gender, ethnicity, everyone. On TV, like drink driving campaign is very visual" [CS].

Many referred to smoking warning television campaigns that have already been screened, particularly the advertisement featuring the damaged aorta:

"Best way is those ads on TV. 'This aorta is the aorta of a smoker ages 30' and then showing them pushing stuff out of it. Shocking tactics with body parts" [CS].

As well as clear pictures and simple messages, colour and bold text was said to be hugely important, regardless of the type of communication channel.