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Smoking Health Warnings Study

Optimising smoking health warnings
Stage 2 – text, graphics, size and colour testing

Ministry of Health

August 2004

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Executive Summary

Background, objectives and method

This report presents the key findings from eight mini-group discussions, conducted to provide guidelines for the ways in which pictorial and text smoking health warnings already known to have a positive impact on people's smoking behaviours, might be optimally presented on tobacco packaging for maximum impact.

This research was designed as an extension to Stage One, which was conducted to understand, more generally, which health warning messages were considered by consumers to have the most potential to impact positively on their (and others') smoking behaviour.[1]

The primary objective of Stage Two was to test various design aspects relating to messages already identified in Stage One as having the most (potential) impact on people's smoking behaviours. However, to ensure a focus on the primary objective of assessing <u>design</u> aspects, rather than <u>message</u> content, in Stage Two we deliberately exposed participants in each mini group to just <u>one</u> high impact message identified in Stage One. Further, as described in more detail in section 1.3 (*Method*), participants in each of the four target audiences (see below) were exposed to a different message, such that a total of four high impact messages were assessed from a design perspective.

The rationale for adopting a mini-group discussion approach, as distinct from the individual interview approach used for Stage One, may be summarised as follows:

- Reaction and response to communication materials is often "inspired" by the opportunity to "bounce" ideas among a relatively homogeneous group of respondents, or in a broad sense, "affinity" groups.

- Because of the range of combinations of pack designs in terms of comparative balance, size, and colour (see below), the research process is best managed in a mini-group context. This mini-group approach differed from the Stage One approach, in which a larger sample of individual respondents were randomly assigned exhaustive combinations of pack designs, so that message impact could be <u>quantified</u>, or <u>ranked</u>.

- Finally, for Stage Two there was no central requirement to quantify message impact, rather the overriding objective was to obtain in-depth feedback in terms of design aspects. As such, it was not necessary to recruit as large a sample as we did for Stage One, to ensure that key findings could be reported with an acceptable degree of statistical accuracy.

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[1] The final report and appendixes for Stage 1 can be accessed on the website:
http://www.ndp.govt.nz/tobacco/smokefreeenvironments/healthwarningsstudy/healthwarnings.html.

The eight group discussions were held at BRC's central Wellington office, between 14 and 24 June 2004, and comprised a total of n=37 current smokers, in the following target audiences:

- Two groups of parents of children aged zero to 16.

- Two groups of other current smokers.

- Two groups of Māori.

- Two groups of young women aged 15 to 24.

The two groups for each of the four target audiences were exposed to four different designs of the same message. The design executions examined in detail in order to identify guidelines for the most effective way to present health warnings on tobacco packaging were:

- The "balance" between the use of pictorial and text warnings, e.g. (in general) the extent to which pictorial warnings have more, or less, impact, than text-only messages.

- The size of health warnings, e.g. what percent of the total display area is most likely to have the desired impact?

- The use of colour, e.g. assessing the "ideal" colour(s) from the perspective of a warning, the maximum number of colours, and colour combinations.

In addition to these test areas, we also tested three versions of the constituent information on the side of the pack, as follows:

- The key message "there is no such thing as a safe cigarette", and supporting text.

- A short version explaining some of the chemical content of the smoke each cigarette contains.

- A longer version explaining some of the chemical content of the smoke each cigarette contains.

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. Appendix C contains pack mock-ups of all message and design executions.

For full details of the research method, see the *Background, objectives and method* section, below.

Conclusions and recommendations

By way of a high-level summary of findings, the following key considerations emerged from the research:

- Pictorial messages are likely to have significantly more impact than text-only messages.

- The larger the pictorial message, the greater its impact.

- Message impact might in fact be enhanced if messages (text <u>and</u> pictures) are positioned at the bottom of the front of pack. However, we acknowledge the Ministry requirement, that for maximum message impact at point-of-sale, messages will most likely need to be positioned at the top of the pack.

- The "novelty" value of yellow text on black background, as well as its striking colour combination and synergy with road and other warning messages, is likely to have significant impact (especially if supported by appropriate pictorial messages). Notwithstanding this, the red text on white ranked almost as highly as yellow text on black.

- Side of pack messages are rarely, if ever, read, and notwithstanding the use of colour and graphical devices, are unlikely to ever have significant impact.

- Simplicity, brevity and shock-value are essential for all messages. Specifically, over-use of text, long lists of complex chemicals, and too-general statements already understood by smokers (but often ignored or rejected), are less likely to have an impact (see below).

- The message "there is no such thing as a safe cigarette" did not test well, and is unlikely to have much, if any, impact.

In the remainder of this report we present a detailed summary of our findings, in terms of the following inter-related sections:

- Background, objectives and method.

- Message impact ranking.

- Colour test – red text on white background, compared to yellow text on black background.

- Size test – large picture and text (50% of front of pack display area), compared to small picture and text (30% of front of pack display area).

- "Balance" test – large picture and text, compared to large text only (both 50% of front of pack display area).

- Side of pack messages.

Where relevant, supporting verbatim comments are included in the main body of the report.

1. Background, objectives and method

1.1 Background

This report presents the key findings from eight mini-group discussions, conducted to provide guidelines for the ways in which pictorial and text smoking health warnings already known to have a positive impact on people's smoking behaviours, might be optimally presented on tobacco packaging for maximum impact.

This research was designed as an extension to Stage One, which was conducted to understand, more generally, which health warnings were considered by consumers to have the most potential to positively impact on their (and others') smoking behaviour.[2]

1.2 Objectives

The primary objective of Stage Two was to test various design aspects relating to messages already identified in Stage One as having the most (potential) impact on people's smoking behaviours. However, to ensure a focus on the primary objective of assessing <u>design</u> aspects, rather than <u>message</u> content, in Stage Two we deliberately exposed participants in each mini group to just <u>one</u> high impact message identified in Stage One. Further, as described in more detail in the next section, participants in each of the four target audiences were exposed to a different message, such that a total of four high impact messages were assessed from a design perspective.

1.3 Method

The rationale for adopting a mini-group discussion approach, as distinct from the individual interview approach used for Stage One, may be summarised as follows:

- Based on our experience, reaction and response to communication materials, such as advertising, branding, packaging, package labelling, is often "inspired" by the opportunity to "bounce" ideas among a relatively homogeneous group of respondents, or in a broad sense, "affinity" group. By contrast, experience shows that valuable insight can be overlooked by respondents in an individual interview context, as it is often the opinion of others that helps bring an otherwise latent consideration to the fore.

- Because of the range of combinations of pack designs in terms of comparative balance, size, and colour (see below), the research process is best managed in a mini-group context. This mini-group approach differed from the Stage One approach, in which a larger sample of individual respondents were randomly assigned exhaustive combinations of pack designs, so that message impact could be <u>quantified</u>, or <u>ranked</u>.

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[2] The final report and appendixes for Stage 1 can be accessed on the website:
http://www.ndp.govt.nz/tobacco/smokefreeenvironments/healthwarningsstudy/healthwarnings.html.

- Finally, for Stage Two there was no central requirement to quantify message impact, rather the overriding objective was to obtain in-depth feedback in terms of design aspects. As such, it was not necessary to recruit as large a sample as we did for Stage One, to ensure that key findings could be reported with an acceptable degree of statistical accuracy.

Group discussions were held at BRC's central Wellington office, between 14 and 24 June 2004. A total of n=37 current smokers participated, in terms of the following target audiences considered to be the primary target audiences for the research. Also included are the four key messages identified in Stage One as having most impact, and therefore exposed to each category of smoker:

- Two groups of <u>parents of children aged zero to 16</u> (n=5; n=3); exposed to the "you're not the only one smoking this cigarette" message (message 1 – see Appendix C).

- Two groups of <u>other current smokers</u> (n=5; n=5); exposed to the "smoking causes blindness" message (message 2 – see Appendix C).

- Two groups of <u>Māori</u> (n=4 males; n=5 females); exposed to the "quitting now will improve your health" message (message 3 – see Appendix C).

- Two groups of <u>young women aged 15 to 24</u> (n=5; n=5); exposed to the "cigarettes are highly addictive" message (message 4 – see Appendix C).

The two groups for each of the four target audiences were exposed to a common message, i.e. four messages in total, and the following factors (or design executions) examined in detail in order to identify guidelines for the most effective way to present health warnings on tobacco packaging:

- <u>The "balance" between the use of pictorial and text warnings</u>, e.g. (in general) should a pictorial warning take priority over accompanying text, or vice versa?

  o This aspect was tested by comparing a large combined text <u>and</u> pictorial message, and a text only message (both 50% of front of pack display area) (image 1 cf. image 3 – see Appendix C).

- <u>The size of health warnings</u>, e.g. what percent of the total display area is most likely to have the desired impact?

  o This aspect was tested by comparing a large combined text and pictorial message (50% of front of pack display area – the same design as the combined text and pictorial message used for the "balance" of pictorial and text warnings described above), and a small combined text and pictorial message (30% of front of pack display area) (image 1 cf. image 2 – see Appendix C).

- <u>The use of colour</u>, e.g. assessing the "ideal" colour(s) from the perspective of a <u>warning</u>, the maximum number of colours, and colour combinations.

  o This aspect was tested by comparing a large red text on white background message, and a large yellow text on black background message (both 50% of front of pack display area) (image 3 cf. image 4 – see Appendix C).

In addition to these test areas, we also <u>tested three versions of side of pack messages</u>, as follows:

- ▪ The key message "there is no such thing as a safe cigarette", and the supporting text:

    - o "Smoking delivers nicotine in a highly addictive form making it hard to control the amount you smoke or to quit. When you smoke you inhale more than 40 poisons which are known to cause cancers, damage lungs, and clog up blood vessels. These poisons include: tar, nitrosamines, benzopyrenes and carbon monoxide" (see Appendix C).

- ▪ A short version explaining some of the chemical constituents of the smoke of each cigarette, as follows:

    - o "Toxic emissions/unit: Tar – 11-29mg; Nicotine – 1.2-2.7mg; Carbon Monoxide – 11-25mg."

- ▪ A longer version explaining some of the chemical constituents of the smoke of each cigarette, as follows:

    - o "Toxic emissions/unit: Tar – 11-29mg; Nicotine – 1.2-2.7mg; Carbon Monoxide – 11-25mg; Formaldehyde – 0.048-0.13mg; Hydrogen Cyanide – 0.098-0.25mg; Benzene – 0.040-0.080mg."

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. Appendix C contains pack mock-ups of all message and design executions.

2. Message impact ranking

At the conclusion of each in-depth discussion around the pros and cons of different message display executions, respondents were asked to rank the four messages in terms of highest to lowest impact (1 = most impact through 4 = least impact). Message impact ranks are summarised in Table 1. Most importantly, this aspect of the research confirms that pictorial messages have significantly more likelihood of having the desired impact, compared to text messages (also supported by findings from Stage 1).

Table 1: Overall message impact ranks

	Large picture and text	Small picture and text	Large text (yellow text on black background)	Large text (red text on white background)
Most impact (rank=1)	n=28 (76%)	n=0 (0%)	n=7 (19%)	n=2 (5%)
2nd-most impact (rank=2)	n=2 (5%)	n=23 (62%)	n=6 (16%)	n=5 (14%)
3rd-most impact (rank=3)	n=2 (5%)	n=7 (19%)	n=15 (41%)	n=14 (38%)
Least impact (rank=4)	n=5 (14%)	n=7 (19%)	n=9 (24%)	n=16 (43%)
Average rank	1.6	2.6	2.7	3.2

On the basis of the display impact rankings illustrated in Table 1, a relatively clear pattern of display impact was measured, as summarised below. Of significance is the fact that both display executions that incorporated a picture were ranked as having most (large picture and text) and second-most (small picture and text) impact. This confirms the effectiveness of <u>visual</u> cues, i.e. pictures, as adding impact to supporting text messages:

- The <u>large picture and text display was overwhelmingly considered to be the display execution with most impact</u>:
    - o Average impact ranking of 1.6.
    - o Three-quarters (76%) of participants gave this display execution the highest rank of one.

- The <u>small picture and text display was considered to be the display execution with 2nd-most impact</u>:
    - o Average impact ranking of 2.6.
    - o Although no participants gave this display execution the highest rank of one, almost two-thirds (62%) gave it a rank of two.

- The <u>yellow on black text colour was considered to be the display execution with 3rd-most impact</u>:

    o Average impact ranking of 2.7.

    o Although ranked just below the small picture and text display execution, just 35% of participants gave it a rank of one or two (19% a rank of one and 16% a rank of two), compared to 62% who gave a rank of one or two to the small picture and text display execution.

    o Conversely, two-thirds (65%) of participants gave this display execution a rank of three (2nd-least impact) or four (least impact).

- The <u>red on white text colour was considered to be the display execution with 4th-most, or least, impact</u>:

    o Average impact ranking of 3.2.

    o This display execution attracted the highest proportion of three (2nd-least impact) and four (least impact) rankings, respectively 38% and 43% - collectively four-fifths (81%) of participants.

3. Colour test

The colour test was designed to test optimal impact aspects related to <u>red text on white background</u>, compared to <u>yellow text on black background</u>.

As summarised above, on balance, the yellow on black display was preferred to red on white, although in saying this it is important to acknowledge that <u>both</u> of these text-only displays rated less highly than <u>either</u> the large picture and text or small picture and text display execution. When considered together, the take-out from these findings is <u>yellow text on black, combined with a graphic pictorial image, is likely to have the most powerful impact</u>.

The primary reasons for the yellow on black preference, and/or lower preference for red on white, were:

- It's <u>visual impact</u>, in particular the striking and unique (i.e. "new", "fresh") combination of yellow text on a black background, such that it is likely to stand out against branding positioned elsewhere on the packet.

- It's <u>universal association with hazard warnings</u>.

A summary of key considerations and verbatim comments supporting the yellow on black combination included:

Yellow and black is considered to represent "hazard signs", "black means death, yellow is poison", "death", "darkness", "caution signs", i.e. impacts appropriate to the subject of smoking health warnings.

"Yellow on black stands out more." Considered a more striking/bold colour combination that will stand out more on the different coloured cigarette packs (brands), more eye-catching and attention grabbing.

Yellow on black is more eye-catching, grabs attention, and the yellow font "cuts through".

Because the yellow and black is more vivid and bold, some participants commented that they would be more likely to feel uncomfortable smoking around others with a pack like that on the table – *"everybody can see it".*

Red on white tended to be considered as too similar to the display existing warning messages, i.e. lacks sufficient impact.

"Yellow on black seems highlighted and easier to see from a distance."

"I can associate red and white with something that is healthy."

"I think it stands out more than the white [and red] and think white is too plain – it is quite boring."

"The dark background and the bright yellow on it makes it stand out."

"For me the yellow one – it is more eye-catching; it brings your attention to it."

"Yellow does stand out."

"… if we see a message like that [yellow on black] it is like, 'different, new, read it'."

"Warning signs."

"For me black is death; gold is poison."

"Poison; death; the hazard signs."

"Stop; danger; it is just like the traffic signs."

"More caution; they are caution signs."

Conversely, reasons against the yellow on black preference, and/or reasons supporting a preference for red on white, included:

Too reminiscent of Wellington rugby (Hurricanes, Lions) branding, i.e. potentially distracting (it is however likely that this perception is over-emphasised due to the Wellington resident composition of participants).

Red on white is clearly associated with important health warnings, e.g. 1st aid kits, hospitals. Also, "danger" or "stop" signals.

"Red to me means more important."

4. Size test

The size test was designed to test a <u>large picture and text</u> (50% of front of pack display area), compared to a <u>small picture and text</u> (30% of front of pack display area).

Overwhelmingly, the large picture and text display execution was preferred to the smaller display execution. The primary reasons for preference for the large picture and text display, as opposed to the smaller display execution, were:

- The <u>prominence of the larger visual display</u>, in particular the simple fact that from the perspective of maximising impact, the bigger the pictorial image the better. That is, for similar reasons to preference for the yellow text on black background, it is more likely to stand out against branding positioned elsewhere on the packet.

- That <u>when a pack is opened, at least some of the message remains visible on the front of the pack</u> (as opposed to the entire pictorial and text message being "lost" when the pack is opened for the 30% of display area display execution). However, as discussed below, it was suggested that message impact might be enhanced by swapping the positioning of the picture and text, i.e. position the text on the pack flip-top lid, and the picture on the main body of the packet.

A summary of key considerations and verbatim comments supporting the large picture and text display execution preference, and/or reasons against the small picture and text display, included:

The large picture draws you toward the pack, is "in your face", and the accompanying text is easier to read – the text has the potential to get "lost" with the smaller picture.

The small message is lost completely when the pack is opened (i.e. all but the small Ministry warning disappears from the front of the pack). Conversely, when the large picture pack is opened at least the text remains clearly visible on the front of the pack (however, it was consistently mentioned that the text and picture might have more impact if reversed, i.e. text <u>above</u> the flip-top lid, and picture <u>below</u> so that it remains visible on the front of the pack).

"The big picture is easier to understand because you don't have to look so hard."

"The small picture is too small."

In contrast, although possibly a symptom of influencing effects created by dominant participants, participants in one group tended to prefer the small picture and text display, as its impact was perceived to be enhanced by having the text <u>alongside</u> the picture, as opposed to beneath. Conversely, the larger picture display was considered the sole focal point, and the accompanying text "lost". However, this group of participants also suggested the picture and text would have more impact if positioned below the flip-top lid, so as to not be lost when the pack is opened.

Importantly, we do not consider this "outlying" finding carries sufficient weight to justify development and further testing of small picture and text warnings (30% of display area), at the expense of large picture and text warnings (50% or more of display area).

By way of an enhancement to the large picture and text display option (and indeed mitigating against reasons for preferring the small picture and text display as summarised above for the "outlying" group), some suggested that the large picture and text be positioned at the <u>bottom</u> of the pack (i.e. where the brand is currently positioned), and the top of the pack reserved for branding. This was suggested so that impact is not detracted from when the packet is open.

Alternatively, it was also suggested the placement of the combined picture and text be swapped so that the picture remains on the front of the pack, and the text on the flip-top lid:

> *"If the writing on the top was down at the bottom as well".*

> *"What about words on top [of top 50% of display area] and picture on bottom [of top 50% of display area]."*

> *"Have the larger type [text message] down at the bottom."*

> *"It is better off if it is down there [bottom of the front of pack]."*

> *"Maybe if they swap it around with the message on the bottom, it may stand out more."*

> *"Down at the bottom instead of just on the lid – on a normal packet of cigarettes they have got their logo there."*

> *"Put the picture below where the brand is."*

However, one consideration might be that front of pack messages be positioned at the top of the pack, in order that health warnings are most visible at point-of-sale. Importantly, feedback with regard to top cf. bottom of pack placement quite probably mitigates against the risk of losing message impact because of the split message when a pack is opened. Specifically, it was mentioned that cigarette packs spend most of their time closed, are rarely left open, and therefore message impact is only momentarily lost when the packet is open:

> *"Most people close their cigarette packets."*

> *"A packet of cigarettes would spend most of its life mostly closed, face up."*

> *"No because you are going to close your packet at sometime."*

5. "Balance" test

The "balance" test was designed to test a <u>large picture and text</u>, compared to <u>large text only</u> (both 50% of front of pack display area).

As previously discussed, the large picture and text was overwhelmingly preferred to the (large) text only display execution, for the overriding fact that:

- <u>Pictorial or graphic imagery was considered a significantly more powerful way of communicating smoking health warnings</u>, as opposed to text-only display executions.

A summary of key considerations and verbatim comments supporting the large picture and text display execution preference, and/or reasons against the text only display, included:

> Relating specifically to the *"you're not the only one smoking this cigarette"* message, the text on its own was considered as leaving message interpretation wide open for generalisation. In contrast, the picture really makes them think about who they might be affecting with second-hand smoke, i.e. "externalises" the health warning rather than being solely about the smoker him/herself.

> The border around the picture was considered to really make the message stand out.

> *"Would still know what the picture was trying to convey without the text."*

> Some participants reported that they would feel uncomfortable smoking around others if they had this picture (*"you're not the only one smoking this cigarette"*) visible on the front of their cigarette pack.

> *"The text tells you the effects but the picture shows you. More hard hitting."*

> *"Picture speaks volumes."*

> *"I don't read what is on the packet."*

> *"It [text only] tells us; it doesn't show us."*

> *"You just don't read them [text messages]."*

In contrast, it was mentioned that while the picture and text had significantly more impact, it was important that the accompanying text be kept short and to the point, otherwise it risked losing impact and/or becoming "lost" to the picture. Related, it is important that the text support the pictorial image and vice versa, i.e. there needs to be an explicit and unambiguous association between the picture and text.

6. Side of pack messages

As discussed earlier, three general side of pack messages were tested, as follows:

- The key message "there is no such thing as a safe cigarette", and the supporting text:

  - "Smoking delivers nicotine in a highly addictive form making it hard to control the amount you smoke or to quit. When you smoke you inhale more than 40 poisons which are known to cause cancers, damage lungs, and clog up blood vessels. These poisons include: tar, nitrosamines, benzopyrenes and carbon monoxide."

- A shorter version explaining some of the chemical constituents of the smoke of each cigarette, as follows:

  - "Toxic emissions/unit: Tar – 11-29mg; Nicotine – 1.2-2.7mg; Carbon Monoxide – 11-25mg."

- A longer version explaining some of the chemical constituents of the smoke of each cigarette, as follows:

  - "Toxic emissions/unit: Tar – 11-29mg; Nicotine – 1.2-2.7mg; Carbon Monoxide – 11-25mg; Formaldehyde – 0.048-0.13mg; Hydrogen Cyanide – 0.098-0.25mg; Benzene – 0.040-0.080mg."

Overwhelmingly, participants reported that side of pack messages, whatever they might be, are rarely if ever read. As such, it was uniformly considered that if such messages were to have any impact at all, they would be best positioned on the front of the pack, or at least the back, and be short, sharp and to the point:

"Smokers never read the back and something that small."

"I have never read the side of the packet."

"I really don't think its effective regardless of what it says."

"The less there is the faster you can take it in."

"The little writing… you hardly ever read them."

"Just the phone number and "cigarettes are highly addictive" – definitely not all of it."

"I couldn't be bothered reading that – short and simple."

"Most people don't really read everything."

"Wouldn't be read."

In terms of reactions to the three side of pack message areas, the message *"there is no such thing as a safe cigarette"* was <u>not</u> well received. Comments and/or aspects supporting this consideration included:

> It was generally considered a "pointless" message from the perspective of "tell me something I <u>don't</u> know", "no kidding", "so what"; and lacked sufficient shock value, or is not hard-hitting or strong enough ("smoking kills rapidly"). E.g. considered to have as limited impact as a message like "a gun shoots bullets".

> *"But you would think they could come up with something better than that."*

> *"It is not a very strong message."*

> *"It is saying nothing that I didn't already know."*

> *"Make it harder… something that sums it up; like 'the poisons in cigarettes kill'; that is short and sweet."*

> *"Something like 'you are going to die' – straight to the point and something dramatic; shock tactics."*

> *"It is a weak line, it doesn't really impact on you."*

> *"It is still airy fairy."*

> The additional text supporting this "tagline" was also not well received, with the primary reason being it was considered to be simply too much text, and to a lesser extent, too much jargon (but not nearly as much jargon as the two chemical content side of pack message variants – see below).

> *"Need a dictionary to read this. You can't use these big words if you want to get a message through to your average Joe Bloggs".*

However, while on balance not considered a particularly effective message, in its favour some respondents felt it would have more impact if repositioned (as discussed above), and made more visible by use of a bolder colour scheme, e.g. yellow on black as for front of pack messages tested.

With regard to the <u>brief chemical content</u> message, primarily due to its side of pack positioning it was also reported that it would be unlikely to be read, and not a particularly powerful message, i.e. lacks sufficient impact.

By extension, the same applied to the <u>longer chemical content message</u>, but it suffered further from confusion and/or ignorance as to what the chemicals meant, or a contextual basis by which smokers might understand what the content levels meant in terms of smoking-related harm. Specific comments and/or aspects relating to the impact of both the brief and longer chemical content messages, included:

> Overwhelmingly, few would know what these chemicals are/mean, and therefore a waste of time, and/or the message would be ignored. Specific chemicals subject to very low levels of understanding/knowledge were formaldehyde, hydrogen cyanide, and benzene.

> *"I think if they backed it up by saying 'how much that amount could do to you'; not many people know how much that is [milligrams], you could compare it with, like, a square centimetre of road has that much tar."*

> *"Yes, but we don't really understand it – it is just words and numbers."*

> *"I can't even understand half of those words."*

"It's just telling you exactly what you are putting into your body. It's just useless information."

"Poisons. The actual names of them, it means nothing."

"But those names and numbers don't mean anything to me."

"I don't even know what they mean."

"11-29 milligrams… what the hell is that?"

"The measurements are hard to understand."

"You can't equate it to anything... it has no meaning."

"I think if I was reading these words on this side, I would look at them and laugh and mock the words 'formaldehyde', etc.; I just don't know what they mean."

"That has no meaning to me… I don't even know what it [chemicals] is."

"You need a dictionary to read this."

It was suggested by a few participants that the term "toxic emissions" might be replaced by "deadly emissions".

On a more positive note, it was suggested that a graphical illustration of a cigarette broken down into its poison components would have significantly more impact. It was also suggested that the impact of the chemical content might be enhanced by reporting the specific (adverse) health or physical effects of the toxins.

"I think more to the visual thing – you could have the length of a cigarette and divide it up into different colours, saying 'this is the percentage of the poison'."

Appendix A: Discussion guide

SMOKING HEALTH WARNINGS STAGE 2 – PN2946

DISCUSSION GUIDE

MAXIMUM 1½ HOURS

A: Introduction to the research – 5 mins

• Introductions of researchers and explanation of BRC's role in the research.

• Position the research as seeking input into the optimal design and display of smoking health warnings on cigarette packs. Explain that the main objective of the discussion is to compare and discuss the different ways in which the message is displayed. I.e. to not dwell too much on the message itself, as a previous research study has already confirmed the message as having an impact, or "striking a chord", with consumers.

• Assure confidentiality (i.e. our professional code of ethics and only collective responses will be reported back to our clients).

• Explain how the group will be run and the length of the group discussion – at most 90 minutes.

• Remind participants to turn off their phones.

B: Discuss pros & cons of Image 3 (red on white) v. Image 4 (yellow on black) text only messages – 15-20 mins

Primary objective: To test message <u>colour</u>, specifically:

▪ *To provide in-depth insight into the relative strengths & weaknesses of red on white message display compared to yellow on black message display.*

> ▪ Probe for general opinions and comparison of red on which message versus yellow on black messages.
>
> ▪ Pros and cons of <u>each</u>.

▪ Which of these messages is likely to encourage a change in smoking behaviour?

  o How come?

▪ (Compare message comprehension) Which is easier to understand.

  o How come?

  o What, if any, difficulties in understanding?

- Which is more helpful/informative?
  - How come?
    - Which, if any, piques interest in terms of drawing the reader into the message?
- Which is most likely to "strike a chord"?
  - How come?
- Which is most likely to successfully convey the health effects of smoking?
  - How come?
- <u>Probe for reactions to message impact when the pack is opened cf. closed</u>:
  - Does the message have the same impact when opened?
    - How come?
    - What in particular about the message is "lost"/compromised?
- <u>Any suggestions for improvements</u>?
  - To the red on white message display?
  - To the yellow on black display?

C: Discuss pros & cons of Image 1 (large picture & text) v. Image 2 (small picture & text) – 15-20 mins

Primary objective: To test message <u>size</u>, specifically:

- *To provide in-depth insight into the relative strengths & weaknesses of large picture & text display compared to small picture and text.*
- *Ensure all respondents have an opportunity to "play around" with pack mock-ups, including opening and closing packs.*

> - Probe for general opinions and comparison of large versus small picture and text messages.
> - Pros and cons of <u>each</u>.

- Which, if any of these messages is likely to encourage a change in smoking behaviour?
  - How come?
- (Compare message comprehension) Which is easier to understand.
  - How come?
  - What, if any, difficulties in understanding?
- Which is more helpful/informative?
  - How come?
    - Which, if any, piques interest in terms of drawing the reader into the message?

- Which is most likely to "strike a chord"?

  o How come?

- Which of these is most likely to successfully convey the health effects of smoking?

  o How come?

- <u>Probe for reactions to message impact when the pack is opened cf. closed</u>:

  o Does the message have the same impact when opened?

    ▪ How come?

    ▪ What in particular about the message is "lost"/compromised?

- <u>Any suggestions for improvements</u>?

  o To the small display?

  o To the large display?

D: Discuss pros & cons of Image 1 (picture & text) v. Image 3/4 (text only) – 20-25 mins

Primary objective: To test <u>picture and text </u>message against <u>text only</u>, specifically:

- *To provide in-depth insight into the relative strengths & weaknesses of picture and text message display compared to text only display.*

- Probe for general opinions and comparison of picture and text versus text-only messages.

- Pros and cons of <u>each</u>.

- Which of these messages is likely to encourage a change in smoking behaviour?

  o How come?

- (Compare message comprehension) Which is easier to understand.

  o How come?

  o What, if any, difficulties in understanding?

- Which is more helpful/informative?

  o How come?

    ▪ Which, if any, piques interest in terms of drawing the reader into the message?

- Which is most likely to "strike a chord"?

  o How come?

- Which is most likely to successfully convey the health effects of smoking?

  o How come?

- Probe for specific reaction to the use of graphics/pictures:
    - In terms of the <u>supporting text message</u>, is the picture realistic/credible/believable?
        - How come?
    - Does the picture convey health information?
        - How come?
        - On its own?
        - Only when supported by a text message?
        - Does it <u>detract from/work against</u> the text message?
        - Colour?
        - Emotional impact, e.g. not shocking enough? About right? Too shocking?
- Probe for reactions to message impact when the pack is opened cf. closed:
    - Does the message have the same impact when opened?
        - How come?
        - What in particular about the message is "lost"/compromised?
- <u>Any suggestions for improvements</u>?
    - To the picture and text message display?
    - To the text-only display?

E: Side of pack messages – 10-15 mins

Primary objective: to gauge reaction to the standard <u>"there is no such thing as a safe cigarette" message.</u>

Secondary objectives:

- *To gauge reaction to the text that <u>accompanies</u> this standard message.*

- Probe for general opinions and reactions to the standard message – *"there is no such thing as a safe cigarette".*
- Explore pros and cons.

- What is it trying to say? What does it mean?
    - How come?
- Will this <u>add</u> to the impact of the message displays previously discussed, or <u>detract</u>?
    - How come?
- Does the line "there's no such thing as a safe cigarette' fit with the rest of the side of pack message?
    - How come?

- What is the rest of this message trying to say? What does it mean?
    - How come?
- Does this extra message information <u>add to/support</u> the overall impact of the side-of-pack message, or <u>detract</u>?
    - How come?

Allow participants time to familiarise themselves with the alternative <u>chemical content</u> side-of-pack message.

To gauge reaction to the alternative <u>chemical content</u> message (only short version printed on pack mock-ups so full message tested/compared in the form of a scaled-to-size stand-alone label).

- What is this (brief chemical content) message trying to say? What does it mean?
    - How come?
- How does this side-of-pack message about chemicals compare to the other side-of-pack messages?
    - How come?
- Is it more/less informative?
    - How come?
- Are there specific aspects that are easy/difficult to understand?
    - How come?

Pass around alternative <u>chemical content</u> side-of-pack message and allow participants time to read and understand.

- What is this (full chemical content) message trying to say? What does it mean?
    - How come?
- Are there specific aspects that are easy/hard to understand?
    - How come?
- Is it "better" or "worse" than the shorter version (already printed on pack mock-ups)?
    - How come?

General opinions/reactions to all side-of-pack messages.

- Thinking about <u>all side-of-pack messages</u>, which one has the <u>most</u> impact?
    - How come?
    - Which particular side-of-pack message is <u>most</u> likely to encourage a change in behaviour?
        - How come? In what way(s)?

- And which one has the <u>least</u> impact?

    - How come?

    - Which particular message is <u>least</u> likely to encourage a change in behaviour?

        - How come? In what way(s)?

- In what way(s) could the impact of any of these messages be enhanced?

    - How come? In what way(s)?

    - Which particular message(s)?

F: Self-completion questionnaire – 10 mins

Objective: To provide a preliminary, "un-conditional" quantitative ranking of message impact.

<u>Instruction</u>: Invite group participants to briefly compare and contrast the four alternative message designs, and on the questionnaire <u>rank</u> the four designs in terms of most (=1), to least (=4) impact, and to write any specific comments about why/why not a particular message strikes a chord with them.

    - Explain that this exercise is designed to help them start thinking about the topic.

G: Close

Thank participants and ask for any further comments.

Provide incentive.

Appendix B: Self-completion questionnaire

Name: _____

Instructions: *Take a few moments to look over the four different cigarette packs, which all contain the <u>same</u> general message, but displayed differently. Please <u>rank</u> the packs from 1 to 4, where 1 means the message display format that <u>best</u> conveys the health message to you, through to 4 (the format that <u>least</u> conveys the health message).*

Please write any comments relating to your reasons for ranking a particular display format as you have.

	RANK **Most impact = 1** **Next most impact = 2** **2nd least impact = 3** **Least impact = 4**	**COMMENTS**
IMAGE 1: **LARGE PICTURE AND TEXT**		
IMAGE 2: **SMALL PICTURE AND TEXT**		
IMAGE 3: **LARGE TEXT (RED & WHITE TEXT ONLY)**		
IMAGE 4: **LARGE TEXT (YELLOW & BLACK TEXT ONLY)**		

Appendix C: Warning message pack mock-ups