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PROPOSED FRONT-OF-PACK FOOD LABELLING DESIGNS: QUANTITATIVE RESEARCH OUTCOMES

17 April 2013



1. EXECUTIVE SUMMARY

NOTE: This report presents recommendations 'from the consumer perspective', based on the claimed needs and attitudes of consumers when it comes to food and nutrition. These needs and attitudes may not always align with medical, nutritional and related literature. We acknowledge that this literature needs to be taken into account in any decision on a final FoPL design and content.

This report is based on quantitative research amongst a representative sample of n=1,089 Australian consumers, conducted following an initial qualitative stage. The objectives of the quantitative research were a) to validate key recommendations from the qualitative component in regards to design and information contained within an optimal FoPL system, b) to build upon the qualitative insights, by further testing and fine-tuning proposed FoPL design components, and c) gain some understanding into the potential impact of the proposed FoPL on consumer food purchase choices.

Supporting the qualitative findings, evidence in this report suggests a strong level of support for a FoPL system. Over 90% of our consumer sample felt that a FoPL concept was a good idea. Furthermore, when it comes to influencing food purchase choices, consumers attributed a similar perceived importance to a FoPL system as to more fundamental purchase drivers, such as the taste and price of the food. A FoPL system was seen as something that would be more important in driving food purchase choices than the brand of the food or the level of convenience associated with a particular food.

The Overall FoPL design tested in this research (based on recommendations from the qualitative research) was shown to have significantly higher potential to influence food purchase decisions than either a) current information available on food packs, or b) the existing Daily Intake Guide.

Respondents showed a reasonable level of understanding of the Overall proposed FoPL design, rating a mean score of around 7/10 (0-10 scale, where 10 means "completely understand" what label is communicating), which is the same score as the existing Daily Intake Guide received from respondents in regards to understanding. Note also that limited information was provided about the label or its interpretation. For example, although the broad concept of the star rating system was communicated, details were not provided around the underlying algorithm. Likewise, detailed explanation of the meaning of some of the components of the labels presented (e.g. "DI %", "Low/Medium/High") were not provided. Assuming that the FoPL system will be launched in parallel with a public education campaign, there is no strong evidence that consumers would have trouble understanding the labels. There were two noteworthy demographics where mean scores for understanding were slightly (but statistically significantly) lower than the broader population - retirees and consumers in NSW. A public education campaign may need to pay additional attention to these groups.

Consumers are likely to have varying degrees of reliance on a FoPL system when buying different food groups. The food groups for which consumers are most likely to use FoPL to inform their food purchase choice are cereals, snacks, convenience meals, biscuits, and juices/drinks, while purchase decisions around fresh foods (fruits and vegetables, and meats) are least likely to be impacted by FoPL.

The quantitative research provided robust and representative support for most of the design recommendations emerging from the qualitative component, as well as providing additional recommendations. Overall design recommendations from the qualitative research that are supported here:

- A box to enclose all elements of design
- The grey backed design option tested (Tank design)
- Be presented as a stacked display with star rating element sitting above nutrient elements
- Use of the 'Health Star Rating' name
- Incorporate the slider in the star design element
- Express all values as per 100 grams
- Include the term "kilojoules" rather than "energy"

Additional design recommendations assuming a label with "fixed" negative nutrients (i.e. the same nutrients across all food groups):

- <u>Use "Low/Medium/High" rather than "DI %"</u>: consumers find the former easier to understand and quicker to read
- Consider including six nutrients in the label (including Kilojoules): Although respondents rated "5 nutrients" as the optimum number, there is evidence that six nutrients may be optimal in order to include all of the key information that consumers want to see (in particular, an emerging need to include both "Total Fats" and "Saturated Fats", as discussed below). Note also that the current DIG label often includes both Total Fats and Saturated Fats. If FoPL will replace DIG, inclusion of six nutrients may ensure that there is no perceived detriment in the amount and usefulness of information on the front-of-pack
- Include "Total Sugar", rather than "Sugars": Although these terms are intended to have the same meaning, the former is more easily understood by consumers and was consistently attributed more value.
- <u>Include "Total Fat" and "Saturated Fat"</u>: both of these nutrients were considered amongst the most important to include (indeed, "Total Fat" was consistently seen as more important than "Saturated Fat").
- Include "Sodium": At an overall level (i.e. when discussing a label without reference to specific food group), Sodium was not considered one of the more important nutrients (in fact, it was 9th out of 14 nutrients in the list in importance). However, Sodium was considered important when referring to certain food groups (e.g. pre-prepared/convenience meals). Overall, there was a surprising lack of importance attributed to Sodium. A potential reason for this is that a portion of consumers may not be making the connection between "Sodium" and "salt", the latter of which has more negative health connotations (note that this is a hypothesis only and would need to be supported by further research).
- Include one positive nutrient, adapted by food group: Positive nutrients were important to consumers, but our results suggest that consumer needs for positive nutrient information differed markedly across food types. While fibre was "overall" (i.e. without reference to a food group) the

most important positive nutrient, the picture changed when talking about meats/chicken/fish (where protein was by far the most important), Dairy (calcium), and juices & drinks (Vitamin C). Interestingly, no positive nutrients were considered important when referring to preprepared/convenience meals. Further research may be needed to go into all food groups in detail to determine which positive nutrients are most important for each food type (from a consumer perspective).

Evidence presented here suggests that, of the two core elements of the proposed FoPL (namely, the star ratings and nutrient elements), the star ratings element appears to contribute the most importance or impact on consumers. This is most evident when comparing respondents' ratings of the extent to which the two different elements would influence their food purchase decisions. Specifically, mean ratings for the nutrient element (in terms of influence on food purchase decisions) were lower than for existing nutritional information on food packaging, while mean ratings for the star element were significantly higher than either existing information or the nutrient element. Note however, that mean ratings of the *complete* label (i.e. star and nutrient elements combined) are higher still, suggesting that the nutrient element does add to the overall impact of the proposed FoPL label.

2. RESEARCH BACKGROUND AND METHODOLOGY

2.1 RESEARCH CONTEXT

The development and introduction of a system of comparative front-of-pack labelling (FoPL) for food stems from an agreement by the Legislative and Governance Forum on Food Regulation to support recommendation 50 of the Labelling Logic: Review of Food Labelling Law and Policy (2011). The recommendation states that the FoPL scheme is designed to guide consumer choice towards healthier food options and to guide choice in a number of ways:

- 1. By enabling direct comparison between individual foods that, within the overall diet, may contribute to the risk factors of various diet-related chronic diseases.
- 2. By being readily understandable and meaningful across socio-economic groups, culturally and linguistically diverse groups and low literacy/low numeracy groups.
- 3. By increasing awareness of foods that, within the overall diet, may contribute positively or negatively to the risk factors of diet-related chronic diseases.



The following design principles have been set for FoPL development:

In addition it is a requirement that the system be based on elements that inform choice by assessing both health-benefit and health-risk associated food components; and that the system comprise both the FoPL scheme and consumer education elements.

2.2 PRELIMINARY FINDINGS FROM THE QUALITATIVE RESEARCH PHASE

This report was preceded by a qualitative stage of research, of which the detailed objectives included an understanding of:

 Consumers' knowledge, attitudes, intentions and behaviour regarding food labelling and purchase choices

- Consumers' ability to accurately use and understand proposed design elements (interpretive and nutrient)
- The likely impact of the proposed FoPL system on consumer choices
- Guidance for further design development.

Of relevance to this report were the key preliminary findings related to optimal design of a FoPL system. On the basis of the qualitative findings as to consumer preference and the extent to which the overall design will facilitate healthier food choices, the optimal FoPL design (which was subject to confirmation by the quantitative phase of the study) is likely to have the following design features:

- A box to enclose all elements of design
- The grey backed design option tested (Tank design)
- Be presented as a stacked display with star rating element sitting above nutrient elements
- Use of the 'Health Star Rating' name
- Incorporate the slider / number in star design element
- Express all values as per 100 grams
- Include the three 'negative nutrients' of saturated fat, sodium and total sugar (nb: use of term sugar/s in interpreted to mean total sugar)
- Include the term "kilojoules" rather than "energy"

With regard to the inclusion of positive nutrients – further consideration and testing was needed (also to be delivered through the quantitative study) as to:

- What are the 'positive nutrients' of relevance to include (and by food group)
- Whether relevant 'positive nutrients' should be included alongside the 'negative' nutrients
- Whether 'positive nutrients' should be included but separated from 'negative' nutrients, or
- Whether nutrient information should be restricted to the three 'negative' variables only

These, and additional, questions were explored in this study (see next section for research objectives).

2.3 **OBJECTIVES OF THIS RESEARCH**

Broadly speaking, there were three key aims of the quantitative study:

1. <u>To test and validate the design recommendations emerging from the qualitative stage of the research</u>: The qualitative research was intentionally designed to be "exhaustive" (in terms of the different consumer demographics and segments that were included and whose reactions to the proposed FoPL designs were sought), but not necessarily "representative". Hence, the design recommendations emerging from the qualitative phase needed to be tested amongst a more representative sample of Australian consumers, in order to ensure that ultimate FoPL design recommendations accurately reflected the needs and attitudes of all consumers.

- To build upon insights gained in the qualitative research, by further optimising the FoPL design: Including an understanding of which positive and negative nutrients are most important to consumers (and by key food group), as well as testing various FoPL designs to determine which were clearest and most meaningful to consumers.
- 3. <u>To gain some understanding as to whether the new FoPL system would have an impact on consumer behaviour</u>: while detailed modelling of consumer behaviour and purchasing in response to the FoPL system was outside the scope of this study, a number of metrics were included to determine whether the proposed FoPL would have a significant influence on consumers' food purchasing, and also whether the proposed FoPL system would have more or less influence on consumers than existing nutritional information found on food packaging or labelling systems (specifically the current "Daily Intake Guide").

The specific objectives of quantitative component of the study were to:

- Test and optimise the Star Rating element of the label
- Test and optimise the Nutrient element of the label, including:
 - The relative importance of stars versus nutrient elements for consumers
 - Consumer perception of relative importance of different positive and negative nutrients and which should be included on the label, and how/whether this differs by food groups and consumer segment
 - Consumer perception of relative importance of negative and positive nutrients to overall health
 - The use of specific variants of terminology (e.g. "energy" versus "kilojoules")
 - The use of "Daily Intake" versus "Low/Medium/High" as indications of nutrient content
 - Optimal number of nutrients to include on the label
- Test and optimise a "complete" label (designed based on insights from qualitative component of the research), including:
 - Test four variants of a complete FoPL to determine which is most meaningful to consumers
 - Determine whether the new label would have a greater influence on consumer purchase choices than existing information found on food packaging and other labelling schemes (specifically the Daily Intake Guide)

The next section highlights the methodology used to address these objectives.

2.4 METHODOLOGY

2.4.1 Broad approach

A 25 minute online survey was conducted amongst a sample of n=1,086 respondents, randomly invited from an online access panel (see sample demographics section for a breakdown of the sample). Quantitative fieldwork was undertaken between the 4th and 8th March.

In addressing the research objectives, the quantitative survey was designed such that the FoPL system could be tested both holistically, as well as in its components parts. The general approach to addressing the objectives outlined in the previous section was to:

- Break down the labelling system into its component parts and test each of these component parts in isolation: these "components parts" consisted of the "star-rating" element and the "nutrient" element (note that these, and all other components and labels tested in the research, can be seen in the following *Stimulus* section). The key metrics used to test the label components were: the extent to which the components would influence purchase choice; the extent to which consumers would read the labels if they were available; and which component variants were most meaningful to consumers.
- <u>Then test "complete" labels (consisting of all component parts arranged into different variants,</u> <u>designed to emphasise different components of the label)</u>: These complete labels were based on qualitative insights into optimal design and information required in a FoPL system.

Given the subject matter of the survey, a considerable amount of visual stimulus was presented and tested amongst respondents. This stimulus is shown in the next section.

2.4.2 Stimulus

The various labels (or components of labels) that were tested in the survey are detailed below.

Two images showed variants of the star rating system, which were used to distinguish consumer response between a star rating alone compared to a 'star rating with slider' mechanism.

Images were used to determine difference in consumer response between the terms "Kilojoules" versus "Energy".

Images were used to measure understanding, amount and type of nutritional information and meaningfulness of the labels denoting the amount of the nutrient (i.e. "Low/Medium/High" and "DI")

Images were used to assess whether "Per100g" or "Per 175g serve" was most meaningful to consumers.

Three images below were used to assess consumers' understanding, potential impact on purchase choice and overall meaningfulness of the three key ways of denoting nutrient amounts (i.e. "Low/Medium/High", "DI" or simply neither of these).

Four images were presented as part of the final section of the survey in which a "complete" FoPL label was evaluated. The "Original" was used as a base case, and was assessed in regards to potential influence on purchase behaviour and the extent to which this influence was greater or less than nutritional information and existing labelling systems (i.e. Daily Intake Guide) on food packaging. The "Original" label shown below was designed based on the preliminary recommendations emerging from the qualitative phase in regards to optimal label design and nutrient information.

The image below was used in the last section of the survey so that the proposed FoPL label could be compared to the existing Daily Intake Guide in terms of understanding, usefulness, and impact on food purchase choices.

Existing Daily Intake Guide



2.4.3 Sample Demographics

The broad demographic breakdown of the sample is shown in Table 1, which shows a good mix of demographics. Note that the slight skew towards females reflects sampling quotas which favoured main grocery buyers (at least 70% of the sample was to be "the person mainly or jointly responsible for the majority of the grocery shopping in your household"

Table 1. Key Demographics

Characteristic	Frequency %
Gender	
Male	43
Female	57
Age	
18-24 years	13
25-29 years	8
30-34 years	9
35-44 years	17
45-54 years	18
55-64 years	17
65-75 years	11

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Characteristic	Frequency %
75+ years	8
State/Territory of residence	
NSW	30
Victoria	27
Queensland	18
Western Australia	10
South Australia	11
Tasmania	3
ACT	1
Northern Territory	1
Area of residence	
Capital city	57
Regional centre	25
Country town	12
Rural or remote locality	6
Highest level educational attainment	
Year 9 or below	4
Year 10 or 11	14
Year 12 or high school equivalent	18
TAFE certificate or diploma	35
Bachelors degree	16
Postgraduate qualification	9
Don't know/prefer not to say	1
Current situation	20
Working full-time	29
Working part-time	11
Home duties	11
Retired	6
Student	8
Not in the workforce	2
Other	2
Working Industry	
Agriculture, forestry and fishing	3
Manufacturing	4
Electricity, gas and water supply	1
Construction	6
Accommodation, cafes and restaurants	2
Transport and storage	5
Government	8
Education	10
Health and community services	14
Mining	2
Other	41
Don't know/prefer not to say	5
Household Description	14
Young single or couple (no children)	9
Young family (oldest child under 6 years)	11
Middle family (oldest child 6-15 years)	21
Mature family (oldest child over 15 years)	37

Characteristic	Frequency %
Mature single or couple	7
Oner (Please Specify)	2
Origin Aboriginal or Torres Strait Islander	
Yes	2
No	97
Don't know/prefer not to say	1
Annual Personal Income	05
Up to \$20,000	25
\$20,001 to \$35,000	19
\$35,001 to \$50,000	13
\$50,001 to \$75,000	9
\$75,001 to \$100,000	3
\$100,001 to \$150,000	1
\$150,001 to \$200,000 More than \$200,000	0
	17
Annual Household Income	7
\$20,000 \$20,001 to \$35,000	1
\$35,001 to \$50,000	14
\$50,001 to \$75,000	17
\$75,001 to \$100,000	15
\$100,001 to \$150,000	11
\$150,001 to \$200,000	4
More than \$200,000	2
Don't know/ prefer not to say	17

Key demographic questions: S1-S3, D1-D12.

RESEARCH FINDINGS

3.1 NOTES ON STATISTICAL TESTING AND REPORTING

Note that throughout this report, results are reported as statistically significant if differences are found to be significant at an alpha rate of 0.05. Statistical differences are indicated by "**", and refer to a difference from the overall mean (unless indicated otherwise).

Note also that any consistent differences found by demographics are also reported where appropriate.

3.2 BASELINE BEHAVIOUR AND ATTITUDES TOWARDS EXISTING NUTRITIONAL INFORMATION

Three questions were used to establish 'baseline' levels of use and perceptions of nutritional information on food packs. These questions were asked before presentation of any labels (and indeed, before any detailed mention of what the rest of the survey were about). The mean rating scores for these questions were then compared to ratings later in the survey (i.e. in response to various label elements and complete labels). The questions examined:

- The extent to which consumers look at existing nutritional information on food packs
- The influence of existing nutritional information on food purchases
- Whether the amount and type of information is too little, too much, or just right

The baseline results are shown below (note that although these questions are useful in understanding existing attitudes/behaviour towards nutritional information on food packs, they are most useful in later sections when evaluating the change in potential attitudes and behaviours relating to the proposed FoPLs, or components of the labels). The chart below shows mean scores for the frequency with which consumers look at existing nutritional information on food packaging and also their claimed level of influence of existing nutritional information on their food purchase choices (both means.





C1. How often do you look at the nutritional information on food packaging? (0=Never, 10=Every time I buy a food)

C2. To what extent does the current nutritional information on food packaging influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

As can be seen in Chart 1 above, mean scores on both questions (around 6 out of 10) suggest a medium level of reliance on existing nutritional information.

Chart 2 (below) also shows the extent to which consumers feel that there is too little, too much, or just the right amount of nutritional information on existing food packaging. Note that in the scale used for this question, the "ideal" rating is "5", representing "just the right" amount of information.

Chart 2. Baseline Level of Extent to Which Nutritional Information Available on Food Packs is Appropriate for Consumer Needs



C4. Please indicate whether the amount of nutritional information currently found on food packaging is too much, not enough, or just right for your needs? (0=A lot less than I need, 5=just right for my needs, 10=A lot more than I need).

Average ratings were just over 5, suggesting that consumers currently feel that they have close to the "right" amount of information for their needs (if anything, slightly more than they need). Note however, that this result needs to be interpreted with caution – we often find that consumers "don't know what they don't know", and often re-evaluate the extent to which their needs are met when presented with new concepts, information, products or services which can enhance their daily lives (this is, in fact, something that we find in this research – as can be seen in subsequent sections where we examine the potential impact of proposed FoPL on consumer purchase choices).

3.3 OPTIMISING STAR RATING DESIGNS

The first key element of the FoPL system that was tested is the Star Rating. Respondents were presented with an image and given a brief explanation of the rating system (where it would be found and how it would be interpreted).

Respondents were then asked to provide rating of how often they would look at the label and the extent to which the label would influence their food purchase choices if the star rating system was present on the front of all food packs.

The results are shown in Chart 3 (below), where mean scores provided on both measures for the star ratings are compared to baseline mean scores (i.e. pre-exposure to FoPL components).



Chart 3. Health Star Rating Frequency and Influence.

C1. How often do you look at the nutritional information on food packaging? (0=Never, 10=Every time I buy a food)

C2. To what extent does the current nutritional information on food packaging influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

ST2a. Imagine that all packaged food items that you buy have a nutritional "star rating" label such as the one shown above on the front of the pack. How often would you look at the label when purchasing food? (0=Never, 10=Every time I buy a food)

ST2b If it were present on food packaging, to what extent would a star rating label such as the one above influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

The results in Chart 3 show a statistically significant increase compared to current baseline levels in both the frequency that consumers expect to check the label, and the extent to which they feel the label will influence their food purchase choices.

Consumers were then shown two designs distinguished by a slider mechanism. Respondents were asked to select the design that they felt was most meaningful to them.

The results shown in Chart 4, below detail that a significantly higher proportion of the sample felt that the 'stars with slider' variant was most meaningful.



Chart 4. Comparison of Original Star design to Stars with a Slider Mechanism

ST3a. Which of the two designs is more meaningful to you?

3.4 OPTIMISING NUTRIENT ELEMENTS (KILOJOULES LABEL)

3.4.1 "Kilojoules" versus "Energy"

Participants were first shown two label variants and asked to indicate whether 'Kilojoules' or 'Energy' were more meaningful.

The results shown in Chart 5 below indicate that 'Kilojoules' is significantly (but mildly) more meaningful to consumers, with just over half the sample (53%) selecting this variant. This result supported findings from the qualitative phase of the research.





3.4.2 "Low/Medium/High" versus "Daily Intake %"

Building on this design, additional components were introduced denoting the level of nutrient – these were 'Low/Medium/High' and 'DI %'.

Respondents were first asked to indicate their relative level of understanding of each variant. The results are shown in Chart 6, below.

N1. Which of these variants is most meaningful to you?



Chart 6. Understanding of the Three Different Labels

N2. For each of the labels above, please rate the extent to which you feel that you understand everything the label is communicating. (0=I don't understand at all 10=I completely understand)

In relation to overall means, the 'Absolute Values' label has the highest level of understanding, while the 'Daily Intake %' and 'Low/Medium/High' labels have roughly similar levels, both of which are lower than 'Absolute Values'. This result suggests that any addition of information to the label will naturally decrease the ease of with which consumers understand the label, and will therefore require a campaign to increase consumer understanding.

Respondents were then asked whether the amount of nutritional information shown on the three labels was too much, not enough, or just right for their needs.

The results (as shown in Chart 7 including comparison to the baseline) show that all three variants are significantly below baseline, suggesting that respondents feel that the labels alone do not contain enough nutritional information for their needs.



Chart 7. Amount and Type of Nutritional Information.

C4. Please indicate whether the amount of nutritional information currently found on food packaging is too much, not enough, or just right for your needs? (0=A lot less than I need, 5=just right for my needs, 10=A lot more than I need).

N3 If some food packs were only to contain information on kilojoules, on the scale shown below, please indicate whether the amount and type of nutritional information shown on each label is too much, not enough, or just right for your needs. (0=A lot less than I need, 5=just right for my needs, 10=A lot more than I need).

Respondents were then asked to select the one variant that was most meaningful to them. The results are shown in Chart 8, below.





As can be seen in Chart 8, 'Daily Intake %' was selected by significantly more respondents as being the most meaningful out of the three variants, while there was no difference between the 'Absolute Values' label (30%) and the 'Low/Med/High' label (31%).

Note that this result is in direct contrast to findings that will be presented in the next section, which showed that respondents preferred the "Low/Medium/High" scheme. The main difference between the labels presented in this section and the next is the amount of information contained within them – here the labels only have one nutrient (Kilojoules), while in the next section, the nutrient elements that were presented had five nutrients (each containing information on the amount of nutrient). Our hypothesis is that as the number of nutrients shown increases, respondents seek quicker and easier ways of interpreting all the information – and evidence presented in the next section suggests that the "Low/Medium/High" scheme is easier to understand, and is considered to be a more appropriate "amount" of information for consumers' needs.

3.5 **OPTIMISING NUTRIENT ELEMENTS (ALL NUTRIENTS)**

In the next section of the survey, respondents were shown complete nutrient elements, containing five nutrients. They were then asked to focus on different components of the label and provide feedback. The results are outlined in the following sections.

N4 Overall, which of these labels is most meaningful to you?

3.5.1 Recall of similar labels

Respondents were first shown an example of a full nutrient element with five nutrients and asked whether they had ever seen "a similar label". The results are shown in Chart 9, below.



Chart 9. Whether Participants Had Previously Seen A Label Similar to the Full Nutrient Label

N5 The image shown above is an example of a label containing additional information to the labels you saw in the last few questions. It is an example for illustration only. Have you ever seen a label similar to this on the food that you buy?

Three in five respondents (61%) claim to have seen a similar label before. Interestingly, only 45% of respondents claim to have seen the Daily Intake Guide (See Section 3.7).

For those who had seen the label before, open-ended answers were allowed on where they had previously seen the label. As shown within the Word Cloud contained within Chart 10, the main places where consumers claim they had seen this label was on cereal, packaged and pre-prepared foods, and breakfast items generally.



Chart 10. Where Respondents Had Seen Such a Label Previously

N6. Please provide a few details about where you have seen such a label (note: word cloud depicts the number of mentions of a word by the size of the word in the cloud)

3.5.2 "Per 100g" versus "Per Xg serve"

Consumers were then presented with two variants of the full nutrient element, with one variant denoting the serving information as "Per 100g" and the other showing "Per 175g serve".

Respondents were then asked to indicate which variant was most meaningful to them. The results are shown in Chart 11, below. Three in five respondents felt that "Per 100g" was the most meaningful way of expressing serving information. These findings support the findings and recommendations in the qualitative study.





N7 Which option would be more meaningful to you if it were on a nutritional label?

Participants commented on why they had chosen the 100g label. The Word Cloud at Chart 12 below provides detail on some of the general themes that came out from these open ended responses.



Chart 12. Word cloud of reasons Given by Respondents Who Preferred "Per 100g"

N8b. And why is "Per 100g" more meaningful to you?

The main justifications for why 'Per 100g' was chosen over the 'Per 175g serve' related to the former being "easier" for several reasons. 100g was deemed to generally be "easier", as well as easier to measure, easier to compare with different products and packaging, easier to understand, and easier calculate a serving size.

3.5.3 "Low/Medium/High" versus "Daily Intake %"

The next section of the survey compared the 'Low/Med/High' component with the 'Daily Intake %' component, both within the full nutrient element (containing all five nutrients).

Respondents were asked to indicate their level of understanding for the 'Low/Med/High' and the 'Daily Intake %' labels. As shown in Chart 13 below, levels of understanding are significantly higher for the "Low/Medium/High" component than for the "Daily Intake" component.





N10 For each of the labels above, please rate the extent to which you feel that you understand what the highlighted area is communicating. (0 = I don't understand at all, 10 = I understand completely)

Respondents were then asked whether the amount of nutritional information shown was too low, too high, or just right for their needs. In this question, the original nutrient element label showing just the absolute values for each nutrient was also included for comparison.

The chart below shows the results compared to the pre-exposure baseline.



Chart 14. Amount of Nutritional Information Displayed on Labels

C4. Please indicate whether the amount of nutritional information currently found on food packaging is too much, not enough, or just right for your needs? (0=A lot less than I need, 5=just right for my needs, 10=A lot more than I need).

N11. On the scale shown below, please indicate whether the amount and type of nutritional information shown on each label is too much, not enough, or just right for your needs. (0=A lot less than I need, 5=just right for my needs, 10=A lot more than I need)

The results in Chart 14 show that, from consumers' perspective, absolute values alone provide significantly less than the right amount of information. Daily Intake is considered to provide slightly more than "the right" amount of information, as is Low/Medium/High. From the results however, Low/Medium/High seems to be closest to "the right" amount of information as far as consumers are concerned.

Respondents were then asked to provide ratings for each of the three variants, this time in regards to the extent to which each nutrient element "label" would influence their food purchase choices. Results are shown in Chart 15, below, and compared to baseline (which represents existing nutritional information that can be found on food packaging).



Chart 15. Influence of Labels on Food Purchase Choice

C2. To what extent does the current nutritional information on food packaging influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

N12. If any of these labels were present on the front of packaged foods, to what extent would each **influence your food purchase choices**? (0=It has no influence, 10=It has a very strong influence)

The results in Chart 15 show that, although the Low/Medium/High component is the highest of the three variants tested (in terms of mean scores), in terms of expected influence on purchase choice behaviour, all three variants are significantly lower than the baseline (i.e. the current level of influence that existing nutritional information on food packaging has on consumers' food purchase choices). This is not surprising, given that much of the information in the nutrient element tested in this research can be found elsewhere on current packaging (indeed, considerably more information can be found in the back-of-pack nutritional information table). Our interpretation of these results is that, while the nutrient element adds to the star ratings when it comes to overall impact on consumer food choices, on its own, it is not enough to influence consumer food choices more than existing information on food packaging.

Finally, consumers were asked which of the labels was most meaningful to them. The results are shown in Chart 16, below. The results confirm other findings in this section, with the highest number of respondents selecting "Low/Medium/High" as the most meaningful component.

Chart 16. The Label Which is Most Meaningful to Consumers



N13. Overall, which of the variants above is most meaningful to you?

3.5.4 Types of foods for which star ratings and nutrient elements would be used

Respondents were asked to indicate the types of foods for which they would use the star ratings and nutrient elements.

- The foods for which the most number of consumers cited they would use either the star ratings element or nutrient element foods were breakfast cereals, snacks, pre-prepared convenience meals and biscuits, and Juices.
- The foods for which the least number of consumers would use either the star ratings element or nutrient element are typically fresh foods, such as meats and vegetables.

These results are shown in Charts 17 and 18 overleaf

Chart 17. Types of Foods For Which Consumers Would Use the Health Star Rating System



ST3b. If a star rating system was present on the front of food packaging, for what type of foods would you be likely to use the star ratings when making a food purchase choice? You can select as many or few as you like.





N14. If the label were present on the front of food packaging, what <u>type of foods</u> would you be likely to use the label for when making a food purchase choice? You can select as many or few as you like from the list below.

3.5.5 Types of nutrients to include on a FoPL label

Respondents were asked to indicate their optimal number of nutrients to be included in the nutrient element of a FoPL label. The results, shown in Chart 19 below, suggest that five nutrients are the optimal number to include (based on consumers' own claims).



Chart 19. Claimed Optimal Number of Nutrients to Include on the Label (including Kilojoules)

M2a. From the list below, please select the nutritional information that is most important to you personally and that you would like to see on a front-of-pack nutritional label.

In the next section of the questionnaire, respondents completed a maximum difference scaling (MaxDiff) task, which is a variant of conjoint. The task involved showing all potential nutrients in groups of five, and for each group, respondents had to indicate the most important nutrient in the group "for your needs", and the least important. This was repeated on ten different screens, with each screen containing a different combination of nutrients within the group displayed. From the data, utilities were calculated for each nutrient tested, which allowed us to model the relative importance of each nutrient



Chart 20. Relative Importance of Different Nutrients to Consumers' (Claimed) Needs

M1a-k. Please select the nutritional component that is most important for your needs to include on a front-of-pack label, and also select the component which you think is least important for your needs

Note that interpretation of MaxDiff output involves comparing of the percentage "scores" for each nutrient. The percentages not only indicate less or greater importance, but also the relative "size" of a difference – in other words, a nutrient with a percentage score of "20%" can be concluded to be twice as important as a nutrient with a score of "10%".

Hence, from Chart 20:

- The first thing to note is that the star rating system is, on average, the most important "nutrient" to be included on a front-of-pack label, suggesting that it is the single component, or piece of information, with the greatest value.
- The next most important nutrient was "Total Sugar", which was considered significantly more important than "Sugars", further down the list. This suggests that consumers find more meaning and value in "Total Sugar".
- Interestingly, both "Total fat" and "Saturated fat" are in the top five components in the list, suggesting that consumers see high value in both of these variants (indeed, the current Daily Intake Guide contains both).
- Kilojoules is on par with Saturated Fat in terms of overall importance. Respondents also tended to prefer two positive nutrients, over just one.

Further analysis was then conducted to determine whether natural 'segments' of consumers exist when it comes to favouring specific types of nutrients. The same data as shown in Chart 20 were analysed using latent class analysis, an analytical technique that determines natural groupings based on similar patterns of responses across a range of questions. The analysis revealed five key segments which, for ease of reference, we have called, Power Positives, Star Gazers, Medical Literates, Sweet Conscious, and Kilojoule Counters.

Table 2 below shows the five segments and their relative importance scores for each nutrient.

	Total sample	Power Positives	Star Gazers	Medical Literates	Sweet Conscious	Kilojoule Counters
Star rating system	16%	15%	48%	2%	2%	3%
Total sugar	12%	5%	8%	8%	38%	9%
Total fat	10%	6%	9%	18%	10%	11%
Kilojoules	9%	7%	5%	1%	1%	37%
Saturated fat	9%	5%	7%	20%	6%	7%
Trans fat	8%	3%	6%	24%	3%	4%
2 positive nutrients	8%	23%	3%	2%	1%	1%
Sugars	6%	4%	4%	5%	18%	5%
Sodium	5%	4%	3%	12%	5%	3%
Added sugar	4%	3%	2%	4%	11%	3%
Energy	4%	6%	2%	1%	1%	11%
1 positive nutrient	4%	10%	1%	1%	1%	1%
Protein	3%	6%	1%	1%	1%	2%
Carbohydrates	2%	4%	1%	1%	2%	3%
Total	100%	100%	100%	100%	100%	100%

Table 2. Nutrient Segmentation

As can be seen from the table above, each of the five segments has a distinct emphasis in the nutrients they consider most important:

- Power Positives: tend to be focussed on positive nutrients and star ratings, and at 27% of the total sample, they represent the largest segment (see Chart 21 below).
- **Star Gazers**: strongly over-index on the importance placed on the star system, representing 23% of the total sample
- Medical Literates: have a strong focus on fats (particularly unhealthy "trans" and "saturated" fats) and sodium. They represent a fifth of all consumers.
- Sweet Conscious: strongly over-index on the importance of sugars, particularly "Total Sugar". They represent 16% of the sample.
- Kilojoule Counters: place most importance in understanding kilojoules and energy of foods, and represent the smallest segment, at 14% of the sample.

The chart below shows the relative sizes of each of the five segments.

Chart 21. Sizes of segments as proportion of total sample



M1a-k. Please select the nutritional component that is most important for your needs to include on a front-of-pack label, and also select the component which you think is least important for your needs. Chart based on latent class analysis of Max Diff Data.

Base: total sample (n=1,087)

In a separate and subsequent exercise, respondents were asked to select their most important positive nutrients. The results are shown in Chart 22, below.



Chart 22. Most Important Positive Nutrients to Include on the Label

M2. From the list below, please select the nutritional information that is most important to you personally and that you would like to see on a front-of-pack nutritional label

From this graph, the most important element is Fibre, with 60% of respondents selecting this option. Calcium was also quite high at 48%. On the other hand, both Vitamin D and Vitamin C were the lowest, with 29% and 27% respectively.

Respondents were then asked to select the most important nutrients when considering five specific food groups, namely:

- Breakfast cereals, muesli bars and snacks (e.g. potato chips/crisps)
- Pre-prepared convenience meals (e.g. pizzas)
- Meats, chicken and fish
- Dairy products
- Juices and drinks

The results are shown in Charts 23-27 below, and discussed subsequently.



Chart 23. Nutrients to Include for Breakfast cereals, Muesli Bars and Snacks

M2b In the grid below, please select the most important nutritional information that you would like to see for each type of food shown. You can select a maximum of five nutrients for each food type.



Chart 24. Nutrients to Include for Pre-Prepared/Convenience Meals

M2b In the grid below, please select the most important nutritional information that you would like to see for each type of food shown. You can select a maximum of <u>five</u> nutrients for each food type.



Chart 25. Nutrients to Include for Meats, Chicken and Fish

M2b In the grid below, please select the most important nutritional information that you would like to see for each type of food shown. You can select a maximum of <u>five</u> nutrients for each food type.



Chart 26. Nutrients to Include for Dairy Products

M2b In the grid below, please select the most important nutritional information that you would like to see for each type of food shown. You can select a maximum of five nutrients for each food type.



Chart 27. Nutrients to Include for Juices and Drinks

M2b In the grid below, please select the most important nutritional information that you would like to see for each type of food shown. You can select a maximum of five nutrients for each food type.

One of the key findings from this exercise involved the extent to which the (perceived) most important elements differed by food type. Although some of the elements are consistently important, there are marked differences for others. The key consistencies and differences in the results are summarised as follows:

- The Star Rating System was consistently placed in the top three for all five of the categories of food types
- Kilojoules is consistently in the upper range of importance across all foods
- Certain positive nutrients appear at the top of the lists for different food groups Protein and Iron for meats, chicken & fish; Calcium for dairy, and vitamin C for juices & drinks
- Sodium is relatively high on the list, except in dairy and juices & drinks
- Total Fat is placed amongst the highest within all categories, except juices & drinks (where it is
 presumably considered to be less relevant, given the low fat content of this category)
- The importance of Total Sugar differs considerably while it is close to the top of the list for breakfast cereals etc. and juices and drinks, it has "middle-range" importance within preprepared/convenience meals, and very low importance in meats chicken and fish

As a separate exercise, respondents rated the importance of several nutritional components on *overall health*. This exercise was designed to distinguish between consumers' preferences for nutrients they would like to see on a FoPL label and their understanding of what nutrients are actually important for their overall health. Whereas preferences can be influenced by specific goals (e.g. weight loss, weight

gain, vitamin supplementation etc.), ratings of nutrients based on their overall importance to health were expected to be somewhat different. Indeed, Chart 28 shows that when respondents rate nutrients based on perceptions of their importance to overall health, the top-five components are a combination of positive and negative nutrients which looks slightly different to previous combinations.





M3. In this question, we'd like to understand how important you think is each of the nutritional components listed below to an individual's health. Using the scale provided, please rate the **importance of each nutritional component on overall health**.(1=completely unimportant, 5 = extremely important).

While Total Fat and Total Sugar have appeared in previous lists shown in this report, Fibre, Calcium and Protein feature in the top group of nutrients.

3.6 EVALUATING COMPLETE FOPL LABELS

3.6.1 Potential influence of a complete FoPL label on food purchase choices

The qualitative phase of the study design recommended a potential overall design of the FoPL, which was fed into the last section of the survey. The objective of this section was to determine consumer reaction to a complete FoPL design, potential impacts of the design on purchase choices, and how the design could be further fine-tuned.

Respondents were asked to rate the potential influence of the overall FoPL design on their food choices. The results are shown in Chart 29, and compared with similar ratings for the star element alone ("Health Star Rating") and the nutrient element alone (specifically, the best performing variant of the nutrient element, which included the "Low/Medium/High" component).





C2. To what extent does the current nutritional information on food packaging influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence).

O1. The label above is an example of a complete label containing a star rating system and nutritional information. If this label were present on food packs, to what extent would this label influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

As can be seen in Chart 29, mean ratings for the new Overall Design are significantly higher than the baseline measure, suggesting that consumers feel that the proposed FoPL design will have a significant impact on their food purchase choices. It is also worth noting that the star rating element is significantly higher than the nutrient element when it comes to consumers' self-ratings of influence on food purchase choice – this suggests that the star ratings are having a greater impact than the nutrient elements when it comes to influencing consumer behaviour. That said, the mean rating of the Overall FoPL label (i.e. combining both elements) is higher than either the star rating or the nutrient element, suggesting that combining the elements results in the highest overall impact on consumers.

Although it is difficult to translate the mean score results in Chart 29 directly to actual volumes of consumers, we can gain some understanding of the impact of the new FoPL label by looking at changes in numbers of respondents within "top boxes" in the rating scale. If we assume that a score of 8-10 equates to a "strong" influence, then 36% of consumers interviewed would be classified as being "strongly influenced" by existing nutritional information on food packs (this is based on the "Baseline" column in Chart 29). Compare this with 48% of consumers who rated 8-10 for the new FoPL label – this is a growth of 33% in the number of consumers who would be strongly influenced by the new FoPL label.

Respondents were then asked to rate their level of understanding of the Overall FoPL label. The results are shown in Table 3, below.

Characteristic	Understanding (Mean rating)	Influence (Mean rating)
Total Sample	6.9	6.8
Gender Male Female	6.5* 7.1	6.5** 7.1**
Age 18-24 years 25-29 years 30-34 years 35-44 years 45-54 years 55-64 years 65-75 years 75+ years	7.0 6.9 6.7 7.0 6.9 6.7 6.7 7.0	7.0 6.9 6.5 6.8 7.0 6.9 6.8 6.6
State/Territory of residence NSW Victoria Queensland Western Australia South Australia Tasmania ACT Northern Territory	6.6** 6.8 7.2 7.2 7.1 6.3 7.4 7.4	6.5** 7.0 7.0 7.2 6.9 5.9** 6.3** 8.1
Area of residence Capital city Regional centre Country town Rural or remote locality	6.9 7.0 6.6 6.9	6.9 6.9 6.6 6.8
Highest level educational attainment Year 9 or below Year 10 or 11 Year 12 or high school equivalent TAFE certificate or diploma Bachelors degree Postgraduate qualification Don't know/prefer not to say	6.4 6.8 6.9 6.9 6.9 7.0 5.2**	6.6 6.7 7.0 6.8 6.9 7.1 4.8**
Current situation Working full-time Working part-time Home duties Retired Student Not in the workforce Other	6.7 7.1 7.0 6.6** 6.8 7.0 7.6	6.8 7.2** 7.1 6.7 6.5 6.6 6.5

 Table 3.
 Understanding and Influence of overall proposed FoPL design (by demographic)

Characteristic	Understanding (Mean rating)	Influence (Mean rating)
Total Sample	6.9	6.8
Household Description Young single or couple (no children) Young family (oldest child under 6 years) Middle family (oldest child 6-15 years) Mature family (oldest child over 15 years) Mature single or couple Other (Please Specify) Don't know/prefer not to say	6.8 6.9 7.2 6.7 6.9 6.9 6.2	6.7 7.0 7.0 6.8 6.9 6.6 6.2
Origin Aboriginal or Torres Strait Islander Yes No Don't know/prefer not to say	6.0 6.9 5.6**	6.3 6.9 6.0
Language Other Than English At Home Yes No Don't know/prefer not to say	7.1 6.8 7.0	7.3** 6.8 6.3
Annual Personal Income Up to \$20,000 \$20,001 to \$35,000 \$35,001 to \$50,000 \$50,001 to \$75,000 \$75,001 to \$100,000 \$100,001 to \$150,000 \$150,001 to \$200,000 More than \$200,000 Don't know/prefer not to say	7.0 6.8 7.0 7.0 7.0 6.1* 5.8* 8.4 6.5**	6.8 6.9 7.3** 6.9 6.7 6.6 7.2 8.6 6.6
Annual Household Income Up to \$20,000 \$20,001 to \$35,000 \$35,001 to \$50,000 \$50,001 to \$75,000 \$75,001 to \$100,000 \$100,001 to \$150,000 \$150,001 to \$200,000 More than \$200,000 Don't know/ prefer not to say	7.0 6.8 6.9 6.9 6.9 7.1 7.1 6.5 6.6	6.5 6.7 7.1 6.9 6.9 7.1 7.5 6.6 6.6

Key demographic questions: S1-S3, D1-D12.

**Significant at 95%

* Significant at 99%

The table shows that the main significant difference in terms of understanding of the label and its perceived potential influence on food purchase behaviour is between males and females, where females had significantly higher means ratings for understanding and influence than males. Our hypothesis as to the drivers of this difference are that females tend to be the more likely main grocery buyers and shoppers, meaning that they are more likely to come in contact with nutritional information on food packs, including existing nutritional labels (such as the Daily Intake Guide).

The other noteworthy differences are amongst:

- 1. Retirees where this group reports slightly lower ratings than average for understanding.
- 2. NSW respondents, who rated significantly lower than average on both understanding and influence measures

3.6.2 What would consumers change about the proposed FoPL label?

Consumers were given the chance to comment on any changes they would make to the label. Only a third of participants claimed there was something they would change about the design.

The results are shown in the table below.

Table 4.	Comments From	Participants	Who	Would	Change	Something	About the	Desian
					· · · · · · · · · · · · · · · · · · ·			

Understanding of Low/Medium/High	Frequency %
DI%/DI instead of/as well as high, medium, low - DI more accurate/easier to calculate	27%
Get rid of 2.5 rating - unnecessary/can see there are 2.5 stars	7%
Nothing/fine as it is	7%
Explain what high, medium, low means/don't understand high, medium, low	6%
More colourful/add some colour	4%
Change per 100g to per serve/show rating on per serve basis	4%
Simplify/too much information/have less information/too much writing	4%
Get rid of low, medium, high/don't like low, medium, high/change low, medium, high/low, mediu	3%
Colour code low, medium and high	3%
Include calories/give calorie equivalent of kilojoules	3%
Include list of additives/preservatives/colours/flavours	3%
Get rid of stars/get rid of star rating	3%
Include protein	3%
Include total fat	3%
Include carbohydrates	2%
Include trans fats	2%
Don't know/no answer	2%
Change high, medium, low to percentage	2%
Explain star rating/how is Health Star Rating calculated	2%
Include vitamin/mineral/calcium/iron content	2%
Show serving size/indicate serving size/amount per serve	1%
Explain kilojoule rating/kilojoule rating meaningless/do not rate kilojoules just include figure	1%
Who devised rating/which Government body/some form of accreditation	1%
Include energy/energy instead of kilojoules	1%
Get rid of it altogether/don't have it at all	1%
Get rid of Health Star Rating	1%
Include GI rating	1%
Include gluten content	1% Hall Partners

Understanding of Low/Medium/High	Frequency %
Make it clearer/easier to understand	1%
Indicate whether level is healthy or not/which ratings are healthy/highlight unhealthy ratings	1%
Include daily intake information/daily intake of each ingredient	1%
Explain what person rating is based on - male/female/age etc	1%
Include Heart Foundation tick	1%
Smaller star rating/star rating less prominent	1%
Just have star rating	1%
Include full list of ingredients/more ingredients	1%
Other answers	12%

O4. Is there anything that you would change in the label to make it more useful in helping you make food purchase choices? Sample size n = 360

The most frequent suggestion for improving the FoPL label was to replace the "Low/Medium/High" component with DI (or to have both), with around 27% of those who provided a suggested improvement (representing around 9% of the total sample) making this suggestion.

Note from earlier findings presented in the report that there was "large minority" of respondents who preferred DI over "Low/Medium/High", and given that at this point in the survey, the FoPL contained only "Low/Medium/High", it should not be surprising that a number of respondents noted their preference for DI. Apart from this, there was a "long tail" of suggestions, with some of the more noteworthy suggestions including:

- Colour coding Low/Medium/High
- Include accreditation (who devised/regulates the label)
- Just have the star rating

Respondents were then shown four different versions of the complete FoPL label and asked to rate how useful each variant would be to them, with the four variants emphasising different components of the label.



Chart 30. Participant Preference for Overall Design

O5. Below you can see four different versions of the label. Which version would you find most useful?

Although all variants were chosen to some extent, the "Enlarged kilojoules" variant had significantly more responses than the next highest. Although respondents were not asked explicitly in the survey to explain their choices, it is likely that this variant was chosen given the overall importance of kilojoules relative to other nutrients (and the fact that the star ratings element is already quite prominent).

Respondents were then shown four different label variants – a complete label, just the star rating element, just the nutrient element, and just the kilojoule component, (note that in the survey, the kilojoule component was shown as the same size as in the nutritional element component for consistency).

Respondents were asked to select the one variant that they felt best reflected "the right amount of information for your needs". The rationale for this question was to understand whether a complete FoPL label represented more information than consumers needed, and if a single element/component of the complete label might be seen as a more appropriate amount of information. The results are shown in Chart 31, below.



Chart 31. Label with the Right Amount of Information

O6. If you could pick only one of the above labels to be put on the front of all packaged foods, which do you think represents the right amount of information for your needs?

A large majority of consumers (70%) felt that the complete FoPL label represented the right amount of information for their needs, suggesting a desire to have all elements on front-of-pack, rather than specific elements/components only.

3.7 PERCEIVED VALUE OF THE PROPOSED FOPL

3.7.1 Overall attitudes towards a FoPL concept

At the end of the survey, having experienced some of the proposed FoPL designs (as well as an existing alternative in the Daily Intake Guide), respondents were asked whether they felt that a "nutritional labelling system, such as the ones you have seen in this survey" are a good or bad idea. As shown in Chart 32 below, overwhelmingly, respondents felt that a FoPL system was a good idea.





D1. Which of the following statements best describes your attitudes towards having a nutritional labelling system, such as the ones you've seen in this survey, on the front of all packaged foods?

Respondents were also asked to estimate the relative importance of a FoPL system, compared to four other purchase decision factors when buying food: taste, price, brand and convenience. The estimate was to be provided as part of a points allocation task, in which respondents had 100 points that had to be allocated across the five purchase decision factors (in which the fifth factor is a hypothetical FoPL). The more points allocated to a particular factor, the more important is that factor, and vice versa. The results can be seen in Chart 33, below.



Chart 33. Other Factors that May Influence Consumer Choice

O8. Below is a list of different factors that may influence the choice of foods that you purchase. **Please distribute 100 points across the different factors** according to how important or unimportant is each factor in your food purchase choices.

As can be seen in Chart 33, of the 100 points that represent the purchase decision, on average, taste and price received the most points (and thus, the most "importance" in the purchase decision). However, the FoPL system received a very similar number of points, and considerably more than either the food brand or convenience. Although it is difficult to ascertain the exact relative value of a concept with a direct question such as this, the results suggest that consumers consciously attribute considerable value to a FoPL concept.

The label's value was further explored by examining the relative values of the two key elements within the label, the star rating element and the nutrient element. This was done using the same points

allocation format, where respondents were asked to allocate 100 points across the two elements, according to "how useful each element would be in helping you make food purchase choices".

The results can be seen in Chart 34 below. Interestingly, the nutrient element received a significantly higher number of points than the star rating element. However, note that the nutrient element contains considerably more "bits" of information than the star rating element, which essentially conveys one piece of information. Considered in this way, the star element would "over-index" on importance compared to any other piece of information in the proposed FoPL label.



Chart 34. Relative Importance of Elements in Helping Make a Food Purchase Choice

O7. Please distribute 100 points across the two elements according to how useful each element would **be** in helping you make food purchase choices. The more useful the element, the more points you should allocate to it.

3.7.2 Comparing the proposed FoPL system to the Daily Intake Guide (DIG)

One of the ways in which the value of the proposed FoPL system could be determined is by comparison to existing systems. To this end, the proposed FoPL was compared to the existing Daily Intake Guide (DIG) in its perceived usefulness, level of understanding, and overall influence on food purchase choices. An example of the DIG label is shown below (this image was also used in the survey).



Respondents were first shown the DIG label and asked whether they had seen it previously. As reported early (and in Chart 35 below), just under half the sample (45%) claim to remember seeing it in the past.



Chart 35. Whether Participants Had Previously Seen the DIG Label

O9. Do you remember seeing this type of label on any foods you've bought in the past?

Respondents were then asked to rate the DIG guide based on the extent to which they felt it would influence their food purchase decision. The results are shown in Chart 36, below.



Chart 36. Influence of Baseline, Current DIG Label and New Overall Labels Compared

C2. To what extent does the current nutritional information on food packaging influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

O10. This is an existing label that is present on some types of food. To what extent DOES/WOULD this label influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

O1. The label above is an example of a complete label containing a star rating system and nutritional information. If this label were present on food packs, to what extent would this label influence your food purchase choices? (0=It has no influence, 10=It has a very strong influence)

** New overall design significantly higher than baseline measure

** Those who have not seen the current DIG labels are significantly higher for both the DIG label and the FoPL design.

As can be seen in Chart 36, mean ratings for the new overall design were significantly higher than baseline (i.e. current information available on food packs). Additionally, mean ratings of the influence of the FoPL label were significantly higher than ratings for the DIG label, even amongst those who recognised the DIG label (and were therefore more likely to have used it in the past).

The extent to which respondents understand the DIG and proposed FoPL labels was also explored. As can be seen in Chart 37, understanding of the FoPL system was significantly better than the DIG amongst those who had previously not seen the DIG label, and was the same amongst those who had previously seen the DIG label (which is a positive result for FoPL, given that it contains more

information and components than the current DIG label and therefore more potential for misunderstanding).





Chart 37. Level of Understanding of Current DIG Label Compared to the New Overall Design

O2. And to what extent do you feel that you understand everything the label is communicating. (0 = I don't understand at all, 10 = I understand completely) O11. And to what extent do you feel that you understand everything the label is communicating.(0 = I don't understand at all, 10 = I understand completely) ** Those who have seen the current DIG label had significantly higher levels of understanding for the DIG label and FoPL design than those who had not.

Finally, consumers rated both labels in terms of their overall usefulness "in helping you make food purchase choices", with results shown in Chart 38, below. In line with other comparisons, FoPL was rated significantly more useful than DIG amongst both those who had seen DIG previously and those who had not. In other words, even amongst those who recognised the DIG label (and hence some of whom are likely to have used it previously and formed positive associations with it), the proposed FoPL label was still considered to be significantly more useful.



Chart 38. Usefulness of the Current DIG Compared to the New Overall Design

O3. And overall, how useful IS/WOULD YOU FIND such a label in helping you make food purchase choices? (0 = Not useful at all, 10 = extremely useful) O12. And overall, how useful IS/WOULD YOU FIND such a label in helping you make food purchase choices? (0 = Not useful at all, 10 = extremely useful) ** Those who have seen the current DIG label claimed significantly higher levels of usefulness for both the DIG label and the new FoPL label than those who had not. A potential explanation for the more positive ratings of the FoPL label compared to DIG is due to a 'primacy effect' – i.e. the fact that respondents had seen it first within the questionnaire, before they were exposed to the DIG label, and therefore were influenced by this when providing ratings. However, recall that almost half (45%) of the sample recalled seeing the DIG label before doing the survey, suggesting that for this group, the primacy effect is more likely to be associated with the DIG label, rather than FoPL, and thus would have resulted in more favourable ratings for DIG. On the contrary, Charts 36 and 38 show that amongst those who had recalled seeing DIG previously, ratings were in fact more favourable towards FoPL. This pattern of results suggests that a primacy effect is not responsible for the more favourable ratings of the FoPL label.

3. CONCLUSIONS AND RECOMMENDATIONS FOR OPTIMAL FOPL DESIGN

Overall design recommendations from the qualitative research that are supported here:

- A box to enclose all elements of design
- The grey backed design option tested (Tank design)
- Be presented as a stacked display with star rating element sitting above nutrient elements
- Use of the 'Health Star Rating' name
- Incorporate the slider in the star design element
- Express all values as per 100 grams
- Include the term "kilojoules" rather than "energy"

Additional design recommendations assuming a label with "fixed" negative nutrients (i.e. the same nutrients across all food groups):

- <u>Use "Low/Medium/High" rather than "DI %"</u>: consumers find the former easier to understand and quicker to read
- Consider including six nutrients in the label (including Kilojoules): Although respondents rated "5 nutrients" as the optimum number, there is evidence that six nutrients may be optimal in order to include all of the key information that consumers want to see (in particular, an emerging need to include both "Total Fats" and "Saturated Fats", as discussed below). Note also that the current DIG label often includes both Total Fats and Saturated Fats. If FoPL will replace DIG, inclusion of six nutrients may ensure that there is no perceived detriment in the amount and usefulness of information on the front-of-pack
- Include "Total Sugar", rather than "Sugars": Although these terms are intended to have the same meaning, the former is more easily understood by consumers and was consistently attributed more value.
- <u>Include "Total Fat" and "Saturated Fat"</u>: both of these nutrients were considered amongst the most important to include (indeed, "Total Fat" was consistently seen as more important than "Saturated Fat").
- Include "Sodium": At an overall level (i.e. when discussing a label without reference to specific food group), Sodium was not considered one of the more important nutrients (in fact, it was 9th out of 14 nutrients in the list in importance). However, Sodium was considered important when referring to certain food groups (e.g. pre-prepared/convenience meals). Overall, there was a surprising lack of importance attributed to Sodium. A potential reason for this is that a portion of consumers may not be making the connection between "Sodium" and "salt", the latter of which has more negative health connotations (note that this is a hypothesis only and would need to be supported by further research).
- Include one positive nutrient, adapted by food group: Positive nutrients were important to consumers, but our results suggest that consumer needs for positive nutrient information differed

markedly across food types. While fibre was "overall" (i.e. without reference to a food group) the most important positive nutrient, the picture changed when talking about meats/chicken/fish (where protein was by far the most important), Dairy (calcium), and juices & drinks (Vitamin C). Interestingly, no positive nutrients were considered important when referring to pre-prepared/convenience meals. Further research may be needed to go into all food groups in detail to determine which positive nutrients are most important for each food type (from a consumer perspective).