

An investigation into the impact of Nutrition Content claims on packaging in relation to consumer purchase intention, nutrition attitude and health benefits.

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1. EXECUTIVE SUMMARY

- FSANZ commissioned two studies to further the understanding of the influence of nutrition content claims: one using the real-life shopping centre environment and the second utilising an experimental design in measuring consumers purchase intentions and product evaluations, which was undertaken by Roy Morgan Research.
- The specific research objectives of this investigation were to:
 - investigate the impact of nutrition content claims on consumers' product evaluations and purchase intentions of products of lower nutritional value.
 - determine which factors (e.g. personal, socio-demographic, cognitive, behavioural) are relevant in these evaluations.
- The research methodology employed for the latter study was:
 - Adult respondents from Australia and New Zealand were recruited from a sample from Roy Morgan Research Single Source, via telephone interview
 - Mock packages of breakfast cereal and sweet biscuits boxes were mailed out to respondents, in the form of 3-dimensional product packages approximating real-world products. For each product (i.e. breakfast cereal and sweet biscuits), there were five individual stimuli – four with nutrition content claims and one with no nutrition content claims. Respondents randomly received one breakfast cereal stimuli and one sweet biscuit stimuli
 - Participants were exposed to the following claim conditions:
 - Breakfast cereal: 97% Fat Free, Increased Fibre, Good Source of Fibre, Reduced Sugar, and no nutrition content claim
 - Sweet biscuits: Low in Saturated Fat, Reduced Fat, Good Source of Fibre, No Added Sugar, and no nutrition content claim.
 - A telephone survey was conducted with all respondents to obtain responses to the stimuli and other survey items.
 - While the mock packages approximate real-world products, the situation in which respondents evaluated these products could not readily approximate the real-world environment of a supermarket or grocery store.
- A total of 1,060 respondents completed the survey, proportionally drawn from areas in both Australia and New Zealand.
- Five measures were used to determine if there was a significant effect as a result of the presence of a nutrition content claim. These were:
 - Intention to purchase the product
 - Nutrition attitude towards the product in the context of food in general
 - Nutrition attitude towards the product in the context of the category of the product (e.g. the breakfast cereal mock in the context of other breakfast cereals)
 - Number of types of people perceived to benefit from consuming the product

- Number of types of health benefits perceived to accrue from consuming the product.
- While there was no significant influence of exposure to nutrition content claim on overall purchase intention, when product type was taken into consideration respondents had a greater purchase intention for breakfast cereal that did **not** have nutrition content claims.
- The presence or absence of nutrition content claims did not have a significant influence on nutrition attitudes (general and specific), perceived number of people who would benefit from eating the product, and perceived number of types of health benefits from eating the product.
- Nutrition content claim did not contribute significantly to the prediction of purchase intention or product evaluations, with level of trust in nutritional information panels, income, education, and other socio-demographic, cognitive and behavioural factors revealed to be more important.
- Respondents in general reported the use of nutrition information panels, general knowledge and the ingredients of the product when making their evaluations, with slightly more than half indicating that nutrition content claims (including 59% of those exposed to claims, and 40% of those not exposed to claims) were utilised in their decision making process.
- Furthermore, the type of nutrition content claim (e.g. No Added Sugar, 97% Fat Free, Good Source of Fibre) had no influence on consumer purchase intention, or product evaluations in terms of nutrition attitudes. There were some impacts of the type of nutrition content claim in regard to perceptions of types of people who would benefit, and perceptions of the types of health benefits from eating the product.
 - For example, respondents exposed to the breakfast cereal stimulus with the 97% Fat Free claim were more likely than other respondents to perceive the product to benefit people trying to lose weight, and people with particular health problems. Those exposed to the breakfast cereal stimulus with the Reduced Sugar claim were more likely than other respondents to perceive the product to benefit people with particular health problems and to have the health benefit of reducing the risk of diabetes.
 - Respondents exposed to the sweet biscuit stimulus with the Reduced Fat claim were more likely to perceive the product to benefit women and people trying to lose weight. Those exposed to the No Added Sugar claim on the biscuit stimulus were more likely to perceive the product to benefit women, pregnant women, people with particular health problems, and to reduce the risk of diabetes. Those exposed to the claim Good Source of Fibre on the biscuit stimulus were more likely than other respondents to perceive the product to benefit older people.

- This study utilised an experimental design, replicating real-life materials to determine the potential influence of nutrition content claims in purchase intention and product evaluations. There was little impact of exposure to the nutrition content claims in terms of evaluations or purchase intentions, and multivariate analyses revealed that other factors (i.e. socio-demographic, cognitive and/or behavioural) played more important roles in the decision making process of respondents. Consumers appear to focus on other information (e.g. Nutritional Information Panels) when making their judgements on food products.

2. INTRODUCTION

2.1 Background

Food Standards Australia New Zealand (FSANZ) is a statutory authority operating under the *Food Standards Australia New Zealand Act 1991*. FSANZ's aim is to protect the health and safety of people in Australia and New Zealand through the development of effective food standards. FSANZ does this collaboratively with all Australian governments and the government of New Zealand and with industry, consumer and public health stakeholders.

FSANZ is responsible for developing, varying and reviewing food standards that regulate the labelling and composition of food, and for developing codes of conduct and guidelines with industry for food sold in Australia and New Zealand. In Australia, FSANZ also develops food standards for food safety, maximum residue limits and primary production and processing.

FSANZ issued a Draft Assessment Report (DAR) in November 2005 setting out a proposed approach to the regulation of Nutrition, Health and Related Claims together with the proposed new Standard 1.2.7 – Nutrition, Health and Related Claims. The proposed draft Standard sets out the criteria and conditions for making nutrition content claims, health claims and related claims and included composition of foods able to make claims, wording conditions and exemptions from the general approach, and incorporated substantiation requirements¹. In the DAR, FSANZ proposed that generic disqualifying criteria (now called Nutrient Profiling Scoring Criteria (NPSC)) would not be applied to nutrition content claims. However, specific disqualifying criteria in relation to certain nutrients could be applied where considered necessary. Subsequently, a Preliminary Final Assessment report (PFAR) was released for comment in April 2007².

Comments received from submitters at draft and preliminary final assessment highlighted concerns about consumers' use and comprehension of nutrition content claims. One area of concern is the influence of nutrition content claims when they are on products of lower nutritional quality. Breakfast cereals and sweet biscuit products were chosen to be the

¹ FSANZ 2005, *Draft Assessment Report Proposal P293 Nutrition, Health and Related Claims 7 December 2005*, FSANZ, Canberra. (Available at: [Food Standards Australia New Zealand: Proposal P293 - Nutrition, Health and Related Claims](#)).

² FSANZ 2007, *Preliminary Final Assessment Report Proposal P293 Nutrition, Health and Related Claims 4 April 2007*, FSANZ Canberra (Available at: [Food Standards Australia New Zealand: Proposal P293 - Nutrition, Health and Related Claims](#)).

focus for this research due to the prominence of these products in the market place, and the presence of nutrition content claims on these products, as revealed in the most recent Food Label Monitoring Survey³.

Previous research on the use of nutrition labels has reported high levels of label use by consumers. For example research commissioned by FSANZ has suggested that approximately two-thirds of respondents use some form of nutrition label information, even if only occasionally⁴. However studies of consumers in real-world shopping environments suggest the use of nutrition label information may be much lower⁵. Research commissioned by FSANZ has also shown some degree of difficulty among some consumers in accurately interpreting nutrition content claims⁶. There has been little experimental research in Australia and New Zealand exploring the effect of such claims on the purchase intentions and product evaluations of consumers, using real-world product examples.

FSANZ has commissioned two research projects exploring the influence of nutrition content claims on consumers' evaluations and purchase decisions. One study explored consumer use of nutrition content claims in shopping environments, and focussed on the use of nutrition content claims by consumers in real-world shopping environments to better understand if such claims were being used, how they were being used and how important they were in purchase decisions of consumers. The second study utilised an experimental design to measure the impact of nutrition content claims on consumers' evaluations and purchase intentions. This study focussed on the use of nutrition content claims⁷ on real-world mock up products by consumers to better understand if such claims were being used, and how important they were in purchase decisions of consumers. Roy Morgan Research was commissioned to undertake the second study. This document is the report of the results of this second study.

³ AgriQuality Australia Pty Ltd 2007, *Report on the Assessment of 2005 Labels for Nutrition, Health and Related Claims: Ongoing Food Label Monitoring Survey in Australia and New Zealand. Report to Food Standards Australia New Zealand. (Evaluation Report Series No 16)*, FSANZ, Canberra. (Available at: [Food Standards Australia New Zealand: Report on the Assessment of 2005 Labels for Nutrition, Health and Related Claims \(April 2007\)](#)).

⁴ NFO Donovan Research 2003, *Food labelling issues: Quantitative research with consumers. Report to Food Standards Australia New Zealand. (Evaluation Report Series No 4)*, FSANZ, Canberra. (Available at: [Food Standards Australia New Zealand: Quantitative research with consumers. \(June, 2003\)](#))

⁵ European Hear Network 2003. *A systematic review of the research on consumer understanding of nutrition labelling*, EHN, Brussels.

⁶ NFO Donovan Research 2003, *A qualitative consumer study related to nutrition content claims on food labels Report to Food Standards Australia New Zealand*, FSANZ, Canberra. (Available at: [Food Standards Australia New Zealand: Consumer study related to nutrition content claims \(July 2003\)](#)).

⁷ The claims for this research were on products that do not meet the Nutrient Profiling Scoring Criteria.

2.2 Research Objectives

The specific research objectives of this study were to:

- investigate the impact of nutrition content claims on consumers' product evaluations and purchase intentions for a breakfast cereal and a sweet biscuit product (which did not meet the NPSC)
- determine which factors (e.g. personal, socio-demographic, cognitive, behavioural) are relevant in the consumer decision-making process

An experimental study was designed to test a series of hypotheses:

1. A product with a nutrition content claim will yield higher consumer purchase intentions compared with a product without a claim.
2. A product with a nutrition content claim will yield higher consumer perceptions of nutritional quality (compared with other food types), compared with a product without a claim.
3. A product with a nutrition content claim will yield higher consumer perceptions of nutritional quality (compared with other breakfast cereals/sweet biscuits), compared with a product without a claim.
4. A product with a nutrition content claim will cause consumers to perceive a greater number of people will benefit from eating the product, compared with a product without a claim.
5. A product with a nutrition content claim will cause consumers to attribute to it a greater number of perceived health benefits, compared with a product without a claim.
6. The five specific claim conditions do not have different effects on consumers' purchase intentions or product evaluations.

3. METHODOLOGY

3.1 Study design

This research project utilised a multi-phasal approach, which included:

- Recruitment of respondents who meet the selection criteria, using sample from Roy Morgan Research Single Source, via a telephone survey,
- Mail out of two stimuli, in the form of 3-dimensional mock product packages that approximate real world products, including one set of stimuli for breakfast cereal and one for sweet biscuits,
- Telephone survey, to obtain the responses to the stimuli and to other survey questions

A key consideration when choosing the research methodology was ensuring the appearance of the product claim models and control stimuli should approximate those in the real world.

The telephone survey accompanying the mail-out of stimuli was considered the best for the current investigation, and was preferred to online methodology because:

- The appearance of the stimuli would be too dissimilar to what it would be in a real world situation. The size of the picture of the pack, included in an online survey, would no doubt influence the results of the research, and a larger picture would allow for a more prominent claim. Other aspects of the picture, such as font size, visibility of the text, inability to hold the stimulus in one's hand and examine it, all would differ from a real world situation
- The quality of peoples computer screens would influence the appearance of the stimuli, bringing in differences between the claim group and the control group that were not controlled for (e.g. flat screen 17 inch vs. old style 14 inch screen)

Mail-out survey was not recommended because:

- In view of the experimental design, it was important to match the profile of the two groups, those that respond to the stimuli and those that are included in the control group. This would be difficult to manage in a mail out, especially since response rates to a mail out are low.
- A mail out survey increases respondent burden; answers to open ended questions have to be written by hand, and respondents have to read through all the questions, some of which may not be relevant (it lacks the flexibility of a telephone survey, where the programming allows only relevant questions to be asked).
- Explanation of new or unusual concepts which are not readily understood is difficult in mail out surveys. Including explanations in a mail out survey, increases

the length of the questionnaire and reduces the response rate, however, these explanations can easily be read out by interviewers over the phone.

Face to face surveys would have been too expensive to run, whereas focus groups may not have provided the depth of information required.

Five versions of breakfast cereal product stimuli and five versions of the sweet biscuit product stimuli were created. All respondents received stimulus packaging for both a breakfast cereal and a sweet biscuit product. For each product (i.e. breakfast cereal and sweet biscuit), there were four treatment groups and one control group. Respondents who were randomly assigned to the control group received only control stimuli for both breakfast cereal and sweet biscuit. This was to avoid any possible learning effects of exposure to claim on one stimuli package that could influence evaluations and perceptions on non-claim material. The remaining respondents received a random combination of two packages, one chosen from one of the four claim (treatment) groups for the breakfast cereal and the other chosen from one of the four claim (treatment) groups for sweet biscuit.

The study adopted an experimental design using control and treatment stimuli in order to accurately measure any effect of nutrition content claims on respondents' evaluations of the products. While the product stimuli approximate real-world packaging, the situation in which respondents evaluated the products could not approximate the real-environment of the supermarket or the grocery store. This may limit the applicability of the experimental findings to a real-world shopping situation. For example respondents may take more time in evaluating the packaging when responding to the questionnaire than when in a purchase situation⁸. A second study commissioned by FSANZ has explored the use of nutrition content claims in a shopping environment and should be considered in parallel to this study.

⁸ Conversely respondents may take less time in evaluating the breakfast cereal packaging when responding to the questionnaire than when reading the pack while eating breakfast.

3.2 Stage 1: Development of stimuli

Roy Morgan Research's internal graphic design team designed 3-dimensional boxes. The size, design, colours and content of these mock packages were created to replicate as close as possible actual real life shelf products. One advantage that these mock packages had over two dimensional images was that respondents could physically pick up the box and examine it, to best simulate real-world conditions (e.g. as would be done in a supermarket).

For each product (i.e. breakfast cereal and sweet biscuits), there were four nutrition content claims and the control stimuli which had no nutrition content claim. Nutrition content claims were determined through consultation with FSANZ. For breakfast cereal, the nutrition content claims were:

- 97% Fat Free
- Increased Fibre
- Good Source of Fibre
- Reduced Sugar

For sweet biscuits, the nutrition content claims were:

- Low in Saturated Fat
- Reduced Fat
- Good Source of Fibre
- No Added Sugar

Mock packages were developed by a graphic designer at Roy Morgan Research in conjunction with FSANZ feedback in an iterative process. The Labelling and Information Standards section at FSANZ was thoroughly involved in this development process.

Three-dimensional packages were produced to replicate real-world packaging. This allowed respondents to react to the stimuli in a situation as close as possible to the real world, and similar to any other breakfast cereal or sweet biscuits that they may purchase. There are several aspects of the display of the nutrition content claim which can influence the impact of the claim, which manufacturers are no doubt aware of when designing product packs. These include but are not limited to: the size of the packaging and the claim itself; the colours and designs incorporated; font size; and text direction. The experimental design holds these factors constant for each product to allow the effect of the presence of the nutrition content claim to be measured.

For this study, NIP values were chosen so that products would not meet the NPSC as proposed in the PFAR. The NIP values did however meet the criteria for all the claims used for each product. The NIP values were identical for all four nutrition content claim product packages for each respective product. By designing the mock packages to not

meet the NPSC the products represent those where greatest concern has been expressed, that is those of lower nutritional quality. However, in designing the study in this manner the findings are not directly transferrable to products that are considered to be of higher nutritional quality. See Appendix E for information in the NIP, claim information and NPSC information.

Each respondent received a package containing a flattened breakfast cereal box and sweet biscuit box and directions to fold to create the actual 3-dimensional box. At the beginning of all telephone interviews, interviewers confirmed that respondents had put together the mock-up packages.

Examples of the mock packaging are provided in Appendix D.

3.3 Stage 2: Questionnaire Development

Draft Questionnaire

In order to measure the level of impact that nutrition content claims have on purchase intentions and product evaluations, a draft questionnaire was provided by FSANZ to Roy Morgan Research.

The survey consisted of 40 items, addressing 10 sections: consumers' purchase intention; product evaluations; information used to evaluate products; consumer nutrition knowledge; consumer motivations to read nutrition label information; consumer food consumption motivations; consumer trust in nutritional label information (nutrition content claims and the Nutrition Information Panel (NIP)); and consumers' socio-demographic information. Measures were taken from international studies with high validity and reliability among tested target populations^{9,10,11,12,13}. Measures were also taken from previous FSANZ studies.

The questions in the questionnaire were ordered to limit the impact of prompting or learning from questions on subsequent questions. In particular the questions about intent to purchase were asked prior to any questions about the nutritional quality of the product. In this way respondents were not prompted to nutritional issues in answering the intent to purchase question. Thus nutritional quality would only be incorporated into the decision-making if the respondent normally considered this aspect, and the answer more accurately reflects the response if taken in a shopping environment. Subsequent questions about nutritional quality may prompt respondents to explore aspects of the pack that they normally may not do, for example the NIP. Importantly instructions to the respondents did not direct them to any particular label elements when responding, thus respondents would use the label elements they felt most relevant in making nutritional evaluations.

⁹ Keller, S. B., Landry, M., Olson, J., Velliquette, A. M., Burton, S., & Andrews, J. C. 1997, 'The effects of nutrition package claims, nutrition facts panels, and motivation to read nutrition information on consumer product evaluations', *Journal of Public Policy & Marketing*, vol. 16, no. 2, pp. 256-269.

¹⁰ Roe, B., Levy, A. S., & Derby, B. M. 1999, 'The impact of health claims on consumer search and product evaluation outcomes: Results from FDA experimental data', *Journal of Public Policy & Marketing*, vol. 18, no. 1, pp. 89-105.

¹¹ Steptoe, A., Pollard, T. M., & Wardle, J. 2005, "Development of a measure of the motives underlying the selection of food: the Food Choice Questionnaire", *Appetite*, vol. 25, pp. 267-284.

¹² Garretson, J. A. & Burton, S. 2000, 'Effects of nutrition facts panel values, nutrition claims, and health claims on consumer attitudes, perceptions of disease-related risks, and trust.', *Journal of Public Policy & Marketing*, vol. 19, no. 2, pp. 213-227.

¹³ Moorman, C. 1996, 'A quasi experiment to assess the consumer and informational determinants of nutrition information processing activities: The case of the nutrition labelling and education act', *Journal of Public Policy & Marketing*, vol. 15, no. 1, pp. 28-44.

Cognitive testing

Prior to finalising the questionnaire, 9 cognitive testing interviews were conducted with people in two locations (Melbourne and Brisbane), who answered the questionnaire in a telephone interview, and subsequently participated in a face-to-face interview regarding their understanding of the survey questions and their interpretation.

The cognitive testing phase helped finalise and refine the survey questions. It also showed that the questionnaire needed to be reduced in length as it was very long, and some parts appeared repetitive.

Pilot testing phase

The questionnaire was pilot tested amongst 16 respondents, and topline results from the pilot were provided to FSANZ. The results of the pilot test were consistent with those of the cognitive testing phase. Some open-ended questions were removed after the pilot testing phase to again reduce the length of the survey.

The final survey is presented in Appendix E.

3.4 Stage 3: Telephone recruitment survey

Respondents meeting the selection criteria (≥ 18 years of age, from Australia or New Zealand) were first recruited using a sample from Roy Morgan Single Source, via a telephone survey. This dataset is Roy Morgan Research's syndicated, nationally representative household survey. As we had detailed demographic information on each respondent, we could efficiently target respondents belonging to pre-specified age-gender groups, resulting in an up-to-date and efficient sampling approach for this project. This recruitment process permits better control of the age-gender composition of the sample, as only those who wish to participate continue to the next stage of the research.

Participants were telephoned using Computer Assisted Telephone Interviewing (CATI), which were conducted during times, recognised from previous experience, when people are most likely to be at home, i.e. between 4pm and 9pm on week nights and between 10am and 6pm on weekends. Most interviews took place in these times; however, additional interview appointments were made outside these times as needed.

Respondents who indicated a willingness to participate were recruited for the project, and were mailed out mock packages which replicated real world packaging. Examples of the mock packaging are provided in Appendix D. Participants were informed at recruitment of the follow up telephone interview that would take place after they received the mock package and instructions in the mail.

Each respondent received two mock packages: one for breakfast cereal and one for sweet biscuits, either both having a nutrition content claim on the package (the treatment conditions) or neither having a nutrition content claim on the package (the control condition). Follow-up telephone interviews took place in the two weeks subsequent to respondents receiving their mock stimuli in the mail.

3.5 Sampling Plan

The Australian sample was drawn proportionally across all the metropolitan and country areas in Australia. The New Zealand sample was drawn proportionally across the 16 Regional Council areas covering both Islands. Respondents were randomly selected, and randomly allocated to one of the five groups in Table 1.

All respondents were sent two stimuli (one for both breakfast cereal and sweet biscuit). Therefore, in the following table, each participant counts towards two of the groups.

Table 1: Sampling plan by stimulus type and country

	Australia	New Zealand	Target sample size
Breakfast cereal Treatment Group 1: 97% fat free	160	60	220
Breakfast cereal Treatment Group 2: Increased fibre	160	60	220
Breakfast cereal Treatment Group 3: Good source of fibre	160	60	220
Breakfast cereal Treatment Group 4: Reduced sugar	160	60	220
Breakfast cereal Control Group Absence of nutrition content claim	160	60	220
Sweet biscuit Treatment Group 1: Low in saturated fat	160	60	220
Sweet biscuit Treatment Group 2: Reduced Fat	160	60	220
Sweet biscuit Treatment Group 3: Good source of fibre	160	60	220
Sweet biscuit Treatment Group 4: No added sugar	160	60	220
Sweet biscuit Control Group Absence of nutrition content claim	160	60	220
Target Sample Size	800	300	1100

A sample size of 1,100 was recommended as appropriate to determine the impact that nutrition content claims have on product evaluation and purchase intent, yet modest enough to protect against small differences in results reaching statistical significance.

The sampling plan aimed to achieve the following numbers for each treatment group and control group, to ensure that the samples were comparable for analytical purposes (Table 2):

Table 2: Sample plan breakdown by gender, age and country

	Australia		New Zealand		Total
	Female	Male	Female	Male	
18-34	26	27	10	10	73
35-54	29	30	11	12	82
55+	25	23	9	8	65
Total	80	80	30	30	220

Overall, 1,060 of the sample size target of 1,100 interviews were conducted (96.4%). Achieved sample sizes for each cell are presented in Appendix A.

3.5.1 Response Rates

Respondents were over recruited using quotas designed to compensate for participant drop out. In order to achieve a final sample size of approximately 800 in Australia and 300 in New Zealand, a total sample of 920 participants from Australia and 355 participants from New Zealand were recruited.

A total of 2,358 eligible respondents¹⁴ were contacted, of which 1,275 were recruited and sent the stimuli (response rate of 54.1%). Of those recruited, altogether 1,060 respondents completed the follow-up telephone interview, resulting in a participation rate of 88.9% of the 1,193 that were successfully contacted. Table 3 shows the breakdown of all call attempts made to the 1,275 recruited respondents.

¹⁴ A total of 157 ineligible respondents were also contacted – 130 where the age, gender, location quota had been filled, and 27 who worked in the food or advertising industry

Table 3: Outcomes of interview phone calls

Outcome	Number	Percent
Completed interviews	1060	83.1
Appointments	27	2.1
Refusals/terminations	106	8.3
Total contacted	1193	93.6
Unobtainable (message from provider - number no longer in use)	5	0.4
More than 3 consecutive engaged / no reply	13	1.1
Fax/modem	3	0.2
Answering machines	17	1.3
General appointments (i.e. not directly with the respondent)	44	3.5
Total not contacted	82	6.9
Total	1275	100

3.6 Profile of sample

A brief analysis of the profile of respondents was conducted, to investigate if there were any pre-existing differences between the control and treatment groups, in terms of socio-demographic information. As shown in Table 4, there were no differences recorded in terms of age group, gender, country, and household income.

Table 4: Socio-demographic differences between those exposed to nutrition content claims and those not

	Category	Claim present	Claim absent	Statistic
Age-group	Younger (18-34)	276 (32.5%)	66 (31.3%)	$\chi^2(2)=0.26$, p=0.88, <u>n.s.</u>
	Middle (35-54)	326 (38.4%)	80 (37.9%)	
	Older (55+)	247 (29.1%)	65 (30.8%)	
Sex	Male	428 (50.4%)	106 (50.2%)	$\chi^2(1)=0.00$, p=0.96, <u>n.s.</u>
	Female	421 (49.6%)	105 (49.8%)	
Income*	1 st quartile (less than \$40,000)	213 (29.3%)	58 (31.5%)	$\chi^2(3)=4.72$, p=0.19, <u>n.s.</u>
	2 nd quartile (\$40,001 - \$70,000)	193 (26.6%)	50 (27.2%)	
	3 rd quartile (\$70,001 - \$100,000)	169 (23.3%)	30 (16.3%)	
	4 th quartile (\$100,000+)	151 (20.8%)	46 (25.0%)	
Country	Australia	592 (69.7%)	148 (70.1%)	$\chi^2(1)=0.01$, p=0.91, <u>n.s.</u>
	New Zealand	257 (30.3%)	63 (29.9%)	

* 150 respondents chose not to answer this question

3.7 Variables of interest and reclassification

The survey addressed issues pertaining to purchase intention, nutritional attitudes, consumer motivations, nutritional knowledge, information used in product evaluations, health concerns, and trust in nutritional label information (nutrition content claims and the NIP), as well as socio-demographic information.

Measures were taken from previous FSANZ research, as well as from international studies^{15,16,17,18,19}.

Table 5 shows the variables used in the study based on those taken from the international literature and previous FSANZ research (specified above).

¹⁵ Keller, S. B., Landry, M., Olson, J., Velliquette, A. M., Burton, S., & Andrews, J. C. 1997, 'The effects of nutrition package claims, nutrition facts panels, and motivation to read nutrition information on consumer product evaluations', *Journal of Public Policy & Marketing*, vol. 16, no. 2, pp. 256-269.

¹⁶ Roe, B., Levy, A. S., & Derby, B. M. 1999, 'The impact of health claims on consumer search and product evaluation outcomes: Results from FDA experimental data', *Journal of Public Policy & Marketing*, vol. 18, no. 1, pp. 89-105.

¹⁷ Steptoe, A., Pollard, T. M., & Wardle, J. 2005, "Development of a measure of the motives underlying the selection of food: the Food Choice Questionnaire", *Appetite*, vol. 25, pp. 267-284.

¹⁸ Garretson, J. A. & Burton, S. 2000, 'Effects of nutrition facts panel values, nutrition claims, and health claims on consumer attitudes, perceptions of disease-related risks, and trust.', *Journal of Public Policy & Marketing*, vol. 19, no. 2, pp. 213-227.

¹⁹ Moorman, C. 1996, 'A quasi experiment to assess the consumer and informational determinants of nutrition information processing activities: The case of the nutrition labelling and education act', *Journal of Public Policy & Marketing*, vol. 15, no. 1, pp. 28-44.

Table 5: Variables of interest in the survey

DEPENDENT VARIABLES	INDEPENDENT VARIABLES			
a. Product evaluations	b. Socio-demographic	c. Personal	d. Information used	e. Groups
Nutrition attitude ^a (general)	Age group	Nutrition knowledge	Information used in evaluations	Claim/No claim
Nutrition attitude (specific)	Gender	Trust in nutritional label information		Product type: breakfast cereal / sweet biscuit
Purchase intentions	Household income	Food consumption motivation		Claim type
Who would benefit	Number of dependents	Motivation to read nutrition information		
Type of health benefits	Country	Attention to healthy diet		
	Ethnicity	Health concerns		
	Education	Fruit and veg intake		
		Main grocery shopper		

^a Nutrition attitude refers to the nutritional value that the respondent perceives each product possesses.

Using knowledge and existing protocols and guidelines (from peer-reviewed publications and FSANZ studies above), scale variables and categorical variables were manipulated to measure the specific dimensions of interest. Scale variables were sometimes transformed to categorical variables where appropriate or necessary for the analyses undertaken.

Tables 6 and 7 indicate the changes that were made to the variables (dependent and independent) to create the new categories:

Table 6: Dependent variables manipulated for use in analyses and reporting

Variable	Description	Manipulation	Rationale	Outcome categories
Purchase intention	7 point scale (1 qn)	nil	-	Score (1 – 7)
General nutrition attitude	7 point scale (2 qn)	Mean score created	-	Mean score (1 – 7)
Specific nutrition attitude	7 point scale (2 qn)	Mean score created	-	Mean score (1 – 7)
Perceived number of people who would benefit	7 categories (1 qn)	Multiple responses reduced to a scale	For use in analyses, collapsing to single score was necessary	Scale of the number of persons who would benefit (0 – 7)
Perceived number of health benefits	11 categories (1 qn)	Multiple responses reduced to a scale	For use in analyses, collapsing to single score was necessary	Scale of the number of types of benefits (0 – 11)

Table 7: Independent variables manipulated for use in analyses and reporting

Variable	Description	Manipulation	Rationale	Outcome categories
Education	6 categories (Aus); 7 categories (NZ)	Collapse into 2 groups	Different rating scales are utilised in Australia and New Zealand	Secondary; Higher than secondary
Number of dependents	2 categories (17 and under)	Collapse into dichotomous groups	To determine the impact of product evaluation when dependent's needs were considered	None; One or more
Household Income	12 categories	Re-code into quartiles	Reliable and consistent measure of income	1 st quartile; 2 nd quartile; 3 rd quartile; 4 th quartile
Ethnicity	4 categories (Aust & NZ)	Collapsed into dichotomous groups		Indigenous; Non-Indigenous
Main grocery shopper	4 categories	Combined into 2 groups	For ease of use in multivariate analyses	None/less than half; Half/Most/All
Information used to evaluate products	10 categories	Sum and collapse in to general and specific	Due to multiple responses being available, creating a scale score was analytically important	
Nutrition knowledge	8 questions (correct /incorrect)	Recoded appropriate variables and created index score, two levels		Less than 75% correct; 75% or more correct
Trust in nutritional label information	7 point scale (2 qns)	Mean of 2 items Split into 3 categories	Scale used in regression analyses; categories necessary for ANOVAs	Low (1-3.5); Medium (4-5.5); High (6-7)
Motivation to read nutrition information	7 point scale (2 qns)	Averaged and split into 3 categories	Scale used in regression analyses; categories necessary for ANOVAs	Low (1-4); Medium (4.5-6); High (6.5-7)

Table 7: Independent variables manipulated for use in analyses and reporting (continued)

Variable	Description	Manipulation	Rationale	Outcome categories
Food consumption motivations	4 point scale (18 qns)	Factor analysis to discover related factors	To summarise the data for use in subsequent multivariate analyses	Six factors were revealed
Health concerns	9 categories	Sum and collapse in to general and specific	Due to multiple responses being available, creating a scale score was analytically important	None; General only; Specific only; Both
Attention to healthy diet	6 point scale (1 qn)	Scale collapsed to three levels	Very few scores in the lower categories necessitated combining	No / Very low / Low; Medium; High / Very High
Fruit and veg intake	6 categories (2 qns)		As Australia and New Zealand have differing guidelines on recommended daily intake, serves per day was taken as most reliable measure	

3.8 Analysis

Analytical methods were chosen that would provide the most information in relation to the specific research hypotheses, as outlined in Section 2.2. The specific tools that were selected and their functions are detailed in Table 8.

- T-tests
- Chi-square tests
- ANOVA
- Regression
- Factor Analysis

Table 8: Description of statistical tools used in this report

Analytical tool	Specific functions
T-test	Compare means of independent samples
Chi square test	Compare sample distributions of nominal or ordinal variables
Analysis of Variance (ANOVA)	Examines the differences among means for two or more samples
Regression	Determines the 'best fit' of a series of variables in predicting the dependent variable
Factor Analysis	A procedure used for data reduction or summarisation

4. RESULTS

4.1 Descriptive statistics of key variables

4.1.1 Overall product evaluations

Dependent variables were examined to detect any abnormalities which may lead to problematic interpretation of any results. Five dependent variables (purchase intention, general nutrition attitude, specific nutrition attitude, perceived number of people who would benefit from eating the product, and perceived number of types of health benefits from eating the product) were explored. No dependent variables had normal distributions; however ANOVA and regression are generally robust to violations of normality. Skewness was not an issue of concern, with scores relatively symmetrical. A full review of the assumptions of analyses and procedures used to test assumptions is provided in Appendix C (Technical Appendix).

The purchase intentions and product evaluations were investigated by independent variable to determine differences in one-way ANOVAs (see Sections 4.2 - 4.6). Purchase intentions were strongest amongst respondents with high levels of trust in nutritional label information (mean = 4.12), whereas was lowest in those with low trust and those in the 4th (highest) income quartile (mean = 3.33). Table 9 provides the mean responses and standard deviations for each product evaluation variable for those respondents who were exposed to a nutrition content claim; Table 10 provides the same information but for those respondents who were not exposed to a nutrition content claim.

Table 9: Mean overall product evaluations for respondents exposed to claims

	Product evaluation	Purchase intention			General product nutrition attitude			Specific product nutrition attitude			Perceived number of people who benefit			Perceived number of health benefits		
		n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Total		831	3.66	1.43	823	4.45	1.18	760	4.78	0.98	849	4.04	2.02	849	4.33	2.63
Gender	Male	418	3.54	1.38	410	4.46	1.17	376	4.75	0.97	428	4.21	1.99	428	4.63	2.66
	Female	413	3.78	1.48	413	4.44	1.18	384	4.80	1.00	421	3.87	2.05	421	4.03	2.56
Age group	18-34 yrs	274	3.52	1.30	265	4.48	1.08	254	4.83	0.94	276	4.18	1.90	276	4.17	2.29
	35-54 yrs	323	3.60	1.29	319	4.29	1.14	301	4.66	0.97	326	3.81	2.10	326	4.03	2.60
	55+ yrs	234	3.91	1.71	239	4.64	1.30	205	4.88	1.05	247	4.20	2.04	247	4.92	2.92
Country	Australia	577	3.58	1.50	575	4.41	1.23	526	4.77	1.03	592	3.85	2.10	592	4.20	2.68
	New Zealand	254	3.84	1.26	248	4.54	1.05	234	4.80	0.87	257	4.48	1.76	257	4.63	2.50
Dependents	No	470	3.76	1.53	467	4.51	1.18	421	4.79	1.01	485	4.06	2.03	485	4.48	2.67
	Yes	360	3.53	1.29	355	4.37	1.16	338	4.76	0.95	363	4.01	2.02	363	4.12	2.54
Education	Secondary	378	3.83	1.47	381	4.67	1.16	343	4.91	1.02	445	3.91	1.91	391	4.86	2.83
	Higher than secondary	430	3.50	1.39	419	4.25	1.16	397	4.65	0.94	435	3.64	2.08	435	3.85	2.36
Income	1 st quartile	208	3.95	1.54	209	4.77	1.17	193	5.00	0.97	231	4.36	1.90	213	5.00	2.86
	2 nd quartile	189	3.88	1.41	185	4.61	1.04	167	4.85	0.93	193	4.42	1.96	193	4.46	2.59
	3 rd quartile	169	3.55	1.29	165	4.31	1.19	157	4.68	0.99	169	3.74	2.05	169	4.04	2.45
	4 th quartile	150	3.25	1.22	150	4.09	1.04	141	4.60	0.91	151	3.57	2.10	151	3.84	2.28
Ethnicity	Non-Indigenous	784	3.65	1.45	776	4.45	1.19	715	4.76	1.00	801	3.98	2.02	801	4.28	2.60
	Indigenous	47	3.77	1.19	46	4.59	0.96	44	4.84	0.73	47	5.23	1.58	47	5.39	2.84

Purchase intention, general nutrition attitude, and specific nutrition attitude (1-7), where 1 = low and 7 = high; Perceived number of people who benefit (scale 0-7); Perceived number of health benefits (scale 0-11)

Table 9: Mean overall product evaluations for respondents exposed to claims (continued)

	Product evaluation	Purchase intention			General product nutrition attitude			Specific product nutrition attitude			Perceived number of people who benefit			Perceived number of health benefits		
		n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Trust	Low	164	3.24	1.48	158	4.03	1.28	138	4.37	1.04	169	3.20	2.19	169	3.49	2.59
	Medium	443	3.61	1.35	439	4.45	1.06	408	4.76	0.91	447	4.08	1.96	447	4.27	2.45
	High	218	4.08	1.46	221	4.75	1.23	211	5.08	1.00	225	4.58	1.84	225	5.11	2.81
Attention to healthy diet	None/Low/Very low	46	3.47	1.38	41	4.77	1.12	39	4.80	1.11	49	4.68	1.83	49	4.62	2.54
	Medium	309	3.74	1.38	305	4.53	1.12	281	4.74	0.96	316	4.21	1.95	316	4.50	2.52
	High/Very high	476	3.63	1.47	477	4.38	1.21	440	4.79	0.99	484	3.87	2.07	484	4.19	2.70
Health concerns	None	36	3.22	1.39	33	4.45	1.23	27	4.54	1.05	36	4.36	2.07	36	4.90	2.87
	General	32	3.55	1.35	31	4.44	0.93	29	4.69	0.89	33	4.08	1.83	33	3.68	2.32
	Specific	242	3.66	1.43	241	4.39	1.22	230	4.76	1.03	247	3.99	2.06	247	4.21	2.58
	Both	521	3.70	1.44	518	4.48	1.17	474	4.80	0.96	533	4.04	2.02	533	4.39	2.65

Purchase intention, general nutrition attitude, and specific nutrition attitude (1-7), where 1 = low and 7 = high; Perceived number of people who benefit (scale 0-7); Perceived number of health benefits (scale 0-11)

Table 10: Mean overall product evaluations for respondents not exposed to claims

	Product evaluation	Purchase intention			General product nutrition attitude			Specific product nutrition attitude			Perceived number of people who benefit			Perceived number of health benefits		
		n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Total		208	3.87	1.46	207	4.48	1.21	185	4.73	0.99	211	3.81	2.14	211	4.15	2.72
Gender	Male	105	3.78	1.38	104	4.57	1.23	88	4.82	0.97	106	4.14	2.24	106	4.79	2.98
	Female	103	3.96	1.53	103	4.38	1.20	97	4.64	0.99	105	3.48	2.00	105	3.50	2.27
Age group	18-34 yrs	66	3.57	1.42	64	4.19	1.24	63	4.68	0.91	66	3.55	2.09	66	3.70	2.53
	35-54 yrs	79	3.91	1.36	79	4.47	1.02	71	4.58	0.92	80	3.76	1.99	80	4.05	2.60
	55+ yrs	63	4.13	1.57	64	4.77	1.34	51	4.99	1.13	65	4.12	2.37	65	4.72	2.99
Country	Australia	146	3.82	1.46	146	4.36	1.30	129	4.70	1.01	148	3.51	2.21	148	3.92	2.76
	New Zealand	62	3.98	1.45	61	4.74	0.94	56	4.79	0.93	63	4.50	1.83	63	4.67	2.59
Dependents	No	118	3.91	1.46	119	4.60	1.26	101	4.78	1.02	121	4.04	2.20	121	4.50	2.89
	Yes	90	3.81	1.46	88	4.31	1.13	84	4.66	0.95	90	3.50	2.04	90	3.68	2.41
Education	Secondary	107	4.10	1.51	107	4.75	1.10	95	4.86	1.02	110	4.09	2.15	110	5.60	2.72
	Higher than secondary	98	3.56	1.33	97	4.13	1.25	87	4.54	0.91	98	3.40	2.06	98	3.57	2.63
Income	1 st quartile	57	4.09	1.55	57	4.70	1.19	52	4.93	1.01	58	4.32	2.16	58	4.84	2.64
	2 nd quartile	49	3.81	1.36	50	4.41	1.09	45	4.59	1.05	50	4.03	1.80	50	4.13	2.42
	3 rd quartile	30	4.00	1.38	25	4.50	1.30	27	4.58	0.72	30	3.27	2.16	30	4.02	2.68
	4 th quartile	46	3.59	1.33	46	4.17	1.14	42	4.57	0.87	46	3.45	2.17	46	3.58	2.88
Ethnicity	Non-Indigenous	192	3.81	1.44	192	4.43	1.22	170	4.70	0.97	195	3.72	2.16	195	4.01	2.67
	Indigenous	14	4.57	1.57	13	5.23	0.84	13	5.17	0.98	14	5.11	1.32	14	6.18	2.90

Purchase intention, general nutrition attitude, and specific nutrition attitude (1-7), where 1 = low and 7 = high; Perceived number of people who benefit (scale 0-7); Perceived number of health benefits (scale 0-11)

Table 10: Mean overall product evaluations for respondents not exposed to claims (continued)

	Product evaluation	Purchase intention			General product nutrition attitude			Specific product nutrition attitude			Perceived number of people who benefit			Perceived number of health benefits		
		n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
Trust	Low	39	3.6	1.63	37	4.06	1.45	32	4.43	1.11	40	3.34	2.39	40	3.65	2.77
	Medium	125	3.76	1.38	125	4.35	1.12	113	4.66	0.94	125	3.62	2.05	125	3.84	2.54
	High	43	4.34	1.46	44	5.19	0.97	39	5.18	0.90	44	4.91	1.81	44	5.55	2.82
Attention to healthy diet	None/Low/Very low	8	2.38	0.92	8	4.03	1.26	7	4.43	1.09	9	3.39	2.48	9	3.83	2.59
	Medium	77	3.99	1.39	75	4.59	1.09	69	4.77	0.99	78	4.04	2.08	78	4.33	2.66
	High/Very high	123	3.89	1.48	124	4.43	1.28	109	4.72	0.99	124	3.69	2.16	124	4.06	2.79
Health concerns	None	11	4.00	1.79	9	4.50	0.61	10	4.60	1.19	11	3.00	2.37	11	3.91	2.44
	General	5	5.30	1.10	6	4.58	1.46	6	5.00	0.55	6	3.33	2.54	6	3.92	2.42
	Specific	55	3.49	1.45	55	4.38	1.16	49	4.81	0.96	55	3.76	2.05	55	3.81	2.51
	Both	137	3.96	1.41	137	4.51	1.29	120	4.69	1.00	139	3.91	2.15	139	4.31	2.84

Purchase intention, general nutrition attitude, and specific nutrition attitude (1-7), where 1 = low and 7 = high; Perceived number of people who benefit (scale 0-7); Perceived number of health benefits (scale 0-11)

4.1.2 Usage of package information in overall product evaluations

In general, the NIP was the most commonly reported source of information respondents used to evaluate the products, with best before date, country of origin and brand name being considered less relevant (see Table 11). Somewhat surprisingly, 40% of respondents who were not exposed to claim material indicated the use of nutrition content claims as a source of information (see Section 4.1.2.1). This suggests that a number of respondents considered some label elements to be nutrition content claims, though they would not be considered nutrition content claims within a regulatory context²⁰.

Respondents with secondary education, indigenous respondents, those with low nutrition knowledge, and those with high trust in nutrition label information were more likely to report the use of nutrition content claims. Those not exposed to claims were more likely to cite the pictures on the product as information sources compared with those not exposed to claims. Additionally, younger persons (18-34 years), respondents with dependents, Indigenous persons, respondents with low nutrition knowledge, high trust in nutrition label information, and those with low attention to healthy diet cited pictures on the product as useful in their evaluations. Females were more likely than males to use ingredient lists and allergen information, whereas respondents in the 4th income quartile were less likely to use ingredient list, allergen information, descriptions of the product, best before date and country of origin. Respondents with high level of attention to a healthy diet were more likely to use the NIP and ingredient list in evaluating the products. Older respondents were more likely to utilise descriptions of the product and country where product was manufactured than younger and middle-aged cohorts.

²⁰ While some respondents may have confused nutrition content claims with other label elements, the analysis and reporting of the impact of nutrition content claims on evaluations is based on the respondent's allocation to a control or treatment group and not the respondents identification of a nutrition content claim.

Table 11: Proportion of respondents who used information (general and product package) in product evaluation

Product evaluation	Proportion (%)	n	NIP	General knowledge	Ingredients list	Pictures on product	Claim on front of pack	Allergen info	Descriptions of product	Best before date	Country where product manufactured	Brand name
Total		1060	88.5	87.7	80.4	56.5	55.1	41.6	39.2	19.5	18.5	17.9
Claim	Claim	849	88.0	87.0	80.9	55.0*	58.8***	41.1	38.9	19.8	18.6	17.9
	No claim	211	90.5	90.5	78.2	62.6	40.3	43.6	40.3	18.5	18	18
Gender	Male	534	89.0	88.4	77.1	58.6	55.6	37.8	40.1	18.9	18.5	19.9
	Female	526	88.0	87.1	83.1*	54.4	54.6	45.4*	38.2	20.2	18.4	16
Age group	18-34 yrs	342	89.2	88.0	76.9	62.6	55.3	39.5	34.2	17.8	12	19.9
	35-54 yrs	406	90.4	88.4	83.5	56.7	52.5	42.4	38.7*	19.7	18.7	17
	55+ yrs	312	85.3	86.5	80.1	49.7**	58.3	42.9	45.2	21..2	25.3***	17
Country	Australia	740	88.4	87.2	79.6	55.3	53.6	43.2	37.8	18.5	18.9	18.4
	New Zealand	320	88.8	89.1	82.2	59.4	58.4	37.8	42.2	21.9	17.5	16.9
Dependents	No	523	86.6*	86.3	79.9	51.8	54.8	42.2	38.6	19.5	21	17.3
	Yes	406	90.9	89.6	81	62.7***	55.4	40.6	39.7	19.4	15.0*	18.5
Education	Secondary	501	87.2	87	77.4	61.7	60.5	42.1	47.7	22.6	23	21.6
	Higher than secondary	533	89.5	88	83.1*	51.4**	49.3***	41.3	30.8***	16.7*	14.4***	13.9**
Income	1 st quartile	271	87.8	87.1	86.3	55.4	58.3	47.2	45.4	24.7	24.7	19.2
	2 nd quartile	243	90.1	86.8	78.2	60.9	57.6	39.1	39.9	17.3	15.2	15.6
	3 rd quartile	199	90.5	88.9	83.4	49.7	51.3	43.2	33.2	18.1	16.6	17.6
	4 th quartile	197	87.8	89.3	74.1**	58.9	50.8	34.5*	32.0**	11.2**	11.2**	10.7
Ethnicity	Not indigenous	996	88.1	87.7	80.4	55.7	54	41.7	38.7	19.3	18	17.7
	Indigenous	61	95.1	90.2	80.3	70.5*	72.1**	41	47.5	24.6	24.6	23

Table 11: Proportion of respondents who used information (general and product package) in product evaluation (continued)

Product evaluation	Proportion (%)	n	NIP	General knowledge	Ingredients list	Pictures on product	Claim on front of pack	Allergen info	Descriptions of product	Best before date	Country where product manufactured	Brand name
Nutrition knowledge	Low	406	84.7	82.8	77.8	63.3	61.1	44.3	48.8	25.9	23.2	23.9
	High	654	90.8**	90.8***	82	52.3***	51.4**	39.9	33.2***	15.6***	15.6**	14.2***
Trust in nutrition label info	Low	209	82.3	83.7	72.7	45.9	40.2	29.2	32.5	17.2	18.2	12.4
	Medium	572	90.7	88.3	83.9	56.3	53.5	43.5	37.4	16.6	17	18
	High	269	89.2**	89.6	79.9**	65.1***	71.0***	48.0***	48.7**	26.4**	22.3	21.6*
Attention to healthy diet	Low	58	75.9	82.8	65.5	69	53.4	31	37.9	20.7	15.5	22.4
	Medium	394	86.3	88.6	75.9	60.7	46.3	39.6	40.9	18	18	19.5
	High	608	91.1**	87.7	84.7***	52.6**	54.4	43.9	38.2	20.4	19.1	16.4

Bold indicates significant differences

* p<0.05

** p<0.01

***p<0.001

Note: Multiple responses allowed

4.1.3 Additional unprompted reasons given for making product evaluations

After evaluating each product respondents were asked in an open-ended unprompted question why they gave the product the rating they had answered. The responses provided differed between the two products and across socio-demographic categories.

Breakfast Cereal

The highest cited reason given for making breakfast cereal evaluations was 'high in sugar' (9.7%). There was a distinct difference between country of residence of respondents, with New Zealand respondents citing this reason less often than Australian respondents (6.1% vs. 10.4%). In contrast, New Zealand respondents were more likely to report nutritional information (e.g. quantity per serve/100g of energy, etc) than Australian respondents (10.2% vs. 6.6%). Females were more likely to mention low levels of sugar (7.7%) compared to males (4.7%), while conversely males (7.1%) quoted the breakfast cereal was similar to others on the market more frequently than females (4.3%).

Sweet Biscuits

Nutritional and/or related information was the most quoted unprompted reason for the ratings given to the sweet biscuit (9.1%), closely followed by high levels of sugar (9.0%). Males cited nutritional information (11.5%) more than females (6.7%), while respondents who did none of the grocery shopping (13.3%) also referred to nutritional guidance as their most common resource. Female respondents were more likely to report high levels of sugar than male respondents (11.4% vs. 6.5%). Respondents aged 55 years and over (10.9%) cited good ingredients in making their appraisals more so than younger cohorts (18-34 years – 6.0%; 35-54 years – 5.1%).

4.1.3.1 Use of claim as source of information

Despite not being exposed to materials with nutrition content claims, 40.3% of control respondents indicated that claims on packaging influenced their evaluations of the product. Therefore, the respondents' personal definition of 'claim' may need further investigation. Although respondents were given examples of claims (e.g. 'high in fibre, low in fat, no added sugar') they may have interpreted other information on the packaging as being part of the 'claim'. This may have included advertising pitch lines, for example on the breakfast cereal packaging it states 'A golden start to your day' and 'Goodness. Every family deserves it'. Further analysis would be required to pinpoint the exact interpretation of 'claim' by respondents in this context. Importantly, for the purposes of measuring the impact of nutrition content claims on product evaluations, each respondent's allocation to a control or treatment group is used to distinguish exposure or non-exposure to a nutrition content claim and not the respondent's own identification of a claim.

Table 12: Use of claims in evaluating products, by exposure to claim

Proportions	Exposure to claim		No exposure to claim		Total	
	n	%	n	%	n	%
Reported use of claim	499	58.8	85	40.3	584	55.1
Reported no use of claim	350	41.2	126	59.7	476	44.9
Total	849	80.1	211	19.9	1060	100.0

4.1.4 Cognitive and behavioural measures

This section explores the variables of interest in terms of cognitive and behavioural measures that may affect the dependent variables. Descriptive statistics of several variables which are not included in further analyses, however are of interest in the univariate sense, are also included in this section.

For the purpose of this current investigation, trust in nutritional label information was measured, using the combination of two variables: trust in front of package information (nutrition content claim), and trust in Nutrition Information Panel (NIP). These items were averaged to provide a mean trust score which is used throughout the analyses in this report as an index of the level of trust respondents have in the information that is available on packaging. Means for both trust items are provided in the table below, as is the overall trust score and other cognitive and behavioural measures.

In general, respondents had moderate levels of trust in nutritional label information overall, which was stronger in trust in NIP than in specific nutrition content claims ($t(1049)=21.675$, $p<0.001$). Additionally, there was evidence to suggest that respondents had a moderate level of motivation to read nutrition information and had a high attention to healthy diet. Daily consumption of fruit was slightly above recommended levels (2 per day) in New Zealand respondents, and slightly below in Australian respondents. Recommended daily intake of vegetables varies between Australia (5 per day) and New Zealand (3 per day), but respondents from both countries consumed vegetables below the recommended levels.

Table 13: Mean scores for cognitive and behavioural measures

Variable	M (SD)
Trust in nutritional label information overall (1-7)	4.78 (1.34)
Trust in nutrition content claims (1-7)	4.20 (1.73)***
Trust in Nutrition Information Panel (1-7)	5.36 (1.45)
Motivation to read nutrition information (1-7)	5.19 (1.59)
Attention to healthy diet (1-5)	3.67 (0.83)
Consumption of fruit (pieces)	2.01 (1.15)
Australia	1.89 (1.09)
New Zealand	2.29 (1.25)
Consumption of vegetables (pieces)	2.43 (1.34)
Australia	2.45 (1.37)
New Zealand	2.40 (1.27)

Trust (1-7), where 1 = strongly disagree, 7 = strongly agree

Motivation to read nutrition information (1-7), where 1 = Not at all interested, 7 = Very interested

Attention to healthy diet (1-5), where 1 = Very high amount of attention, 5 = Very low amount of attention

Bold indicates significant differences

***p<0.001

Table 14: Distribution of sample by cognitive and behavioural measures

Variable	Categories	% respondents
Trust in nutritional label information (overall)	Low	19.7
	Medium	54.0
	High	25.4
Attention to healthy diet	None/Very low/low	5.5
	Medium	37.2
	High/very high	57.4
Health concerns ²¹	None	4.4
	General dietary concerns only (total)	3.7 (67.1)
	Specific health concerns only (total)	28.5 (91.9)
	Both general and specific concerns	63.4
Motivation to read nutrition information	Low	25.1
	Medium	44.7
	High	30.0
Main grocery shopper	None or less than half of household shopping	22.7
	Half or most/all of household shopping	77.3
Nutrition knowledge	Low	38.3
	High	61.7

²¹ Health concerns –

Specific: 1 – Food allergy

2 – Other health concerns such as asthma, diabetes, migraine

3 – Digestive concerns such as celiac disease, irritable bowel syndrome

4 – Health concerns such as heart disease, high blood pressure or cholesterol

General: 5 – On a specific diet

6 – Watching my weight or others' weight generally

7 – Watching my health or others' health generally

8 – Pregnancy or breast feeding

9 – Religious or ethical beliefs that influence dietary choices, vegetarian or vegan

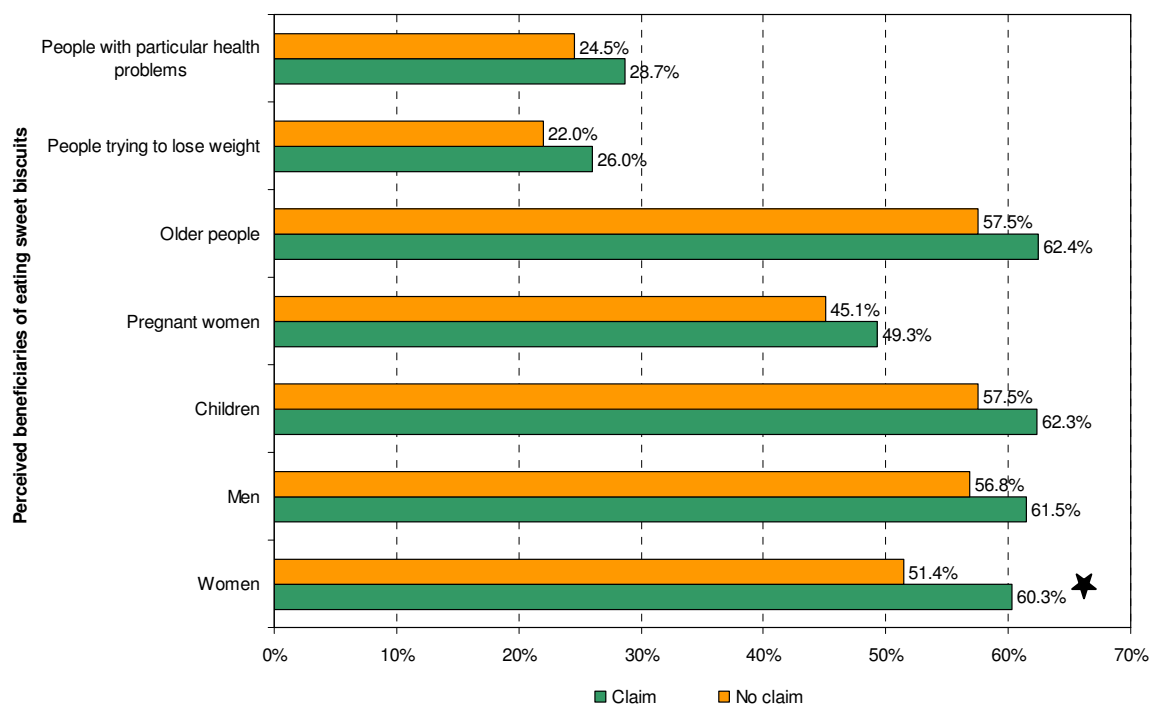
4.1.5 Who would benefit from eating the product

Perceptions of types of people who would benefit from eating sweet biscuits and breakfast cereal are shown in Figure 1 and 2, respectively. There were no significant differences in the perceived beneficiaries of eating breakfast cereal between respondents who were exposed to claims and those who were not. Respondents who were exposed to claims on sweet biscuit stimuli were more likely to indicate that women would benefit from eating sweet biscuits than respondents who were not exposed to claims. Overall respondents exposed to the breakfast cereal were more likely to perceive more people to benefit from eating the product, compared to those exposed to the sweet biscuit, in particular when reporting persons with particular health problems or those trying to lose weight as benefiting from eating the products.

Analysis of the impact of individual claims is reported in 4.8.1 with associated statistical results in Appendix A.

Figure 1: Perceived number of people who would benefit from eating breakfast cereal
Error! Not a valid link.

Figure 2: Perceived number of people who would benefit from eating sweet biscuits



Figures 3 and 4 show the types of perceived health benefits from eating breakfast cereal and sweet biscuits, respectively. For breakfast cereal, there were minimal differences between respondents exposed to nutrition content claims and those who were not for all health benefits, with the exception of reduced fat intake, where respondents exposed to a nutrition content claim were significantly more likely to cite this benefit (Figure 3).

For sweet biscuits, respondents exposed to nutrition content claims were more likely to attribute the product to improvements in heart health and reductions in heart disease, when compared with respondents who were not exposed to nutrition content claims (Figure 4).

Analysis of the impact of individual claims is reported in 4.8.2 with associated statistical results in Appendix A

Figure 3: Perceptions of types of benefits from eating breakfast cereal

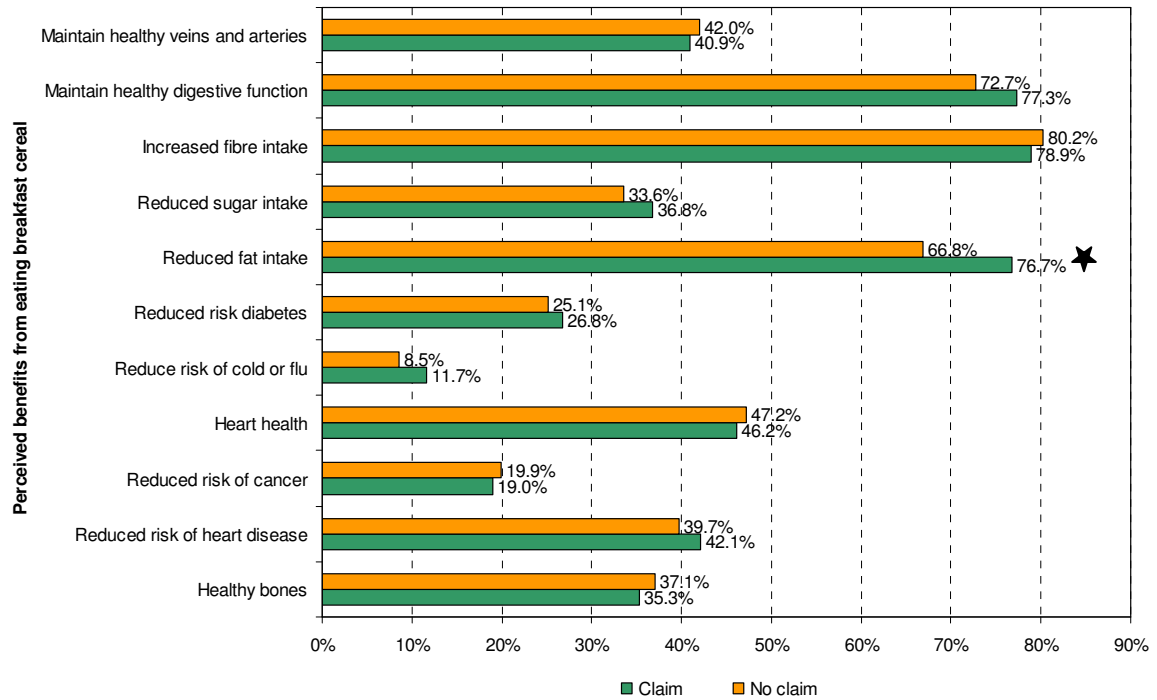
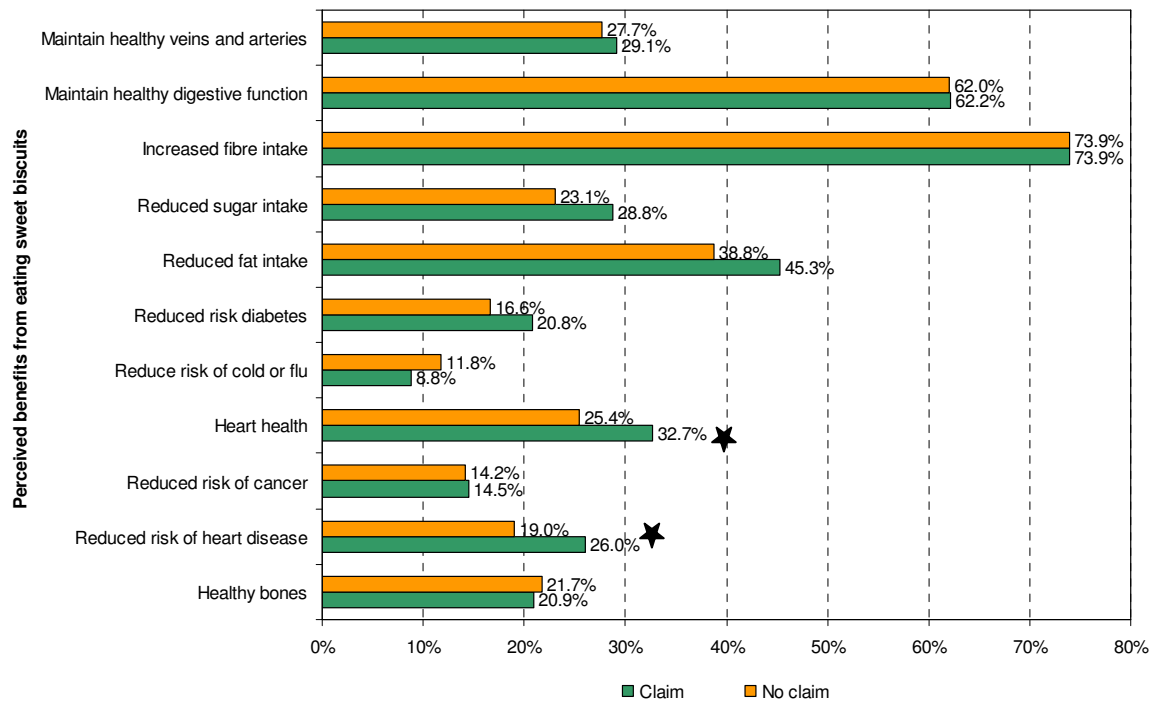


Figure 4: Perceived number of health benefits from eating sweet biscuits



4.2 Effect of a nutrition content claim on purchase intention (overall)

To investigate if there were significant differences between those exposed to a nutrition content claim and those who were not, in terms of their purchase intention (for both breakfast cereal and sweet biscuits combined), one-way Analysis of Variance (ANOVA) was performed. ANOVA is a statistical treatment that is used to determine whether the mean values of the dependent variable (i.e. purchase intention) for several categories of an independent variable (i.e. claim) are equal²². Additional information about ANOVA is included in the Appendix C (Technical Appendix).

In some instances, the Homogeneity of Variances assumption of ANOVA has been violated, as revealed by the Levene test of homogeneity. To correct for these violations, stricter alpha criteria of 0.01 are applied where appropriate, and post-hoc comparisons assume variances are not equal, by utilising the Dunnett's T3 test. More information about assumption testing and violations is included in Appendix C (Technical Appendix).

The mean scores of purchase intention did not differ between those respondents who viewed experimental mock packages (i.e. breakfast cereal/sweet biscuit boxes featuring nutrition content claims) and those who viewed control packages (i.e. boxes with no nutrition content claims) ($F(1, 1037)=3.51, p=0.06, \underline{n.s.}$).

4.2.1 Effect of a nutrition content claim on a breakfast cereal package on purchase intention

When looking at the effect on purchase intention of breakfast cereal, of exposure to nutrition content claims, a significant effect was found, such that respondents who received the control packages with no claims reported stronger purchase intentions than those who received packages with claims ($F(1,1050) = 4.01, p=0.045$).

4.2.2 Effect of a nutrition content claim on a sweet biscuit package on purchase intention

Contrarily, there was no difference in reported purchase intention for sweet biscuits, between claim and no claim groups ($F(1,1044) = 1.17, p=0.28, \underline{n.s.}$).

²² Malhorta, N., Hall, J., Shaw, M., & Oppenheim, P. 2002, *Marketing Research: An Applied Orientation (2nd edn)*. Frenchs Forest, NSW: Prentice Hall.

Table 15: Mean purchase intention for control and experimental groups

	M (SD)	
	Treatment (claim)	Control (no claim)
Overall	3.66 (1.43)	3.87 (1.46)
Breakfast cereal stimuli only	3.49 (1.74)	3.75 (1.65)
Sweet biscuit stimuli only	3.84 (1.77)	3.99 (1.78)

4.2.3 Do socio-demographic variables moderate the relationship between exposure to claim and purchase intention?

Age

Age group was significantly associated with purchase intention when considered with the exposure to claim. Dunnett's T3 t-tests of multiple comparisons (where equal variances not assumed) were performed to identify the variation in age groups from the between groups ANOVA analyses. The older group reported greater purchase intentions than their younger ($p < 0.001$) and middle-aged ($p = 0.039$) counterparts.

Table 16: Impact of claim and age group on purchase intention

Variable	F(df)	p
Claim	$F(1, 1033) = 3.040$	0.082
Age group	$F(2, 1033) = 5.633$	0.004
Claim*age group	$F(2, 1033) = 0.494$	0.610

Note: Homogeneity of variance was violated (Levene's $F(5, 1033) = 5.257$, $p < 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate.

Table 17: Mean purchase intention, by age groups

	Mean	SD
Younger (18 - 34 yrs)	3.53	1.33
Middle (35 - 54 yrs)	3.66	1.31
Older (55 yrs +)	3.95	1.68

Gender

There were no effects (main or interaction) of gender moderating the relationship between exposure to claim and purchase intention.

Table 18: Impact of claim and gender on purchase intention

Variable	F(df)	p
Claim	$F(1, 1035)=3.532$	0.060
Gender	$F(1, 1035)=3.367$	0.067
Claim*gender	$F(1, 1035)=0.067$	0.796

Income level

Intent to purchase was found to vary significantly across income levels, with decreasing intention to purchase with increasing income quartile. Bonferroni t-tests, showed that persons in the 4th quartile had reported lower purchase intentions than persons in the 1st ($p<0.001$) and 2nd quartiles ($p<0.001$). Additionally, persons in the 3rd quartile had lower purchase intentions than persons in the 1st quartile ($p<0.001$).

Table 19: Impact of claim and income level on purchase intention

Variable	F(df)	p
Claim	$F(1, 890)=3.274$	0.071
Income level	$F(3, 890)=5.051$	0.002
Claim*income level	$F(3, 890)=0.938$	0.422

Table 20: Mean purchase intention, by income quartiles

	Mean	SD
1 st quartile	3.98	1.54
2 nd quartile	3.87	1.40
3 rd quartile	3.62	1.31
4 th quartile	3.33	1.25

Country

There was no effect of country of residence on exposure to claim, and the influence on purchase intention.

Table 21: Impact of claim and country on purchase intention

Variable	F(df)	p
Claim	$F(1, 1035)=2.472$	0.116
Country	$F(1, 1035)=3.134$	0.077
Claim*country	$F(1, 1035)=0.167$	0.683

Note: Homogeneity of variance was violated (Levene's $F(3,1035)=3.941$, $p=0.008$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

Education

Education was significantly associated with purchase intention, with secondary educated respondents reporting higher purchase intention than those with education higher than secondary education ($p<0.001$).

Table 22: Impact of claim and education on purchase intention

Variable	F(df)	p
Claim	$F(1, 1009)=2.162$	0.142
Education	$F(1, 1009)=15.061$	<0.001
Claim*education	$F(1, 1009)=0.930$	0.335

Table 23: Mean purchase intention, by education

	Mean	SD
Secondary	3.89	1.48
Higher than secondary	3.52	1.38

Dependents

There was no difference in reported purchase intention, when presence of dependents in the household and claim were investigated together.

Table 24: Impact of claim and dependents on purchase intention

Variable	F(df)	p
Claim	$F(1, 1034)=3.760$	0.053
Dependents	$F(1, 1034)=2.164$	0.142
Claim*dependents	$F(1, 1034)=0.339$	0.561

Note: Homogeneity of variance was violated (Levene's $F(3,1034)=3.855$, $p=0.004$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

Ethnicity

Ethnicity did not affect the relationship between exposure to claim and intention to purchase. However, in the between subjects ANOVA, claim was significant ($p=0.034$), with those exposed to the no-claim material reporting higher purchase intention levels than those exposed to the claim material.

Table 25: Impact of claim and ethnicity on purchase intention

Variable	F(df)	p
Claim	$F(1, 1033)=4.507$	0.034
Ethnicity	$F(1, 1033)=3.764$	0.053
Claim*ethnicity	$F(1, 1033)=2.068$	0.151

Table 26: Mean purchase intention, by claim

	Mean	SD
Claim	3.68	1.45
No claim	3.95	1.32

4.2.4 Do cognitive and behavioural measures moderate the relationship between exposure to claim and purchase intention?

Trust in nutritional label information

Intent to purchase varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated higher purchase intention than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information. Additionally, respondents reporting medium trust were more likely to report greater purchase intention than respondents with low trust ($p = 0.018$).

Table 27: Impact of claim and trust in nutritional label information on purchase intention

Variable	F(df)	p
Claim	$F(1, 1026) = 5.293$	0.022
Trust	$F(2, 1026) = 10.565$	0.0001
Claim*Trust	$F(2, 1026) = 0.557$	0.573

Table 28: Mean purchase intention, by trust

	Mean	SD
Low	3.33	1.52
Medium	3.64	1.36
High	4.12	1.46

Table 29: Mean purchase intention, by claim

	Mean	SD
Claim	3.66	1.43
No claim	3.87	1.46

Attention to healthy diet

Attention to healthy diet was significantly related with purchase intention when added to the model with exposure to claim. However, post hoc comparisons failed to yield significant differences between purchase intention across the three levels of attention to healthy.

Table 30: Impact of claim and attention to healthy diet on purchase intention

Variable	F(df)	p
Claim	F(1, 1033)=0.935	0.334
Attention to healthy diet	F(1, 1033)=5.342	0.005
Claim*attention to healthy diet	F(1, 1033)=2.904	0.055

Table 31: Mean purchase intention, by attention to healthy diet

	Mean	SD
None/very low/low	3.31	1.37
Medium	3.79	1.38
High/very high	3.68	1.48

Motivation to read nutrition information

Motivation to read nutrition information was significantly associated with purchase intention, when added to the model with exposure to claim. Respondents reporting medium motivation levels reported greater purchase intention than those reporting low motivation levels ($p < 0.001$) and high motivation ($p = 0.026$), according to the Dunnett's T3 post-hoc comparisons.

Table 32: Impact of claim and motivation to read nutrition information on purchase intention

Variable	F(df)	p
Claim	$F(1, 1031) = 2.930$	0.087
Motivation to read nutrition information	$F(1, 1031) = 6.339$	0.002
Claim* Motivation to read nutrition information	$F(1, 1031) = 0.241$	0.786

Note: Homogeneity of variance was violated (Levene's $F(5,1031) = 2.805$, $p = 0.016$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table 33: Mean purchase intention, by motivation to read nutritional information

	Mean	SD
Low	3.44	1.33
Medium	3.91	1.36
High	3.62	1.59

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and purchase intention.

Table 34: Impact of claim and main grocery shopper on purchase intention

Variable	F(df)	p
Claim	$\underline{F}(1, 1035)=1.071$	0.301
Main grocery shopper	$\underline{F}(1, 1035)=1.927$	0.165
Claim* Main grocery shopper	$\underline{F}(1, 1035)=1.101$	0.294

Health concerns

The two-way between subjects ANOVA yielded main effects for claim and health concerns, and also an interaction effect of claim \times health concerns. Post-hoc comparisons did not reveal significant differences between the types of health concerns reported (i.e. none, general only, specific only, and general and specific), though small cell sizes for the 'none' and 'general only' groups may have contributed to the inability to track finite differences. The significant interaction effect appears to arise from those who have general health concerns only or no health concerns where the presence of a nutrition content claim resulted in reduction of mean purchase intention to levels similar to those who reported specific or specific and general health concerns. However, the small cell sizes, particularly for general concerns only, necessitate caution be taken when interpreting these interaction findings.

Table 35: Impact of claim and health concerns on purchase intention

Variable	F(df)	p
Claim	$\underline{F}(1, 1031)=8.785$	0.003
Health concerns	$\underline{F}(3, 1031)=2.659$	0.047
Claim*health concerns	$\underline{F}(3, 1031)=3.198$	0.023

Table 36: Mean purchase intention, by health concerns

		Mean	SD
No claim	None	4.00	1.79
	General health concerns	5.30	1.10
	Specific health concerns	3.49	1.45
	Both types of concerns	3.96	1.41
	Total	3.87	1.46
Claim	None	3.22	1.39
	General health concerns	3.55	1.35
	Specific health concerns	3.66	1.43
	Both types of concerns	3.70	1.44
	Total	3.66	1.43
Total	None	3.40	1.51
	General health concerns	3.78	1.44
	Specific health concerns	3.63	1.43
	Both types of concerns	3.75	1.44
	Total	3.70	1.44

Nutrition knowledge

Nutrition knowledge was significantly associated with purchase intention, when added to the model with exposure to claim which remained significant also ($p=0.039$). Respondents with low nutrition knowledge reported greater purchase intention than those reporting high nutrition knowledge ($p<0.001$). In addition, there was an interaction effect of claim \times nutrition knowledge ($p=0.049$), such that purchase intention was greater for respondents not exposed to nutrition content claims who had low nutrition knowledge.

Table 37: Impact of claim and nutrition knowledge on purchase intention

Variable	F(df)	p
Claim	F(1, 1035)=4.257	0.039
Nutrition knowledge	F(1, 1035)=37.016	<0.001
Claim* Nutrition knowledge	F(1, 1035)=3.879	0.049

Table 38: Mean purchase intention, by nutrition knowledge

		Mean	SD
No claim	Low	4.40	1.38
	High	3.50	1.40
	Total	3.87	1.46
Claim	Low	3.95	1.49
	High	3.49	1.37
	Total	3.66	1.46
Total	Low	4.05	1.48
	High	3.49	1.37
	Total	3.70	1.44

4.2.5 Do socio-demographic variables moderate the relationship between exposure to claim and breakfast cereal purchase intention?

As claim was significantly associated with breakfast cereal purchase intention, subsequent analyses were conducted to reveal relationships with socio-demographic, cognitive and behavioural measures.

Age

At the 0.01 alpha level, age was not significantly associated with purchase intention.

Table 39: Impact of claim and age group on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 1054)=4.396	0.036
Age group	F(2, 1054)=3.001	0.050
Claim*age group	F(2, 1054)=0.431	0.650

Note: Homogeneity of variance was violated (Levene's $F(5,1034)=10.174$, $p<0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Gender

The main effect of claim remained when gender was included in the analysis; however gender was not significantly associated with breakfast cereal purchase intention.

Table 40: Impact of claim and gender on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 1056)=4.900	0.027
Gender	F(1, 1056)=0.003	0.958
Claim*gender	F(1, 1056)=0.151	0.698

Table 41: Mean breakfast cereal purchase intention, by claim

	Mean	SD
No claim	3.82	1.72
Claim	3.51	1.78

Income level

Breakfast cereal purchase intention varied significantly across income levels, with persons in the 4th quartile reporting lower breakfast cereal purchase intention than persons in the 1st ($p<0.001$), 2nd ($p<0.001$), and 3rd ($p=0.016$) quartiles.

Table 42: Impact of claim and income level on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 902)=3.281	0.070
Income level	F(3, 902)=6.544	<0.001
Claim*income level	F(3, 902)=1.616	0.184

Note: Homogeneity of variance was violated (Levene's $F(7,902)=2.879$, $p=0.006$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table 43: Mean breakfast cereal purchase intention, by income quartiles

	Mean	SD
1 st quartile (\$0-\$40,000)	3.89	1.88
2 nd quartile (\$40,001-\$70,000)	3.77	1.78
3 rd quartile (\$70,001-\$100,000)	3.50	1.52
4 th quartile (\$100,000 +)	3.04	1.48

Country

Country of respondents was not significantly associated with breakfast cereal purchase intention.

Table 44: Impact of claim and country on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 1056)=3.024	0.082
Country	F(1, 1056)=2.610	0.107
Claim*country	F(1,1056)=0.565	0.452

Education

Education was significantly associated with breakfast cereal purchase intention, with secondary educated respondents reporting greater purchase intention than those with higher than secondary education ($p < 0.001$). In addition, there was an interaction effect of claim \times education, whereby respondents not exposed to the claim with a secondary education reported higher breakfast cereal purchase intention than respondents not exposed to the claim material with a higher than secondary education ($p = 0.018$).

Table 45: Impact of claim and education on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 1030)=2.710	0.100
Education	F(1, 1030)=25.883	<0.001
Claim*education	F(1, 1030)=5.603	0.018

Table 46: Mean breakfast cereal purchase intention, by education and claim

		Mean	SD
No claim	Secondary	4.25	1.73
	Higher than secondary	3.25	1.50
	Total	3.78	1.70
Claim	Secondary	3.71	1.81
	Higher than secondary	3.34	1.74
	Total	3.52	1.78
Total	Secondary	3.83	1.80
	Higher than secondary	3.32	1.69
	Total	3.57	1.77

Dependents

At the 0.01 alpha level, there were no significant effects of having dependents on breakfast cereal purchase intention.

Table 47: Impact of claim and dependent children on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$F(1, 1055)=5.337$	0.021
Dependent children	$F(1, 1055)=0.743$	0.389
Claim*dependent children	$F(1, 1055)=0.657$	0.418

Note: Homogeneity of variance was violated (Levene's $F(3,1055)=5.713$, $p=0.003$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Ethnicity

The main effect of claim remained when ethnicity was included in the model ($p=0.045$); however ethnicity on its own was not significantly associated with breakfast cereal purchase intention.

Table 48: Impact of claim and ethnicity on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$F(1, 1053)=4.030$	0.045
Ethnicity	$F(1, 1053)=1.751$	0.186
Claim*ethnicity	$F(1, 1053)=1.155$	0.283

Table 49: Mean breakfast cereal purchase intention, by ethnicity

	Mean	SD
No claim	3.81	1.72
Claim	3.51	1.77

4.2.6 Do cognitive and behavioural measures moderate the relationship between exposure to claim and breakfast cereal purchase intention?

Trust in nutritional label information

Breakfast cereal purchase intention varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated greater breakfast cereal purchase intention than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information. Additionally, the main effect of claim remained with the inclusion of trust in nutritional label information in to the model.

Table 50: Impact of claim and trust in nutritional label information on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$F(1, 1044)=5.732$	0.017
Trust	$F(2, 1044)=7.748$	<0.001
Claim*Trust	$F(2, 1044)=0.259$	0.772

Table 51: Mean breakfast cereal purchase intention, by trust

	Mean	SD
Low	3.29	1.86
Medium	3.47	1.66
High	4.00	1.82

Attention to healthy diet

Attention to healthy diet was significantly related with breakfast cereal purchase intention ($p=0.028$); however post hoc comparisons failed to yield significant differences between levels of attention to healthy diet. This could be due to the low cell sample sizes of respondents with No/Very Low/Low attention to healthy diet, particularly in the no-claim condition ($n=9$).

Table 52: Impact of claim and attention to healthy diet on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$F(1, 1054)=0.234$	0.629
Attention to healthy diet	$F(2, 1054)=3.578$	0.028
Claim*attention to healthy diet	$F(2, 1054)=1.224$	0.294

Table 53: Mean breakfast cereal purchase intention, by attention to healthy diet

	Mean	SD
None/Very Low/Low	3.45	1.92
Medium	3.73	1.71
High/Very High	3.48	1.78

Motivation to read nutrition information

At the 0.01 alpha level, there was no significant effect of motivation to read nutrition information on breakfast cereal purchase intention.

Table 54: Impact of claim and motivation to read nutrition information on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$F(1, 1052)=4.731$	0.030
Motivation to read nutrition information	$F(2, 1052)=2.732$	0.066
Claim* Motivation to read nutrition information	$F(2, 1052)=0.111$	0.895

Note: Homogeneity of variance was violated (Levene's $F(7,902)=2.879$, $p=0.006$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and breakfast cereal purchase intention.

Table 55: Impact of claim and main grocery shopper on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$\underline{F}(1, 1056)=3.062$	0.080
Main grocery shopper	$\underline{F}(1, 1056)=0.047$	0.828
Claim* Main grocery shopper	$\underline{F}(1, 1056)=0.043$	0.836

Note: Homogeneity of variance was violated (Levene's $\underline{F}(3,1056)=3.143$, $p=0.024$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Health concerns

Health concerns were significantly associated with breakfast cereal purchase intention ($p=0.029$). In addition, the main effect of claim remained significant ($p=0.001$), and there was a significant interaction effect of claim \times health concerns ($p=0.021$). Post hoc comparisons failed to yield significant differences between levels of health concern, possibly due to low cell sizes reported for 'none' and 'general only' health concerns.

Table 56: Impact of claim and health concerns on breakfast cereal purchase intention

Variable	F(df)	p
Claim	$\underline{F}(1, 1052)=10.658$	0.001
Health concerns	$\underline{F}(3, 1052)=3.007$	0.029
Claim*health concerns	$\underline{F}(3, 1052)=3.251$	0.021

Table 57: Mean breakfast cereal purchase intention, by health concerns and claim

		Mean	SD
No claim	None	4.00	1.95
	General only	5.83	1.33
	Specific only	3.42	1.60
	Both general and specific	3.87	1.70
	Total	3.82	1.72
Claim	None	3.28	1.73
	General only	3.42	1.89
	Specific only	3.49	1.73
	Both general and specific	3.55	1.80
	Total	3.51	1.78
Total	None	3.45	1.79
	General only	3.79	2.00
	Specific only	3.47	1.71
	Both general and specific	3.62	1.78
	Total	3.57	1.77

Note: The mean for No claim, general health concerns only was generated from a sample of only 5, so should be interpreted with caution

Nutrition knowledge

The main effect of claim remained ($p=0.040$) when nutrition knowledge was included in the model. Nutrition knowledge was also significantly associated with breakfast cereal purchase intention ($p<0.001$), with respondents who had low nutrition knowledge had greater breakfast cereal purchase intention than respondents with high nutrition knowledge.

Table 58: Impact of claim and nutrition knowledge on breakfast cereal purchase intention

Variable	F(df)	p
Claim	F(1, 1048)=4.212	0.040
Nutrition knowledge	F(1, 1048)=33.388	<0.001
Claim* Nutrition knowledge	F(1, 1048)=1.391	0.238

Table 59: Mean breakfast cereal purchase intention, by nutrition knowledge and claim

	Mean	SD
Low (less than 75% correct)	3.97	1.77
High (more than 75% correct)	3.28	1.65
No Claim	3.75	1.65
Claim	3.49	1.75

4.3 Effect of a nutrition content claim on general product nutrition attitude (overall)

There was no effect of a nutrition content claim on general product nutrition attitude ($F(1,1029) = 0.065$, $p = 0.798$, n.s.)

4.3.1 Effect of a nutrition content claim on a breakfast cereal package on general product nutrition attitude

Similarly, there was no effect of a nutrition content claim on the general attitude to breakfast cereal nutrition ($F(1,1038) = 0.101$, $p = 0.751$, n.s.).

4.3.2 Effect of a nutrition content claim on a sweet biscuit package on general product nutrition attitude

Likewise, respondents who received nutrition content claims on sweet biscuit packaging did not differ in their general nutrition attitude of sweet biscuits, compared to those who received no claim packaging ($F(1,1037) = 0.512$, $p = 0.474$, n.s.)

Table 60: Mean general product nutrition attitude for control and experimental groups

	M (SD)	
	Treatment (claim)	Control (no claim)
Overall	4.45 (1.18)	4.48 (1.21)
Breakfast cereal stimuli only	4.64 (1.29)	4.61 (1.35)
Sweet biscuit stimuli only	4.27 (1.39)	4.34 (1.34)

4.3.3 Additional exploratory analyses

Although claim was not significantly associated with general nutrition attitude, further exploratory analyses were conducted in an effort to identify any additional differences across the dependent variable. The series of independent variables were added to the ANOVA model which included Claim. A summary of these ANOVAs is show in Table 61, with the complete results listed in Appendix B.

Table 61: Significant associations between independent variables and general nutrition attitude

Independent variable	Description of finding
Age	Older > Middle; Older > Younger
Income	4 th quartile < 1 st quartile; 4 th < 2 nd ; 3 rd < 1 st
Education	Secondary > Higher than secondary
Dependents	None > Dependents
Ethnicity	Indigenous > Non-Indigenous
Trust	High > Low; High > Medium; Medium > Low
Nutrition knowledge	Low > High; interaction effects of nutrition knowledge x claim

4.4 Effect of a nutrition content claim on specific product nutrition attitude (overall)

Specific product nutrition attitude did not vary between those exposed to the claim material, and those who were exposed to the no claim material ($F(1,943) = 0.377$, $p = 0.539$, n.s.).

4.4.1 Effect of a nutrition content claim on a breakfast cereal package on specific product nutrition attitude

There was no difference found for specific product nutrition attitude when respondents were referring to breakfast cereal stimuli ($F(1,984) = 0.007$, $p = 0.936$, n.s.).

4.4.2 Effect of a nutrition content claim on a sweet biscuit package on specific product nutrition attitude

Similarly, there was no reported difference in the impact of nutrition content claim on sweet biscuit package on specific product nutrition attitude ($F(1,972) = 1.463$, $p = 0.227$, n.s.).

Table 62: Mean specific product nutrition attitude for control and experimental groups

	M (SD)	
	Treatment (Claim)	Control (No claim)
Overall	4.78 (0.98)	4.73 (0.99)
Breakfast cereal stimuli only	4.64 (1.21)	4.65 (1.16)
Sweet biscuit stimuli only	4.91 (1.13)	4.80 (1.11)

4.4.3 Additional exploratory analyses

Although claim was not significantly associated with specific nutrition attitude, further exploratory analyses were conducted in an effort to identify additional differences in the dependent variable. The series of independent variables were added to the ANOVA model which included Claim. A summary of these ANOVAs is show in Table 63, with the complete results listed in Appendix B.

Table 63: Significant associations between independent variables and specific nutrition attitude

Independent variable	Description of finding
Age	Older > Middle
Income	1 st quartile > 4 th quartile; 1 st quartile > 3 rd quartile
Education	Secondary > Higher than secondary
Trust	High > Low; High > Medium; Medium > Low
Nutrition knowledge	Low > High

4.5 Effect of a nutrition content claim on perceived number of types of people who would benefit from eating the food product

The measure of perceived number of types of people who would benefit from eating the designated food product was the mean number of types of persons that the respondent indicated in the telephone interview, with possible scores ranging from 0 to 7. The Homogeneity of Variance assumption was violated (Levene's $F(1,1058)=4.248$, $p=0.040$) and as such the Welch statistic is more appropriate than the standard F statistic in oneway ANOVA. Overall, there was no effect of a nutrition content claim on perceived number of people who would benefit from eating the food product (Welch $(1,310) = 2.062$, $p = 0.152$, n.s.).

4.5.1 Effect of a nutrition content claim on a breakfast cereal package on perceived number of types of people who would benefit from eating the breakfast cereal

In terms of breakfast cereal packaging, there was again no effect of a nutrition content claim on perceived number of people who would benefit from eating the breakfast cereal ($F(1,1058) = 0.829$, $p = 0.363$, n.s.).

4.5.2 Effect of a nutrition content claim on a sweet biscuit package on perceived number of types of people who would benefit from eating the sweet biscuits

In terms of sweet biscuit packaging, there was again no effect of a nutrition content claim on perceived number of types of people who would benefit from eating the sweet biscuit product (Welch statistic $(1,310) = 2.581$, $p = 0.109$, n.s.).

Table 64: Mean perceived number of types of people who would benefit, for control and experimental groups

	M (SD)	
	Treatment (claim)	Control (no claim)
Overall	4.04 (2.02)	3.81 (2.14)
Breakfast cereal stimuli only	4.51 (2.30)	4.35 (2.33)
Sweet biscuit stimuli only	3.58 (2.38)	3.27 (2.51)

Note: Homogeneity of variance was violated (Levene's $F(1,1058)=5.551$, $p=0.019$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

4.5.3 Additional exploratory analyses

Although claim was not significantly associated with perceived number of types of people who would benefit from eating the product, further exploratory analyses were conducted in an effort to identify additional differences in the dependent variable. The series of independent variables were added to the ANOVA model which included Claim. A summary of these ANOVAs is show in Table 64, with the complete results listed in Appendix B.

Table 65: Significant associations between independent variables and perceived number of types of people who would benefit from eating the product

Independent variable	Description of finding
Gender	Male > Female
Income	1 st quartile > 4 th quartile; 1 st > 3 rd ; 2 nd > 4 th ; 2 nd > 3 rd
Country	New Zealand > Australia
Education	Secondary > Higher than secondary
Ethnicity	Indigenous > Non-Indigenous
Trust	High > Low; High > Medium; Medium > Low
Attention to healthy diet	CLAIM was significant – Claim > No claim
Motivation to read nutrition information	Low > High; Low > Medium
Health concerns	CLAIM was significant – Claim > No claim
Nutrition knowledge	Low > High

4.6 Effect of a nutrition content claim on perceived number of health benefits from eating the food product

Types of health benefits were assessed in terms of the mean number of health benefits reported by respondents in the telephone interview. Overall, there was no effect of a nutrition content claim on perceived number of health benefits from eating the food product ($F(1,1058) = 0.838, p = 0.360, \text{n.s.}$).

4.6.1 Effect of a nutrition content claim on a breakfast cereal package on perceived number of health benefits from eating the breakfast cereal

Homogeneity of variance was violated (Levene's $F(1,1058)=5.042, p=0.025$). Exposure to nutrition content claims on breakfast cereal packaging did not have an effect on the perceived number of health benefits derived from eating breakfast cereal (Welch-statistic $(1,306) = 0.451, p=0.502, \text{n.s.}$).

4.6.2 Effect of a nutrition content claim on a sweet biscuit package on perceived number of health benefits from eating the sweet biscuits

Exposure to nutrition content claims on sweet biscuit packaging did not have an effect on the perceived number of health benefits derived from eating sweet biscuits ($F(1,1058) = 0.895, p=0.344, \text{n.s.}$).

Table 66: Mean perceived number of health benefits, for control and experimental groups

	M (SD)	
	Treatment (claim)	Control (no claim)
Overall	4.15 (2.72)	4.33 (2.63)
Breakfast cereal stimuli only	5.00 (2.89)	4.84 (3.12)
Sweet biscuit stimuli only	3.66 (2.95)	3.45 (2.91)

^a Significant difference at $p < 0.05$

4.6.3 Additional exploratory analyses

Although claim was not significantly associated with perceived number of benefits from eating the product, further exploratory analyses were conducted in an effort to identify additional differences in the dependent variable. The series of independent variables were added to the ANOVA model which included Claim. A summary of these ANOVAs is shown in Table 67, with the complete results listed in Appendix B.

Table 67: Significant associations between independent variables and perceived number of health benefits from eating the product

Independent variable	Description of finding
Age	Older > Medium; Older > Younger
Gender	Male > Female
Income	1 st quartile > 4 th quartile; 1 st > 3 rd
Country	New Zealand > Australia
Education	Secondary > Higher than secondary
Dependents	None > Dependents
Ethnicity	Indigenous > Non-Indigenous
Trust	High > Low; High > Medium; Medium > Low
Nutrition knowledge	Low > High

4.7 Effect of different nutrition content claims on product evaluations

4.7.1 Effect of different claims on purchase intention

4.7.1.1 Breakfast cereal product

To assess any differences in the impact of nutrition content type claim in breakfast cereal purchase intention, a one-way ANOVA was performed, with post-hoc comparisons to identify where differences may exist (if at all). The results of this analysis indicated that there was no difference in nutrition content claim, in terms of purchase intention scores ($F(4,1047) = 1.906$, $p = 0.107$, n.s.).

Table 68: Mean score on purchase intention for breakfast cereal product by stimulus type

Claim type	M	SD
97% fat free	3.67	1.67
Increased fibre	3.41	1.76
Good source of fibre	3.38	1.73
Reduced sugar	3.49	1.82
No claim	3.75	1.65

4.7.1.2 Sweet biscuit product

There was no reported differences in sweet biscuit purchase intention according to the specific nutrition content claims featured on the sweet biscuit packaging ($F(4,1040) = 1.808$, $p = 0.125$, n.s.).

Table 69: Mean score on purchase intention for sweet biscuit product by stimulus type

Claim type	M	SD
Low in saturated fat	3.67	1.77
Reduced fat	3.84	1.79
Good source of fibre	3.77	1.75
No added sugar	4.08	1.78
No claim	3.99	1.78

4.7.2 Effect of different claims on general product nutrition attitude

4.7.2.1 Breakfast cereal product

The nature of the nutrition content claim did not impact respondent's general nutrition attitude, in terms of breakfast cereal packaging ($F(4,1035) = 1.395$, $p = 0.234$, n.s.).

Table 70: Mean score on general product nutrition attitude for breakfast cereal by stimulus type

Claim type	M	SD
97% fat free	4.58	1.25
Increased fibre	4.59	1.35
Good source of fibre	4.58	1.24
Reduced sugar	4.83	1.30
No claim	4.61	1.35

4.7.2.2 Sweet biscuit product

There was no difference in general nutrition attitude for the various nutrition content claims on sweet biscuit packaging ($F(4,1034) = 1.554$, $p = 0.185$, n.s.).

Table 71: Mean score on general product nutrition attitude for sweet biscuit by stimulus type

Claim type	M	SD
Low in saturated fat	4.09	1.44
Reduced fat	4.26	1.33
Good source of fibre	4.39	1.42
No added sugar	4.33	1.36
No claim	4.34	1.34

4.7.3 Effect of different claims on specific product nutrition attitude

4.7.3.1 Breakfast cereal product

There were no differences revealed between the various nutrition content claims of breakfast cereal packaging, in relation to specific product nutrition attitude of breakfast cereal ($F(4,981) = 0.997$, $p = 0.408$, n.s.).

Table 72: Mean score on specific product nutrition attitude for breakfast cereal by stimulus type

Claim type	M	SD
97% fat free	4.61	1.25
Increased fibre	4.53	1.24
Good source of fibre	4.65	1.18
Reduced sugar	4.76	1.15
No claim	4.64	1.16

4.7.3.2 Sweet biscuit product

There were no differences revealed between the various nutrition content claims of sweet biscuit packaging, in relation to specific product nutrition attitude of sweet biscuits ($F(4,969) = 1.667$, $p = 0.155$, n.s.).

Table 73: Mean score on specific product nutrition attitude for sweet biscuit by stimulus type

Claim type	M	SD
Low in saturated fat	4.77	1.17
Reduced fat	4.95	1.10
Good source of fibre	4.92	1.11
No added sugar	5.02	1.15
No claim	4.80	1.11

4.7.4 Effect of different claims on perceived number of types of people who benefit from eating product

4.7.4.1 Breakfast cereal product

There were no differences revealed between the various nutrition content claims of breakfast cereal packaging, in consideration of the perceived number of types of people who would benefit from eating the breakfast cereal product ($F(4,1055) = 0.788$, $p = 0.533$, n.s.).

Table 74: Mean score on perceptions of the types of people who may benefit from breakfast cereal by stimulus type

Claim type	M	SD
97% fat free	4.51	2.31
Increased fibre	4.31	2.32
Good source of fibre	4.58	2.22
Reduced sugar	4.63	2.37
No claim	4.35	2.33

4.7.4.2 Sweet biscuit product

There were no differences revealed between the various nutrition content claims of sweet biscuit packaging, in relation to the mean number of types of people who would benefit from eating sweet biscuits ($F(4,1055) = 1.372, p = 0.242, \text{n.s.}$).

Table 75: Mean score on perceptions of the types of people who may benefit from sweet biscuit by stimulus type

Claim type	M	SD
Low in saturated fat	3.49	2.33
Reduced fat	3.66	2.38
Good source of fibre	3.40	2.39
No added sugar	3.75	2.40
No claim	3.27	2.51

4.7.5 Effect of different claims on perceived number of health benefits from eating product

4.7.5.1 Breakfast cereal product

In terms of the perceived number of health benefits from eating breakfast cereal, there were no reported differences between the various nutrition content claims of breakfast cereal packaging, ($F(4,1055) = 1.162, p = 0.326, \text{n.s.}$).

Table 76: Mean score on perceived number of health benefits for breakfast cereal by stimulus type

Claim type	M	SD
97% fat free	4.92	2.74
Increased fibre	5.00	3.00
Good source of fibre	4.77	2.69
Reduced sugar	5.33	3.12
No claim	4.84	3.12

4.7.5.2 Sweet biscuit product

In terms of the perceived number of health benefits from eating sweet biscuits, there were no reported differences between the various nutrition content claims on the sweet biscuit packaging, ($F(4,1055) = 0.379$, $p = 0.824$, n.s.).

Table 77: Mean score on perceived number of health benefits for sweet biscuit by stimulus type

Claim type	M	SD
Low in saturated fat	3.54	2.89
Reduced fat	3.68	3.00
Good source of fibre	3.55	2.91
No added sugar	3.89	3.00
No claim	3.45	2.91

4.8 Evaluation of stimulus type on the perception of benefits

4.8.1 Perceived types of people who would benefit from eating the product, evaluated by stimulus type

A series of cross-tabulations, with chi-square statistical testing was conducted to determine if the presence of claim affect the types of people respondents perceived would benefit from eating the food product. Full statistical tables can be found in the Appendix A.

4.8.1.1 Breakfast cereal

Analyses revealed that a higher proportion of respondents who were exposed to the 97% Fat Free claim believed that persons trying to lose weight would benefit from eating the breakfast cereal, compared to those exposed to other claims (57.3%, $\chi^2(4)=14.312$, $p=0.006$). Additionally, respondents exposed to the 97% Fat Free (45.5%) and Reduced Sugar (47.4%) claims were more likely to perceive that persons with particular health problems would benefit from eating the breakfast cereal than respondents exposed to other claims or no claim ($\chi^2(4) =15.380$, $p=0.004$).

4.8.1.2 Sweet biscuits

In comparison to exposure to other/no claims, respondents exposed to the Reduced Fat (64.8%) and No Added Sugar (63.9%) claim were more likely to believe that women would gain benefits from eating sweet biscuits ($\chi^2(4)=21.176$, $p<0.001$). According to respondents exposed to No Added Sugar claim, pregnant women would benefit from eating sweet biscuits (55.2%; $\chi^2(4) =13.118$, $p=0.011$). Respondents exposed to Good Source of Fibre (56.3%) were less likely to perceive older people as beneficiaries of eating the sweet biscuit product ($\chi^2(4) =11.154$, $p=0.025$). In comparison to exposure to other/no claims, respondents exposed to Reduced Fat claim (32.3%) were more likely to perceive people trying to lose weight to benefit from eating sweet biscuits ($\chi^2(4)=19.640$, $p=0.001$). Additionally, respondents exposed to No Added Sugar (32.9%) were more likely than those exposed to Good Source of Fibre (23.3%) to perceive persons with particular health problems would benefit from eating sweet biscuits ($\chi^2(4)=13.412$, $p=0.009$).

4.8.2 Perceptions of types of health benefits from eating the product, evaluated by stimulus type

4.8.2.1 Breakfast cereal

Respondents exposed to Reduced Sugar claim (36.3%) were more likely to perceive that eating breakfast cereal would reduce the risk of diabetes than those exposed to other/no claims ($\chi^2(4)=24.432$, $p<0.001$). Exposure to 97% Fat Free (79.6%) and Increased Fibre (80.2%) was associated with greater perceptions of reducing fat intake by eating breakfast cereal, in comparison to Good Source of Fibre claim (71.1%; $\chi^2(4)=26.605$, $p<0.001$). Those exposed to Reduced Sugar breakfast cereal (51.0%) were more likely than those exposed to Good Source of Fibre breakfast cereal (29.9%) that eating the product would contribute to reducing sugar intake ($\chi^2(4)=46.132$, $p<0.001$). Conversely, respondents exposed to Good Source of Fibre (85.3%) perceived increasing fibre intake as a health benefit from consuming breakfast cereal more so than respondents exposed to Reduced Sugar claims (71.1%; $\chi^2(4)=24.452$, $p<0.001$).

4.8.2.2 Sweet biscuits

Respondents exposed to the No Added Sugar claim (42.0%) were more likely to perceive the health benefit eating sweet biscuits of reducing sugar intake than other/no claims ($\chi^2(4)=49.024$, $p<0.001$). Respondents exposed to No Added Sugar sweet biscuits (26.0%) perceived benefits of reducing the risk of diabetes more so than those exposed to Good Source of Fibre claim sweet biscuits (15.0%; $\chi^2(4)=17.459$, $p=0.002$). Exposure to Reduced Fat claim sweet biscuits (52.6%) resulted in greater belief in the product helping to reduce fat intake, in comparison to Good Source of Fibre claim exposure (38.8%; $\chi^2(4)=20.528$, $p<0.001$). Respondents exposed to Reduced Fat claim (25.6%) were more likely than those exposed to Low in Saturated Fat claim (15.3%) to perceive a health benefit of maintenance of healthy bones ($\chi^2(4)=12.745$, $p=0.013$). Those exposed to No Added Sugar claim (35.6%) were more likely than those exposed to Good Source of Fibre claim (27.3%) to believe that sweet biscuits would give assistance in heart health ($\chi^2(4)=14.701$, $p=0.005$).

4.9 Level of impact of claim presence, socio-demographic and cognitive and behavioural measures on product evaluations

Stepwise Multiple Linear Regression analysis was selected to investigate the level of impact of claim presence, socio-demographic and cognitive and behavioural measures on product evaluations, as this was an exploratory exercise. The Stepwise approach to Multiple Linear Regression was chosen because: there were many predictors to be entered into the model; this study was exploratory in nature; and there was little theoretical grounding guiding the choice of variables to be entered.

The stepwise approach will only include variables that make a significant contribution to explaining the variance in the evaluation measures (the dependent variable). Thus in the tables that follow for each regression model not all variables are reported as some are not significant contributors. In particular the presence or absence of a nutrition content claim was not a significant contributor in explaining variance in any of the regression models.

For inclusion in the Multiple Linear Regression models, some of the independent variables required manipulation to meet the assumptions of this form of analysis (see Table 77). Additional information is provided in the Technical Appendix.

Table 78: Independent variables entered into the multiple regression analysis

Variable	Type
Claim	Dichotomous categorical
Age group	Re-coded into 2 dummy variables with Older as reference
Gender	Dichotomous categorical
Household income	Re-coded into 4 dummy variables with 1 st Quartile as reference
Country of residence	Dichotomous categorical
Education level	Dichotomous categorical
Dependents	Dichotomous categorical
Ethnicity	Dichotomous categorical
Trust in nutritional label information	Mean (scale) score
Attention to healthy diet	Re-coded into 4 dummy variables with Low attention as reference
Motivation to read nutrition information	Mean (scale) score
Daily fruit and vegetable intake	Mean (scale) score
Health concerns	Re-coded into 3 dummy variables with None as reference
Main grocery shopper	Dichotomous categorical

4.9.1 How much impact does group assignment (exposure to claim), socio-demographic and cognitive and behavioural measures have on purchase intention?

A Stepwise Multiple Linear Regression was employed to identify the most parsimonious sets of predictors of purchase intention, using a comprehensive list of predictors (see Table 77). The analysis terminated after 8 steps, with 8 predictors extracted. The final level of the model, the multiple correlation coefficient ($R = 0.297$) was significantly different to zero ($F(8,853) = 10.332$, $p < 0.001$), and 8.8% of the variance in purchase intention was explained by the set of independent variables ($R^2 = 0.088$, Adjusted $R^2 = 0.080$).

Consistent with the previous ANOVAs the presence or absence of a nutrition content claim was not a significant contributor in explaining the variance in respondents' intention to purchase the product.

Table 79: Impact of variables on purchase intention

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Trust in nutritional label information	0.198	0.036	0.181	5.491	0.000	0.032
Income (\$100,001+)	-0.403	0.113	-0.119	-3.573	0.000	0.014
Age (18-34 years)	-0.524	0.124	-0.175	-4.223	0.000	0.019
Age (35-54 years)	-0.367	0.118	-0.128	-3.101	0.002	0.010
Attention to healthy diet (medium level)	0.447	0.131	0.153	3.412	0.001	0.013
Attention to healthy diet (high level)	0.272	0.127	0.095	2.151	0.032	0.005
Gender [#]	0.195	0.094	0.069	2.079	0.038	0.005
Ethnicity [#]	0.395	0.199	0.065	1.983	0.048	0.004

[#] Categorical variables

4.9.2 How much impact does group assignment (exposure to claim), socio-demographic and cognitive and behavioural measures have on general product nutrition attitude?

Stepwise Multiple Linear Regression analysis was also conducted to determine the key predictors of general nutrition attitude. Using the same independent variables, the model terminated after 8 iterations, with 8 variables remaining significant – Trust in nutritional label information, education, income (\$100,001+), motivation to read nutrition information, daily serves of fruit and vegetables, dependents, ethnicity, and income ((\$70,001-\$100,000)). The model itself was significant ($R=0.369$; $F(8,847) = 16.662$, $p<.001$), and the variables accounted for 13.6% of the variance in general nutrition attitude ($R^2 = 0.136$, Adjusted $R^2 = 0.128$).

Consistent with the previous ANOVAs the presence or absence of a nutrition content claim was not a significant contributor in explaining the variance in respondents' general product nutrition attitude.

Table 80: Impact of variables on general product nutrition attitude

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Trust in nutritional label information	0.205	0.029	0.228	6.960	<0.001	0.054
Education [#]	-0.240	0.077	-0.104	-3.121	0.002	0.011
Income (\$100,001 +)	-0.431	0.095	-0.157	-4.537	0.000	0.024
Motivation to read nutrition information	-0.070	0.026	-0.090	-2.692	0.007	0.008
Daily serves of fruit and vegetables	-0.062	0.020	-0.105	-3.159	0.002	0.012
Dependents [#]	-0.205	0.076	-0.088	-2.682	0.007	0.008
Ethnicity [#]	0.401	0.162	0.080	2.477	0.013	0.007
Income (\$70,001-\$100,000)	-0.212	0.095	-0.076	-2.237	0.026	0.006

[#] Categorical variables

4.9.3 How much impact do group assignment (exposure to claim), socio-demographic and personal variables have on specific product nutrition attitude?

Stepwise Multiple Linear Regression analysis, with specific nutrition attitude as the dependent variable, was performed. The analysis terminated after 4 steps, with 4 variables remaining significant - trust in nutritional label information, education, age group (35-54 years), and income (\$100,000+). The multiple correlation coefficient ($R=0.289$) was significant ($F(4,787) = 17.900$, $p<.001$), and the variables accounted for 8.3% of the variance in general nutrition attitude ($R^2 = 0.083$, Adjusted $R^2 = 0.079$).

Consistent with the previous ANOVAs the presence or absence of a nutrition content claim was not a significant contributor in explaining the variance in respondents' specific product nutrition attitude.

Table 81: Impact of variables on specific product nutrition attitude

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Trust in nutritional label information	0.169	0.026	0.224	6.522	<0.001	0.051
Education [#]	-0.176	0.067	-0.092	-2.625	0.009	0.009
Age (35-54 years)	-0.186	0.067	-0.096	-2.791	0.005	0.010
Income (\$100,001 +)	-0.157	0.079	-0.069	-1.979	0.048	0.005

[#] Categorical variables

4.9.4 How much impact does group assignment (exposure to claim), socio-demographic and cognitive and behavioural measures have on the perceived number of types of people who would benefit from eating the product?

In terms of perceived number of types of people who would benefit from eating the product, the Stepwise Multiple Linear Regression model terminated after 8 steps, with 8 variables significant – Trust in nutritional label information, motivation to read nutrition information, education, ethnicity, daily serves of fruit and vegetables, income (\$100,001+ & \$70,001-\$100,000), and gender. The multiple correlation coefficient was significant after 8 steps ($R=0.433$; $F(8,864) = 24.951$, $p<.001$), and the predictors accounted for 18.8% of the variance in perceived number of people who would benefit from eating the product ($R^2 = 0.188$, Adjusted $R^2 = 0.180$).

Consistent with the previous ANOVAs the presence or absence of a nutrition content claim was not a significant contributor in explaining the variance in the number of types of people who would benefit from eating the product.

Table 82: Impact of variables on perceived number of people who would benefit from eating product

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Trust in nutritional label information	0.433	0.050	0.276	8.742	0.000	0.081
Motivation to read nutrition information	-0.188	0.044	-0.140	-4.266	0.000	0.021
Education [#]	-0.486	0.131	-0.119	-3.713	0.000	0.16
Ethnicity [#]	1.239	0.271	0.141	4.578	0.000	0.024
Daily serves of fruit and vegetables	-0.106	0.034	-0.101	-3.133	0.002	0.011
Income (\$100,001 +)	-0.675	0.162	-0.137	-4.175	0.000	0.020
Income (\$70,001-\$100,000)	-0.503	0.159	-0.102	-3.161	0.002	0.011
Gender [#]	-0.391	0.131	-0.096	-2.980	0.003	0.010

[#] Categorical variables

4.9.5 How much impact does group assignment (exposure to claim), socio-demographic and cognitive and behavioural measures have on perceived number of health benefits from eating the product?

Perceptions of the types of health benefits from eating the products were assessed, with 8 predictors significant after 10 steps of the Stepwise Linear Multiple Regression model. Significant predictors were: Trust in nutritional label information, motivation to read nutrition information, education, ethnicity, daily serves of fruit & vegetables, income (\$100,001+ and \$70,001-\$100,000), and gender. The multiple correlation coefficient ($R=0.408$) was significant ($F(8,864) = 21.522, p<.001$), while the final model explained 16.6% of the variance in perceptions of the types of health benefits from eating the product ($R^2 = 0.166, \text{Adjusted } R^2 = 0.158$).

Consistent with the previous ANOVAs the presence or absence of a nutrition content claim was not a significant contributor in explaining the variance in the number of perceived health benefits from eating the product.

Table 83: Impact of variables on perceived number of health benefits from eating product

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Trust in nutritional label information	0.462	0.064	0.228	7.267	0.000	0.058
Education [#]	-0.672	0.171	-0.127	-3.929	0.000	0.017
Gender [#]	-0.846	0.169	-0.160	-5.013	0.000	0.028
Ethnicity [#]	1.735	0.357	0.153	4.864	0.000	0.027
Income (\$100,001+)	-0.486	0.203	-0.077	-2.395	0.017	0.007
Daily serves of fruit and vegetables	-0.162	0.044	-0.119	-3.678	0.000	0.015
Age group (18-34 years)	-1.051	0.223	-0.188	-4.702	0.000	0.025
Age group (35-54 years)	-0.891	0.210	-0.166	-4.236	0.000	0.020

[#] Categorical variables

4.10 Factor Analysis

4.10.1 What are the underlying food consumption motivation factors?

A Principal Components Analysis followed by a varimax extraction, was conducted on the 18 items pertaining to consumer motivation. The decision to run this factor analysis was justified by Bartlett's Test of Sphericity being highly significant ($\chi^2 = 5373.080$, $p < .001$), and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was greater than 0.60. Six components, with eigenvalues greater than one were extracted, accounting for 63.71% of the total variance.

The first component extracted (*Health related issues*) accounted for 25.70% of the variance. The item with the largest loading was 'Keeps me healthy', with additional variables loading on this factor included in Table X. The second component (*Coping and familiarity*) accounted for an additional 11.86% of the variance. Table 83 shows the breakdown of components, by items and includes the unique percentage of variance explained by that component.

Table 84: Components extracted from Principal Components Analysis of Consumption Motivations

Component	Items	Unique Variance	Cronbach's coefficient
Health related issues	Keeps me healthy Contains a lot of vitamins and minerals Is low in calories Helps me control my weight Contains natural ingredients Contains no additives	25.70%	0.786
Coping and familiarity	Is familiar Is what I usually eat Helps me to cope with life Helps me cope with stress	11.86%	0.652
Ease in preparation	Can be cooked very simply Is easy to prepare	7.26%	0.803
Country originated from	Has the country of origin been clearly marked Comes from a country I approve of politically	6.57%	0.648
Cost friendliness	Is not expensive Is cheap	6.24%	0.783
Appearance	Smells nice Looks nice	6.10%	0.603

4.11 Level of impact of food consumption motivation factors on product evaluations

4.11.1 How much impact do food consumption motivation factors have on purchase intention?

Stepwise Multiple Linear Regression analysis, with purchase intention as the dependent variable, and the six factors revealed from the principal components analysis as the predictors was conducted. The analysis terminated after 2 steps, with 2 predictors remaining – Coping & familiarity, and Cost friendliness. The multiple correlation coefficient ($R=0.219$) was significant ($F(2,1036) = 26.181$, $p<.001$), and the model explained 4.8% of the variance in purchase intention ($R^2 = 0.048$, Adjusted $R^2 = 0.046$).

Table 85: Impact of variables on purchase intention

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Coping and familiarity	0.343	0.066	0.163	5.232	0.000	0.026
Cost friendliness	0.202	0.056	0.122	3.598	0.000	0.012

4.11.2 How much impact do food consumption motivation factors have on general product nutrition attitude?

Stepwise Multiple Linear Regression analysis, with general product nutrition as the dependent variable, and the six factors revealed from the principal components analysis as the predictors was conducted. The analysis terminated after 2 steps, with 2 predictors remaining – Coping & familiarity, and Ease in preparation. The multiple correlation coefficient ($R=0.230$) was significant ($F(2,1027) = 28.717$, $p<.001$), and the model explained 5.3% of the variance in purchase intention ($R^2 = 0.053$, Adjusted $R^2 = 0.051$).

Table 86: Impact of variables on general product nutrition attitude

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Coping and familiarity	0.286	0.055	0.165	5.165	0.000	0.025
Ease in preparation	0.179	0.049	0.116	3.623	0.000	0.013

4.11.3 How much impact do food consumption motivation factors have on specific product nutrition attitude?

The contribution of food consumption motivation factors on predicting specific product nutrition attitude was investigated using Stepwise Multiple Linear Regression. The model finalised after 3 iterations, with 3 predictors remaining – Coping & familiarity, Cost friendliness, and Ease in preparation. The model was significant ($R=0.200$; $F(3,941) = 13.083$, $p<.001$), and the model explained 4.0% of the variance in purchase intention ($R^2 = 0.040$, Adjusted $R^2 = 0.037$).

Table 87: Impact of variables on specific product nutrition attitude

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Coping and familiarity	0.150	0.050	0.102	3.005	0.003	0.009
Cost friendliness	0.117	0.042	0.095	2.793	0.005	0.008
Ease in preparation	0.105	0.045	0.081	2.323	0.020	0.005

4.11.4 How much impact do food consumption motivation factors have on perceived number of types of people who would benefit from eating food product?

The contribution of food consumption motivation factors on predicting perceived number of types of people who would benefit from eating food product was investigated using Stepwise Multiple Linear Regression. The model finalised after 3 iterations, with 3 predictors remaining – Coping & familiarity, Health related issues, and Ease in preparation. The model was significant ($R=0.246$; $F(3,1056) = 22.635$, $p<.001$), and the model explained 6.0% of the variance in purchase intention ($R^2 = 0.060$, Adjusted $R^2 = 0.058$).

Table 88: Impact of variables on perceived number of people who would benefit

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Coping and familiarity	0.711	0.103	0.238	6.868	0.000	0.043
Health related issues	-0.470	0.121	-0.132	-3.883	0.000	0.013
Ease in preparation	0.241	0.084	0.090	2.864	0.004	0.007

4.11.5 How much impact do food consumption motivation factors have on perceived number of health benefits from eating food product?

The contribution of food consumption motivation factors on predicting perceived number of health benefits from eating food product was investigated using Stepwise Multiple Linear Regression. The model finalised after 2 iterations, with 2 predictors remaining – Coping & familiarity and Ease in preparation. The model was significant ($R=0.248$; $F(2,1057) = 34.491$, $p<.001$), and the model explained 6.1% of the variance in purchase intention ($R^2 = 0.061$, Adjusted $R^2 = 0.059$).

Table 89: Impact of variables on perceived number of health benefits

Predictor/independent variables	B	S.E. (B)	β	t	p	sr ²
Coping and familiarity	0.776	0.121	0.202	6.432	0.000	0.038
Ease in preparation	0.324	0.108	0.094	3.011	0.003	0.008

5. SUMMARY OF KEY FINDINGS

The analyses tested several hypotheses about the effect of the presence of nutrition content claims on product packaging, on consumers' purchase intentions, product nutrition attitudes, and perceptions of number of health benefits and beneficiaries of eating these products. In terms of the specific hypotheses:

1. Exposure to a product with a nutrition content claim did not yield higher purchase intentions of consumers' compared with a product with no claim at all.
2. Exposure to a product with a nutrition content claim did not yield higher perceptions of nutritional quality (compared with other food types), compared with a product with no claim at all.
3. Exposure to a product with a nutrition content claim did not yield higher perceptions of nutritional quality (compared with other breakfast cereals/sweet biscuits), compared with a product with no claim at all.
4. Exposure to a product with a nutrition content claim did not cause consumers to perceive a greater number of types of people would benefit from eating the product, compared with a product with no claim at all.
5. Exposure to a product with a nutrition content claim did not cause consumers to attribute to it a greater number of perceived health benefits, compared with a product with no claim at all.
6. The five specific claim conditions did not have different effects on consumers' purchase intentions or product evaluations.

Overall, the key findings indicated:

- Exposure to nutrition content claim overall, did not influence respondents' stated intention to purchase the product.
 - However, when product type was taken into account, respondents exposed to a nutrition content claim reported lower intention to purchase the product than those who were not exposed to the claim.
- There were significant differences in reported purchase intentions across different sub-groups of respondents. In some cases there were interactions between particular groups and the effect of a nutrition content claim. However no sub-group reported increased intention to purchase a product when a nutrition content claim was present. On the whole subgroup differences were not related to the presence/absence of a claim.
 - Older respondents were more likely to report higher purchase intention than younger and middle-aged respondents.

- Respondents earning \$0-\$40,000, and those earning \$40,001-\$70,000 were more likely to report higher purchase intention than those earning \$100,000 or greater per year. Additionally, respondents with a household income of less than \$40,000 were more likely to report higher purchase intentions than respondents with household income of \$70,000-\$100,000.
- Respondents with a secondary education were more likely to report higher purchase intentions than those with formal education attainment at levels higher than secondary education.
- As respondents who were exposed to no nutrition content claims had greater purchase intention for breakfast cereal, additional investigations revealed that the following variables were significantly associated with breakfast cereal purchase intention:
 - Higher income, secondary education, high trust in nutritional label information, moderate attention to healthy diet, and low nutrition knowledge
- Evaluations of breakfast cereals tended to be stronger than sweet biscuits, in terms of general nutrition attitude, perceived number of people who would benefit from eating the product, and the perceived number of health benefits. This suggests that respondents identified nutritional differences between the products, and lends weight to the selection of the products chosen for this investigation, as well as supporting the use of the scales.
- Respondents reported using Nutrition Information Panels (NIP), general knowledge and ingredient lists in making their evaluations on products, with 55% citing nutrition content claim as relevant.
- The type of nutrition content claim (e.g. 97% Fat free, Low is saturated fat, etc) had no impact on the respondents purchase intention, nutritional attitudes, perceived number of benefits, or perceived number of types of beneficiaries of eating the products.
- Stepwise Multiple Linear Regressions revealed multiple significant predictors (Trust in nutritional label information, Income (\$100,001+), Age (18-34 years & 35-54 years), Attention to healthy diet (medium and high levels), Gender, and Ethnicity) for purchase intention accounting for 8.8% of the variance in the model
- For general nutrition attitude, significant multivariate predictors were: Trust in nutritional label information, Education, Income (\$100,001+), Motivation to read nutrition information, Daily fruit and vegetable intake, Dependents, Ethnicity, and

Income (\$70,001-\$100,000). This explained 13.6% of the variance in general nutrition attitude

- For specific nutrition attitude, significant multivariate predictors were: Trust in nutritional label information, Education, Age (35-54 years), and Income (\$100,001+). This explained 8.3% of the variance in general nutrition attitude
- Perceptions of the number of people who would benefit from eating the product was significantly predicted by: Trust in nutritional label information, Motivation to read nutrition information, Education, Ethnicity, Daily fruit and vegetable intake, Income (\$100,001+ & \$70,001-\$100,000), and Gender. This explained 18.8% of the variance in general nutrition attitude
- Perceptions of the number of health benefits attributed to eating the product were significantly explained (16.6% of the variance) by: Trust in nutritional label information, Education, Gender, Ethnicity, Income (\$100,001+), Daily fruit and vegetable intake, and Age (18-34 years & 35-54 years).
- A Principal Components Analysis was conducted to investigate the potential factors associated with food consumption motivation. Results showed that the 18-items loaded on to six factors: Health related issues, Coping and familiarity, Ease in preparation, Country originated from, Cost friendliness, and Appearance
- In terms of impact of food consumption motivation factors in predicting purchase intention, general and specific nutrition attitudes, and beneficiaries and benefits from eating the product, the models only explained minimal amounts of the variance for respective dependent variables.
- Overall, exposure to a nutrition content claim on a 3D mock-up package of a breakfast cereal and sweet biscuit product did not enhance consumers' product evaluations or purchase intentions more than a product with no nutrition content claim. Multivariate analyses revealed that other factors (i.e. socio-demographic, cognitive and/or behavioural) played more important roles in the decision making process of respondents, and these were not related to the presence or absence of a nutrition content claim.
- While the study sought to deliver realistic stimuli to respondents, the study could not approximate a realistic shopping environment. Accordingly there will be limitations in applying the findings to a shopping environment. These include the extent to which the questionnaire has prompted respondents to give greater consideration to on-pack information than they would in a normal shopping

situation. While respondents were not directed to study the on-pack information in detail the questionnaire exchange with an interviewer may have prompted them to give more attention to the NIP and this may moderate some product evaluations. FSANZ has commissioned a study exploring the effect of nutrition content claims in shopping environments to assist in applying the experimental findings to real-world shopping environments.

6. APPENDIX A: EXTRA TABLES

Table 90: Actual cell sizes achieved

	AUSTRALIA		NEW ZEALAND		TOTAL
	Female	Male	Female	Male	
Breakfast cereal Treatment Group 1 (97% fat free)			Final number recruited = 212 (95.4% of target)		
18-34	23	22	12	10	67
35-54	27	30	11	14	82
55+	22	23	9	9	63
Breakfast cereal Treatment Group 2 (Increased fibre)			Final number recruited = 208 (94.5% of target)		
18-34	24	24	9	13	70
35-54	30	25	10	13	78
55+	23	20	7	10	60
Breakfast cereal Treatment Group 3 (Good source of fibre)			Final number recruited = 222 (101% of target)		
18-34	26	26	10	11	73
35-54	30	30	13	13	86
55+	26	20	9	8	63
Breakfast cereal Treatment Group 4 (Reduced sugar)			Final number recruited = 207 (94.1% of target)		
18-34	22	22	11	11	66
35-54	28	26	12	14	80
55+	22	21	9	9	61
Breakfast cereal Control Group (Absence of nutrition content claim)			Final number recruited = 211 (95.9% of target)		
18-34	23	24	9	10	66
35-54	28	27	10	15	80
55+	25	21	9	10	65
Sweet biscuit Treatment Group 1 (Low in saturated fat)			Final number recruited = 211 (95.9% of target)		
18-34	24	21	10	11	66
35-54	31	29	12	15	87
55+	24	19	8	7	58
Sweet biscuit Treatment Group 2 (Reduced fat)			Final number recruited = 219 (99.5% of target)		
18-34	26	27	9	10	72
35-54	29	27	11	9	76
55+	27	25	8	11	71
Sweet biscuit Treatment Group 3 (Good source of fibre)			Final number recruited = 209 (95% of target)		
18-34	20	23	11	14	68
35-54	28	24	11	16	79
55+	23	21	7	11	62
Sweet biscuit Treatment Group 4 (No added sugar)			Final number recruited = 210 (95.5% of target)		
18-34	25	23	12	10	70
35-54	27	31	12	14	84
55+	19	19	11	7	56
Sweet biscuit Control Group (Absence of nutrition content claim)			Final number recruited = 211 (95.9% of target)		
18-34	23	24	9	10	66
35-54	28	27	10	15	80
55+	25	21	9	10	65

Table 91: Normality and skewness of dependent variables

Dependent variable	Kolmogorov-Smirnov			Skewness
	Statistic	df	sig	
Purchase intention	0.085	925	<0.001	0.030
General nutrition attitude	0.076	925	<0.001	-0.312
Specific nutrition attitude	0.070	925	<0.001	0.282
Who would benefit from eating the product	0.115	925	<0.001	-0.432
What types of benefits from eating the product	0.090	925	<0.001	0.514

Table 92: Would women benefit from eating the product, by stimulus type

	Women	Not Women
Breakfast Cereal		
97% Fat Free	73.1	26.9
Increased Fibre	71.6	28.4
Good Source of Fibre	75.7	24.3
Reduced Sugar	78.3	21.7
No claim	69.7	30.3
Statistic: $\chi^2(4) = 4.931$, $p = 0.294$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	56.9	43.1
Reduced fat	63.5	36.5
Good source of fibre	60.8	39.2
No added sugar	64.3	35.7
No claim	54.5	45.5
Statistic: $\chi^2(4) = 6.274$, $p=0.180$, <u>n.s.</u>		

Table 93: Would men benefit from eating the product, by stimulus type

	Men	Not Men
Breakfast Cereal		
97% Fat Free	74.5	25.5
Increased Fibre	71.6	28.4
Good Source of Fibre	76.6	23.4
Reduced Sugar	75.4	24.6
No claim	73.9	26.1
Statistic: $\chi^2(4) = 1.515$, $p = 0.824$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	59.7	40.3
Reduced fat	64.4	35.6
Good source of fibre	64.1	35.9
No added sugar	63.8	36.2
No claim	59.2	40.8
Statistic: $\chi^2(4) = 2.340$, $p = 0.673$, <u>n.s.</u>		

Table 94: Would children benefit from eating the product, by stimulus type

	Children	Not Children
Breakfast Cereal		
97% Fat Free	68.4	31.6
Increased Fibre	72.6	27.4
Good Source of Fibre	75.2	24.8
Reduced Sugar	72.9	27.1
No claim	72.4	27.6
Statistic: $\chi^2(4) = 2.620$, $p = 0.623$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	62.6	37.4
Reduced fat	62.1	37.9
Good source of fibre	62.7	37.3
No added sugar	67.1	32.9
No claim	59.7	40.3
Statistic: $\chi^2(4) = 2.607$, $p = 0.625$, <u>n.s.</u>		

Table 95: Would pregnant women benefit from eating the product, by stimulus type

	Pregnant women	Not Pregnant women
Breakfast Cereal		
97% Fat Free	57.5	42.5
Increased Fibre	57.2	42.8
Good Source of Fibre	62.2	37.8
Reduced Sugar	59.4	40.6
No claim	57.3	42.7
Statistic: $\chi^2(4) = 1.606$, $p = 0.808$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	49.8	50.2
Reduced fat	49.9	50.2
Good source of fibre	47.8	52.2
No added sugar	55.2	44.8
No claim	47.4	52.6
Statistic: $\chi^2(4) = 3.275$, $p = 0.513$, <u>n.s.</u>		

Table 96: Would older people benefit from eating the product, by stimulus type

	Older people	Not older people
Breakfast Cereal		
97% Fat Free	74.1	25.9
Increased Fibre	73.6	26.4
Good Source of Fibre	75.2	24.8
Reduced Sugar	71.5	28.5
No claim	72.5	27.5
Statistic: $\chi^2(4) = 0.897$, $p = 0.925$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	66.8	33.2
Reduced fat	64.8	35.2
Good source of fibre	59.3	40.7
No added sugar	64.8	35.2
No claim	58.3	41.7
Statistic: $\chi^2(4) = 5.112$, $p = 0.276$, <u>n.s.</u>		

Table 97: Would people trying to lose weight benefit from eating the product, by stimulus type

	People losing weight	Not People losing weight
Breakfast Cereal		
97% Fat Free	59.0	41.0
Increased Fibre	46.6	53.4
Good Source of Fibre	50.5	49.5
Reduced Sugar	55.6	44.4
No claim	50.2	49.8
Statistic: $\chi^2(4) = 7.991$, $p = 0.092$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	24.2	75.8
Reduced fat	31.5	68.5
Good source of fibre	20.1	79.9
No added sugar	28.1	71.9
No claim	22.7	77.3
Statistic: $\chi^2(4) = 9.175$, $p = 0.057$, <u>n.s.</u>		

Table 98: Would people with particular health problems benefit from eating the product, by stimulus type

	People with health problems	Not people with health problems
Breakfast Cereal		
97% Fat Free	44.8	55.2
Increased Fibre	37.5	62.5
Good Source of Fibre	42.3	57.7
Reduced Sugar	49.8	50.2
No claim	38.4	61.6
Statistic: $\chi^2(4) = 8.512$, $p = 0.075$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	29.4	70.6
Reduced fat	29.7	70.3
Good source of fibre	25.4	74.6
No added sugar	31.9	68.1
No claim	25.1	74.9
Statistic: $\chi^2(4) = 3.616$, $p = 0.460$, <u>n.s.</u>		

Table 99: Maintenance of healthy bones from eating the product, by stimulus type

	Maintain healthy bones	Not maintain healthy bones
Breakfast Cereal		
97% Fat Free	37.7	62.3
Increased Fibre	33.2	66.8
Good Source of Fibre	32.0	68.0
Reduced Sugar	39.1	60.9
No claim	36.5	63.5
Statistic: $\chi^2(4) = 3.418$, $p = 0.490$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	16.1	83.9
Reduced fat	24.7	75.3
Good source of fibre	23.0	77.0
No added sugar	22.4	77.6
No claim	23.2	76.8
Statistic: $\chi^2(4) = 5.489$, $p = 0.241$, <u>n.s.</u>		

Table 100: Reduced risk of heart disease from eating the product, by stimulus type

	Reduced risk of heart disease	Not reduced risk of heart disease
Breakfast Cereal		
97% Fat Free	40.6	59.4
Increased Fibre	43.3	56.7
Good Source of Fibre	42.3	57.7
Reduced Sugar	45.9	54.1
No claim	41.7	58.3
Statistic: $\chi^2(4) = 1.381$, $p = 0.847$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	26.5	73.5
Reduced fat	25.6	74.4
Good source of fibre	25.8	74.2
No added sugar	28.6	71.4
No claim	20.9	79.1
Statistic: $\chi^2(4) = 3.577$, $p = 0.466$, <u>n.s.</u>		

Table 101: Reduced risk of cancer from eating the product, by stimulus type

	Reduced risk of cancer	Not reduced risk of cancer
Breakfast Cereal		
97% Fat Free	20.3	79.7
Increased Fibre	21.2	78.8
Good Source of Fibre	18.5	81.5
Reduced Sugar	19.3	80.7
No claim	19.4	80.6
Statistic: $\chi^2(4) = 0.564$, $p = 0.967$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	15.2	84.8
Reduced fat	16.9	83.1
Good source of fibre	13.4	86.6
No added sugar	12.9	87.1
No claim	14.2	85.8
Statistic: $\chi^2(4) = 1.761$, $p = 0.780$, <u>n.s.</u>		

Table 102: Assistance in heart health from eating the product, by stimulus type

	Assistance in heart health	Not assistance in heart health
Breakfast Cereal		
97% Fat Free	47.2	52.8
Increased Fibre	46.6	53.4
Good Source of Fibre	45.9	54.1
Reduced Sugar	51.2	48.8
No claim	48.3	51.7
Statistic: $\chi^2(4) = 1.440$, $p = 0.837$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	34.1	65.9
Reduced fat	33.8	66.2
Good source of fibre	28.2	71.8
No added sugar	34.3	65.7
No claim	26.5	73.5
Statistic: $\chi^2(4) = 5.406$, $p = 0.248$, <u>n.s.</u>		

Table 103: Reduced risk of contracting colds or flu from eating the product, by stimulus type

	Reduced risk of cold or flu	Not reduced risk of cold or flu
Breakfast Cereal		
97% Fat Free	10.8	89.2
Increased Fibre	13.0	87.0
Good Source of Fibre	8.1	91.9
Reduced Sugar	15.9	84.1
No claim	9.0	91.0
Statistic: $\chi^2(4) = 8.431$, $p = 0.077$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	6.6	93.4
Reduced fat	9.1	90.9
Good source of fibre	9.6	90.4
No added sugar	8.1	91.9
No claim	12.8	87.2
Statistic: $\chi^2(4) = 5.245$, $p = 0.263$, <u>n.s.</u>		

Table 104: Reduced risk of diabetes from eating the product, by stimulus type

	Reduced risk of diabetes	Not reduced risk of diabetes
Breakfast Cereal		
97% Fat Free	23.1	76.9
Increased Fibre	24.0	76.0
Good Source of Fibre	25.2	74.8
Reduced Sugar	37.7	62.3
No claim	26.1	73.9
Statistic: $\chi^2(4) = 14.906, p = 0.005$		
Sweet Biscuits		
Low in saturated fat	20.4	79.6
Reduced fat	20.5	79.5
Good source of fibre	14.8	85.2
No added sugar	27.1	72.9
No claim	16.1	83.9
Statistic: $\chi^2(4) = 12.300, p = 0.015$		

Table 105: Reduced fat intake from eating the product, by stimulus type

	Reduced fat intake	Not reduced fat intake
Breakfast Cereal		
97% Fat Free	80.7	19.3
Increased Fibre	80.8	19.2
Good Source of Fibre	73.0	27.0
Reduced Sugar	77.3	22.7
No claim	69.7	30.3
Statistic: $\chi^2(4) = 11.104, p = 0.025$		
Sweet Biscuits		
Low in saturated fat	45.0	55.0
Reduced fat	53.0	47.0
Good source of fibre	41.1	58.9
No added sugar	45.2	54.8
No claim	41.2	58.8
Statistic: $\chi^2(4) = 8.064, p=0.089, n.s.$		

Table 106: Reduced sugar intake from eating the product, by stimulus type

	Reduced sugar intake	Not reduced sugar intake
Breakfast Cereal		
97% Fat Free	34.0	66.0
Increased Fibre	33.2	66.8
Good Source of Fibre	28.8	71.2
Reduced Sugar	52.2	47.8
No claim	35.5	64.5
Statistic: $\chi^2(4) = 29.203, p < 0.001$		
Sweet Biscuits		
Low in saturated fat	23.7	76.3
Reduced fat	22.8	77.2
Good source of fibre	26.8	73.2
No added sugar	41.9	58.1
No claim	24.6	75.4
Statistic: $\chi^2(4) = 26.350, p < 0.001$		

Table 107: Increased fibre intake from eating the product, by stimulus type

	Increased fibre intake	Not increased fibre intake
Breakfast Cereal		
97% Fat Free	79.7	20.3
Increased Fibre	81.3	18.8
Good Source of Fibre	85.6	14.4
Reduced Sugar	73.4	26.6
No claim	81.5	18.5
Statistic: $\chi^2(4) = 10.485, p=0.033$		
Sweet Biscuits		
Low in saturated fat	71.6	28.4
Reduced fat	76.7	23.3
Good source of fibre	78.5	21.5
No added sugar	73.8	26.2
No claim	73.5	26.5
Statistic: $\chi^2(4) = 3.401, p = 0.493, n.s.$		

Table 108: Maintenance of healthy digestive function from eating the product, by stimulus type

	Maintenance of healthy digestive function	Not maintenance of healthy digestive function
Breakfast Cereal		
97% Fat Free	79.7	20.3
Increased Fibre	76.0	24.0
Good Source of Fibre	80.2	19.8
Reduced Sugar	78.7	21.3
No claim	74.4	25.6
Statistic: $\chi^2(4) = 3.101$, $p = 0.541$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	64.0	36.0
Reduced fat	60.7	39.3
Good source of fibre	63.6	36.4
No added sugar	63.3	36.7
No claim	63.0	37.0
Statistic: $\chi^2(4) = 0.614$, $p = 0.961$, <u>n.s.</u>		

Table 109: Maintenance of healthy veins and arteries from eating the product, by stimulus type

	Maintenance of healthy veins and arteries	Not maintenance of healthy veins or arteries
Breakfast Cereal		
97% Fat Free	37.7	62.3
Increased Fibre	48.1	51.9
Good Source of Fibre	37.8	62.2
Reduced Sugar	42.5	57.5
No claim	42.2	57.8
Statistic: $\chi^2(4) = 6.288$, $p = 0.179$, <u>n.s.</u>		
Sweet Biscuits		
Low in saturated fat	30.3	69.7
Reduced fat	24.7	75.3
Good source of fibre	30.1	69.9
No added sugar	31.0	69.0
No claim	28.9	71.1
Statistic: $\chi^2(4) = 2.711$, $p = 0.607$, <u>n.s.</u>		

7. APPENDIX B: ADDITIONAL EXPLORATORY ANALYSES

General Production Nutrition Attitude:

Do socio-demographic variables moderate the relationship between exposure to claim and general product nutrition attitude?

Age

Age group was significantly associated with general nutrition attitude when considered with the exposure to claim. Bonferroni t-tests of multiple comparisons were performed to identify the variation in age groups from the between groups ANOVA analyses. The older group reported significantly greater general product nutrition attitude than their middle-aged ($p < 0.001$) and younger counterparts ($p = 0.033$).

Table A1: Impact of claim and age group on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1024)=0.006	0.938
Age group	F(2, 1024)=8.606	0.002
Claim*age group	F(2, 1024)=2.597	0.075

Note: Homogeneity of variance was violated (Levene's $F(5,1024)=3.378$, $p=0.005$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A2: Mean general nutrition attitudes, by age groups

	Mean	SD
Younger (18 - 34 yrs)	4.42	1.11
Middle (35 - 54 yrs)	4.33	1.21
Older (55 yrs +)	4.67	1.30

Gender

There were no effects (main or interaction) of gender moderating the relationship between exposure to claim and general product nutrition attitude.

Table A3: Impact of claim and gender on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1026)=0.063	0.802
Gender	F(1, 1026)=1.192	0.275
Claim*gender	F(1, 1026)=0.818	0.366

Income level

General product nutrition attitude was found to vary significantly across income levels. Using Bonferroni t-tests, it was revealed that persons in the 4th quartile had weaker general nutrition attitudes than persons in the 1st ($p < 0.001$) and 2nd quartiles ($p < 0.001$). Additionally, persons in the 3rd quartile had weaker general nutrition attitudes than persons in the 1st quartile ($p = 0.001$).

Table A4: Impact of claim and income level on general nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 882) = 0.000$	0.998
Income level	$F(3, 882) = 7.660$	<0.001
Claim*income level	$F(3, 882) = 0.771$	0.510

Table A5: Mean general nutrition attitudes, by income quartiles

	Mean	SD
1 st quartile (\$0-\$40,000)	4.75	1.18
2 nd quartile (\$40,001-\$70,000)	4.57	1.06
3 rd quartile (\$70,001-\$100,000)	4.34	1.20
4 th quartile (\$100,000 +)	4.11	1.06

Country

At the 0.01 alpha level, there was no differences between countries of respondents in terms of general nutrition attitudes.

Table A6: Impact of claim and country on general nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 1026) = 0.553$	0.457
Country	$F(1, 1026) = 6.395$	0.012
Claim*country	$F(1, 1035) = 1.487$	0.223

Note: Homogeneity of variance was violated (Levene's $F(3, 1026) = 5.466$, $p = 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate.

Education

Education was significantly associated with general nutrition attitude, with secondary educated respondents reporting higher general nutrition attitudes than those with higher than secondary education.

Table A7: Impact of claim and education on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1000)=0.045	0.832
Education	F(1, 1000)=32.843	<0.001
Claim*education	F(1, 1000)=1.296	0.255

Table A8: Mean general nutrition attitudes, by education

	Mean	SD
Secondary	4.69	1.15
Higher than secondary	4.23	1.17

Dependents

General nutrition attitude varied according to the presence of dependents in the household, with respondents with dependents (i.e. persons under 18 years) reporting lower general nutrition attitude than those respondents without dependents.

Table A9: Impact of claim and dependent children on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1025)=0.024	0.876
Dependent children	F(1, 1025)=5.319	0.021
Claim*dependent children	F(1, 1034)=0.658	0.418

Table A10: Mean general nutrition attitude, by dependent children

	Mean	SD
No dependents	4.53	1.20
Dependents	4.36	1.15

Ethnicity

Ethnicity was significantly associated with general nutrition attitudes, with indigenous respondents reporting greater general nutrition attitudes than non-indigenous respondents.

Table A11: Impact of claim and ethnicity on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1023)=2.655	0.104
Ethnicity	F(1, 1023)=6.078	0.014
Claim*ethnicity	F(1, 1023)=3.014	0.083

Table A12: Mean general nutrition attitude, by ethnicity

	Mean	SD
Non-indigenous	4.44	1.19
Indigenous	4.73	0.96

Do cognitive and behavioural measures moderate the relationship between exposure to claim and general nutrition attitudes?

Trust in nutritional label information

General product nutrition attitude varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated higher general product nutrition attitude than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information. Additionally, respondents reporting medium trust were more likely to report greater general product nutrition attitude than respondents with low trust ($p = 0.001$).

Table A13: Impact of claim and trust in nutritional label information on general nutrition attitudes

Variable	F(df)	p
Claim	F(1, 1018)=1.481	0.224
Trust	F(2, 1018)=22.864	<0.001
Claim*Trust	F(2, 1018)=2.898	0.056

Note: Homogeneity of variance was violated (Levene's $F(5,1018)=4.942$, $p < 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A14: Mean general product nutrition attitude, by trust

	Mean	SD
Low	4.03	1.31
Medium	4.43	1.08
High	4.83	1.20

Attention to healthy diet

Attention to healthy diet was not significantly related with general product nutrition attitude.

Table A15: Impact of claim and attention to healthy diet on general nutrition attitude

Variable	F(df)	p
Claim	$F(1, 1024)=1.535$	0.216
Attention to healthy diet	$F(2, 1024)=1.309$	0.271
Claim*attention to healthy diet	$F(2, 1024)=1.463$	0.232

Motivation to read nutrition information

Motivation to read nutrition information was not significantly associated with general product nutrition attitude at the 0.01 alpha level, when added to the model with exposure to claim.

Table A16: Impact of claim and motivation to read nutrition information on general nutrition attitude

Variable	F(df)	p
Claim	$F(1, 1022)=0.093$	0.760
Motivation to read nutrition information	$F(2, 1022)=3.380$	0.034
Claim* Motivation to read nutrition information	$F(2, 1022)=1.182$	0.307

Note: Homogeneity of variance was violated (Levene's $F(5,1022)=8.546$, $p<0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and general nutrition attitude.

Table A17: Impact of claim and main grocery shopper on general nutrition attitude

Variable	F(df)	p
Claim	F(1, 1026)=0.072	0.789
Main grocery shopper	F(1, 1026)=0.005	0.944
Claim* Main grocery shopper	F(1, 1026)=0.009	0.922

Health concerns

The relationship between claim and general nutrition attitudes was not affected by the inclusion of health concerns in the two-way between subjects ANOVA.

Table A18: Impact of claim and health concerns on general nutrition attitude

Variable	F(df)	p
Claim	F(1, 1022)=0.078	0.780
Health concerns	F(3, 1022)=0.408	0.747
Claim*health concerns	F(3, 1022)=0.028	0.994

Nutrition knowledge

Nutrition knowledge was significantly associated with general product nutrition attitude, when added to the model with exposure to claim. Respondents reporting low nutrition knowledge reported greater general product nutrition attitudes than those reporting high nutrition knowledge ($p < 0.001$). In addition, there was an interaction effect of claim x nutrition knowledge ($p = 0.036$), such that general product nutrition attitude was more positive for respondents not exposed to nutritional content claims for respondents with low nutrition knowledge. Conversely, for respondents with high nutrition knowledge, general product nutrition attitude was more positive when respondents were exposed to nutrition content claims.

Table A19: Impact of claim and nutrition knowledge on general nutrition attitude

Variable	F(df)	p
Claim	F(1, 1026)=0.163	0.687
Nutrition knowledge	F(1, 1026)=44.096	<0.001
Claim* Nutrition knowledge	F(1, 1026)=4.432	0.036

Table A20: Mean general nutrition attitude, by nutrition knowledge

		Mean	SD
No claim	Low	4.95	1.12
	High	4.14	1.17
	Total	4.48	1.21
Claim	Low	4.71	1.19
	High	4.30	1.14
	Total	4.45	1.18
Total	Low	4.77	1.18
	High	4.27	1.15
	Total	4.46	1.18

Specific Nutrition Attitude

Do socio-demographic variables moderate the relationship between exposure to claim and specific product nutrition attitude?

Age

Age group was significantly associated with specific nutrition attitude when considered with the exposure to claim. Bonferroni t-tests of multiple comparisons were performed to identify the variation in age groups from the between groups ANOVA analyses. The older group reported significantly greater specific product nutrition attitude than their middle-aged counterparts ($p=0.004$).

Table A21: Impact of claim and age group on specific nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 939)=0.256$	0.613
Age group	$F(2, 939)=4.791$	0.009
Claim*age group	$F(2, 939)=0.785$	0.456

Table A23: Mean specific nutrition attitudes, by age groups

	Mean	SD
Younger (18 - 34 yrs)	4.80	0.94
Middle (35 - 54 yrs)	4.65	0.96
Older (55 yrs +)	4.90	1.06

Gender

There were no effects (main or interaction) of gender moderating the relationship between exposure to claim and specific product nutrition attitude.

Table A23: Impact of claim and gender on specific nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 941)=0.308$	0.579
Gender	$F(1, 941)=0.707$	0.401
Claim*gender	$F(1, 941)=2.086$	0.149

Income level

Specific product nutrition attitude was found to vary significantly across income levels. Using Bonferroni t-tests, it was revealed that persons in the 1st quartile had greater specific nutrition attitudes than persons in the 4th ($p<0.001$) and 3rd quartiles ($p=0.004$).

Table A24: Impact of claim and income level on specific nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 816)=1.857$	0.173
Income level	$F(3, 816)=4.709$	0.003
Claim*income level	$F(3, 816)=0.394$	0.757

Table A25: Mean specific nutrition attitudes, by income quartiles

	Mean	SD
1 st quartile (\$0-\$40,000)	4.99	0.97
2 nd quartile (\$40,001-\$70,000)	4.79	0.96
3 rd quartile (\$70,001-\$100,000)	4.67	0.95
4 th quartile (\$100,000 +)	4.59	0.90

^c Significant difference at $p<0.001$

Country

Country of respondents was not significantly associated with specific product nutrition attitude.

Table A26: Impact of claim and country on specific nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 941)=0.175$	0.676
Country	$F(1, 941)=0.5436$	0.461
Claim*country	$F(1, 941)=0.134$	0.714

Note: Homogeneity of variance was violated (Levene's $F(3,941)=2.625$, $p=0.049$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Education

Education was significantly associated with specific nutrition attitude, with secondary educated respondents reporting higher specific nutrition attitudes than those with higher than secondary education.

Table A27: Impact of claim and education on specific nutrition attitudes

Variable	F(df)	p
Claim	$F(1, 918)=0.985$	0.321
Education	$F(1, 918)=13.175$	<0.001
Claim*education	$F(1, 918)=0.132$	0.716

Table A28: Mean specific nutrition attitudes, by education

	Mean	SD
Secondary	4.90	1.02
Higher than secondary	4.63	0.93

Dependents

Specific nutrition attitude did not vary according to the presence of dependents in the household.

Table A29: Impact of claim and dependent children on specific product nutrition attitude

Variable	F(df)	p
Claim	$F(1, 940)=0.392$	0.531
Dependent children	$F(1, 940)=0.852$	0.356
Claim*dependent children	$F(1, 940)=0.332$	0.565

Ethnicity

Ethnicity was not significantly associated with specific nutrition attitudes.

Table A30: Impact of claim and ethnicity on specific nutrition attitudes

Variable	F(df)	p
Claim	F(1, 938)=0.639	0.424
Ethnicity	F(1, 938)=2.815	0.094
Claim*ethnicity	F(1, 938)=1.614	0.204

Do cognitive and behavioural measures moderate the relationship between exposure to claim and specific nutrition attitude?

Trust in nutritional label information

Specific product nutrition attitude varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated higher specific product nutrition attitude than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information. Additionally, respondents reporting medium trust were more likely to report greater specific product nutrition attitude than respondents with low trust ($p = 0.012$).

Table A31: Impact of claim and trust in nutritional label information on specific product nutrition attitude

Variable	F(df)	p
Claim	F(1, 935)=0.056	0.813
Trust	F(2, 935)=17.394	<0.001
Claim*Trust	F(2, 935)=0.648	0.523

Table A32: Mean specific nutrition attitudes, by trust

	Mean	SD
Low	4.38	1.05
Medium	4.74	0.91
High	5.09	0.98

Attention to healthy diet

Attention to healthy diet was not significantly related with specific product nutrition attitude.

Table A33: Impact of claim and attention to healthy diet on specific nutrition attitude

Variable	F(df)	p
Claim	$\underline{F}(1, 939)=0.933$	0.334
Attention to healthy diet	$\underline{F}(2, 939)=0.237$	0.789
Claim*attention to healthy diet	$\underline{F}(2, 939)=0.498$	0.608

Motivation to read nutrition information

Motivation to read nutrition information was not significantly associated with specific product nutrition attitude, when added to the model with exposure to claim.

Table A34: Impact of claim and motivation to read nutrition information on specific product nutrition attitude

Variable	F(df)	p
Claim	$\underline{F}(1, 939)=0.610$	0.435
Motivation to read nutrition information	$\underline{F}(2, 939)=2.193$	0.112
Claim* Motivation to read nutrition information	$\underline{F}(2, 939)=0.191$	0.826

Note: Homogeneity of variance was violated (Levene's $\underline{F}(5,939)=4.058$, $p=0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and specific nutrition attitude.

Table A35: Impact of claim and main grocery shopper on specific nutrition attitude

Variable	F(df)	p
Claim	$\underline{F}(1, 941)=0.348$	0.555
Main grocery shopper	$\underline{F}(1, 941)=0.807$	0.369
Claim* Main grocery shopper	$\underline{F}(1, 941)=0.022$	0.882

Health concerns

The relationship between claim and specific nutrition attitudes was not affected by the inclusion of health concerns in the two-way between subjects ANOVA.

Table A36: Impact of claim and health concerns on specific nutrition attitude

Variable	F(df)	p
Claim	F(1, 937)=0.267	0.605
Health concerns	F(3, 937)=0.456	0.713
Claim*health concerns	F(3, 937)=0.541	0.655

Nutrition knowledge

Nutrition knowledge was significantly associated with specific product nutrition attitude ($p < 0.001$), when added to the model with exposure to claim. Respondents with low nutrition knowledge had greater specific product nutrition attitudes than respondents with high nutrition knowledge.

Table A37: Impact of claim and nutrition knowledge on specific nutrition attitude

Variable	F(df)	p
Claim	F(1, 941)=0.276	0.600
Nutrition knowledge	F(1, 941)=13.135	<0.001
Claim* Nutrition knowledge	F(1, 941)=2.154	0.143

Table A38: Mean specific product nutrition attitude, by nutrition knowledge

	Mean	SD
Low	4.91	1.02
High	4.69	0.95

Who Would Benefit from Eating the Food Product:

Do socio-demographic variables moderate the relationship between exposure to claim and perceived number of people who would benefit from eating the food product?

Age

Age group was not significantly associated with perceived number of people who would benefit from eating the food product.

Table A39: Impact of claim and age group on perceived number of people who would benefit

Variable	F(df)	p
Claim	$F(1, 1054)=02.487$	0.115
Age group	$F(2, 1054)=2.057$	0.128
Claim*age group	$F(2, 1054)=1.408$	0.245

Note: Homogeneity of variance was violated (Levene's $F(5,1054)=3.036$, $p=0.010$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Gender

There was a main effect of gender moderating the relationship between exposure to claim and perceived number of people who would benefit from eating the product, with males more likely to report more potential beneficiaries than females ($p=0.002$).

Table A40: Impact of claim and gender on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	$F(1, 1056)=2.233$	0.135
Gender	$F(1, 1056)=10.036$	0.002
Claim*gender	$F(1, 1056)=1.084$	0.298

Table A41: Mean number of perceived beneficiaries, by education

	Mean	SD
Male	4.19	2.04
Female	3.79	2.04

Income level

Perceived number of people who would benefit from eating the food product were found to vary significantly across income levels. Using Bonferroni t-tests, it was revealed that respondents in the 1st quartile perceived more people would benefit than respondents in the 4th ($p<0.001$) and 3rd quartiles ($p=0.002$). Also, persons in the 2nd quartile perceived more beneficiaries from the 4th quartile ($p<0.001$) and the 3rd quartile ($p=0.003$).

Table A42: Impact of claim and income level on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	F(1, 902)=2.285	0.131
Income level	F(3, 902)=7.234	<0.001
Claim*income level	F(3, 902)=0.384	0.765

Table A43: Mean number of perceived beneficiaries, by income quartiles

	Mean	SD
1 st quartile (\$0-\$40,000)	4.35	1.95
2 nd quartile (\$40,001-\$70,000)	4.34	1.93
3 rd quartile (\$70,001-\$100,000)	3.67	2.07
4 th quartile (\$100,000 +)	3.54	2.11

Country

Country of respondents was significantly associated with perceived beneficiaries of eating the product, with New Zealand respondents reporting more perceived beneficiaries than Australian respondents ($p<0.001$).

Table A44: Impact of claim and country on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	F(1, 1056)=0.881	0.348
Country	F(1, 1056)=22.548	<0.001
Claim*country	F(1,1056)=1.109	0.293

Table A45: Mean number of perceived beneficiaries, by income quartiles

	Mean	SD
Australia	3.78	2.13
New Zealand	4.48	1.77

Note: Homogeneity of variance was violated (Levene's $F(3,1030)=3.342$, $p=0.019$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Education

Education was significantly associated with perceived number of people who would benefit from eating the product, with secondary educated respondents reporting greater perceived beneficiaries than those with higher than secondary education ($p < 0.001$).

Table A46: Impact of claim and education on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	$F(1, 1030)=3.683$	0.055
Education	$F(1, 1030)=22.618$	<0.001
Claim*education	$F(1, 1030)=0.146$	0.703

Table A47: Mean number of perceived beneficiaries, by education

	Mean	SD
Secondary	4.37	1.67
Higher than secondary	3.60	2.08

Dependents

Perceptions of beneficiaries by eating the product did not vary according to the presence of dependents in the household.

Table A48: Impact of claim and dependent children on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	$F(1, 1055)=2.814$	0.094
Dependent children	$F(1, 1055)=3.361$	0.067
Claim*dependent children	$F(1, 1055)=2.377$	0.123

Ethnicity

Ethnicity was significantly associated with perceived beneficiaries by eating the product, with Indigenous respondents reporting more perceived beneficiaries than non-Indigenous respondents ($p < 0.001$).

Table A49: Impact of claim and ethnicity on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	$F(1, 1053)=0.372$	0.542
Ethnicity	$F(1, 1053)=17.249$	<0.001
Claim*ethnicity	$F(1, 1053)=0.045$	0.832

Note: Homogeneity of variance was violated (Levene's $F(3,1053)=6.151$, $p < 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A50: Mean number of perceived beneficiaries, by ethnicity

	Mean	SD
Non-Indigenous	3.93	2.05
Indigenous	5.20	1.51

Do cognitive and behavioural measures moderate the relationship between exposure to claim and perceived number of people who would benefit from eating the food product?

Trust in nutritional label information

Perceived number of people who would benefit by eating the product varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated greater perceived beneficiaries than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information. Additionally, respondents reporting medium trust were more likely to report greater perceived beneficiaries of eating the product than respondents with low trust ($p < 0.001$).

Table A51: Impact of claim and trust in nutritional label information on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	F(1, 1044)=0.001	0.981
Trust	F(2, 1044)=19.677	<0.001
Claim*Trust	F(2, 1044)=2.623	0.073

Note: Homogeneity of variance was violated (Levene's $F(5,1044)=4.578$, $p<0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A52: Mean number of perceived beneficiaries, by trust

	Mean	SD
Low	3.22	2.23
Medium	3.98	1.98
High	4.63	1.84

Attention to healthy diet

Attention to healthy diet was not significantly related with perceived number of people who would benefit from eating the product; however in the two-way ANOVA, claim (i.e. presence or absence of nutrition content claim) was significant, with respondents exposed to the claim material reporting more beneficiaries than those exposed to the no-claim material ($p=0.043$).

Table A53: Impact of claim and attention to healthy diet on perceived number of people who would benefit from eating the product

Variable	F(df)	p
Claim	F(1, 1054)=4.100	0.043
Attention to healthy diet	F(2, 1054)=2.224	0.109
Claim*attention to healthy diet	F(2, 1054)=1.096	0.335

Table A54: Mean number of perceived beneficiaries, by trust

	Mean	SD
No-claim	3.81	2.14
Claim	4.04	2.02

Motivation to read nutrition information

Motivation to read nutrition information was significantly associated with perceived number of people who would benefit by eating the food product. Respondents with high

levels of motivation to read nutritional information reported significantly fewer perceived beneficiaries than respondents with medium ($p < 0.001$) and low ($p = 0.019$) levels of motivation to read nutritional information.

Table A55: Impact of claim and motivation to read nutrition information on perceived number of people who would benefit by eating the product

Variable	F(df)	p
Claim	$F(1, 1052) = 3.907$	0.048
Motivation to read nutrition information	$F(2, 1052) = 7.861$	<0.001
Claim* Motivation to read nutrition information	$F(2, 1052) = 1.783$	0.169

Note: Homogeneity of variance was violated (Levene's $F(5, 1052) = 3.628$, $p = 0.003$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate.

Table A56: Mean number of perceived beneficiaries, by motivation to read nutrition information

	Mean	SD
Low	4.26	1.94
Medium	4.17	1.98
High	3.51	2.17

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and perceived number of people who would benefit by eating the product.

Table A57: Impact of claim and main grocery shopper on perceived number of people who would benefit by eating the product

Variable	F(df)	p
Claim	$F(1, 1056) = 0.984$	0.321
Main grocery shopper	$F(1, 1056) = 3.094$	0.079
Claim* Main grocery shopper	$F(1, 1056) = 0.253$	0.615

Health concerns

When health concerns and claim were examined together to investigate a possible relationship with perceived number of people who would benefit by eating the food product, while health concerns was not significant, claim was. Respondents who were exposed to claim material reported greater beneficiaries than respondents who were exposed to the no-claim material ($p = 0.042$).

Table A58: Impact of claim and health concerns on perceived number of people who would benefit by eating the product

Variable	F(df)	p
Claim	F(1, 1052)=4.160	0.042
Health concerns	F(3, 1052)=0.358	0.784
Claim*health concerns	F(3, 1052)=1.044	0.372

Table A59: Mean number of perceived beneficiaries, by trust

	Mean	SD
No-claim	3.81	2.14
Claim	4.04	2.02

Nutrition knowledge

Nutrition knowledge was significantly associated with perceived number of people who would benefit by eating the product, when added to the model with exposure to claim. Respondents with low nutritional knowledge reported more beneficiaries than respondents with high nutritional knowledge ($p < 0.001$).

Table A60: Impact of claim and nutrition knowledge on perceived number of people who would benefit by eating the product

Variable	F(df)	p
Claim	F(1, 1056)=2.531	0.112
Nutrition knowledge	F(1, 1056)=24.797	<0.001
Claim* Nutrition knowledge	F(1, 1056)=0.245	0.621

Table A61: Mean number of perceived beneficiaries, by nutrition knowledge

	Mean	SD
Low	4.45	1.91
High	3.71	2.08

Perceived Number of Health Benefits from Eating the Food Product:

Do socio-demographic variables moderate the relationship between exposure to claim and perceived number of health benefits from eating the food product?

Age

Age was significantly associated with perceptions of what types of health benefit from eating the food product. Older respondents reported more health benefits than middle-aged ($p < 0.001$) and younger ($p < 0.001$) cohorts.

Table A62: Impact of claim and age group on perceived number of health benefits from eating the food product

Variable	F(df)	p
Claim	$F(1, 1054)=1.132$	0.288
Age group	$F(2, 1054)=7.202$	0.001
Claim*age group	$F(2, 1054)=0.497$	0.609

Note: Homogeneity of variance was violated (Levene's $F(5,1054)=5.949$, $p < 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

Table A63: Mean types of health benefits, by age group

	Mean	SD
Younger (18-34 years)	4.08	2.34
Middle (35-54 years)	4.03	2.60
Older (55 years and over)	4.88	2.93

Gender

There was a main effect of gender moderating the relationship between exposure to claim and perceived number of health benefits from eating the product, with males more likely to report more potential benefits than females ($p < 0.001$).

Table A64: Impact of claim and gender on perceived number of health benefits from eating the food product

Variable	F(df)	p
Claim	$F(1, 1056)=0.860$	0.354
Gender	$F(1, 1056)=22.088$	<0.001
Claim*gender	$F(1, 1056)=2.851$	0.092

Note: Homogeneity of variance was violated (Levene's $F(3,1056)=5.476$, $p = 0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used were appropriate

Table A65: Mean types of health benefits, by gender

	Mean	SD
Male	4.66	2.73
Female	3.92	2.51

Income level

Perceived number of health benefits from eating the food product were found to vary significantly across income levels, with persons in the 1st quartile reporting more types of benefits than persons in the 4th ($p < 0.001$) and 3rd quartiles ($p = 0.001$).

Table A66: Impact of claim and income level on perceptions of what type of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 902) = 0.800$	0.371
Income level	$F(3, 902) = 6.286$	<0.001
Claim*income level	$F(3, 902) = 0.083$	0.970

Note: Homogeneity of variance was violated (Levene's $F(7,902) = 2.233$, $p = 0.030$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A67: Mean type of health benefits, by income quartiles

	Mean	SD
1 st quartile (\$0-\$40,000)	4.97	2.82
2 nd quartile (\$40,001-\$70,000)	4.39	2.55
3 rd quartile (\$70,001-\$100,000)	4.04	2.48
4 th quartile (\$100,000 +)	3.78	2.43

Country

Country of respondents was significantly associated with the perceived number of types of health benefits of eating the product, with New Zealand respondents reporting more types of benefits than Australian respondents ($p = 0.008$).

Table A68: Impact of claim and country on perceived number of health benefits from eating the food product

Variable	F(df)	p
Claim	$F(1, 1056) = 0.288$	0.592
Country	$F(1, 1056) = 7.061$	0.008
Claim*country	$F(1, 1056) = 0.542$	0.462

Table A69: Mean types of health benefits, by income quartiles

	Mean	SD
Australia	4.15	2.69
New Zealand	4.64	2.51

Education

Education was significantly associated with perceived number of health benefits of eating the product, with secondary educated respondents reporting greater perceptions of types of benefits than those with higher than secondary education ($p < 0.001$).

Table A70: Impact of claim and education on perceived number of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1030)=1.801$	0.180
Education	$F(1, 1030)=25.049$	<0.001
Claim*education	$F(1, 1030)=0.002$	0.963

Note: Homogeneity of variance was violated (Levene's $F(3,1030)=5.933$, $p=0.001$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A71: Mean types of health benefits, by education

	Mean	SD
Secondary	4.80	2.81
Higher than secondary	3.80	2.41

Dependents

Perceived number of health benefits by eating the product varied according to the presence of dependents in the household, with respondents with dependents reporting more types of health benefits from eating the food product than respondents with no dependents ($p=0.004$).

Table A72: Impact of claim and dependent children on perceived number of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1055)=1.082$	0.298
Dependent children	$F(1, 1055)=8.238$	0.004
Claim*dependent children	$F(1, 1055)=1.267$	0.261

Note: Homogeneity of variance was violated (Levene's $F(3,1055)=3.389$, $p=0.018$) and as such alpha criteria of 0.01 was applied. Dunnett's T3 tests of post-hoc comparisons were used where appropriate

Table A73: Mean types of health benefits, by dependent children

	Mean	SD
No dependents	4.48	2.71
Dependents	4.03	2.52

Ethnicity

Ethnicity was significantly associated with perceived number of health benefits by eating the product, with Indigenous respondents reporting more types of benefits than non-Indigenous respondents ($p < 0.001$).

Table A74: Impact of claim and ethnicity on perceptions of what types of benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1053)=0.398$	0.528
Ethnicity	$F(1, 1053)=15.732$	<0.001
Claim*ethnicity	$F(1, 1053)=1.600$	0.206

Table A75: Mean types of health benefits, by ethnicity

	Mean	SD
Non-Indigenous	4.28	2.60
Indigenous	5.39	2.84

Do cognitive and behavioural measures moderate the relationship between exposure to claim and perceptions of what types of health benefits from eating the food product?

Trust in nutritional label information

Perceptions of what types of health benefits by eating the product varied significantly across different levels of trust in nutritional label information. Respondents reporting high trust in nutritional label information indicated more types of health benefits than respondents with medium ($p < 0.001$) and low ($p < 0.001$) trust in nutritional label information.

Table A76: Impact of claim and trust in nutritional label information on perceptions of what types of health benefits from eating the product

Variable	F(df)	p
Claim	F(1, 1044)=0.061	0.805
Trust	F(2, 1044)=18.289	<0.001
Claim*Trust	F(2, 1044)=1.762	0.172

Table A77: Mean types of health benefits, by trust

	Mean	SD
Low	3.52	2.62
Medium	4.17	2.47
High	5.18	2.81

Attention to healthy diet

Attention to healthy diet was not significantly related with perceived number of health benefits from eating the product.

Table A78: Impact of claim and attention to healthy diet on perception of what types of health benefits from eating the food product

Variable	F(df)	p
Claim	F(1, 1054)=1.100	0.294
Attention to healthy diet	F(2, 1054)=0.929	0.395
Claim*attention to healthy diet	F(2, 1054)=0.215	0.807

Motivation to read nutrition information

Motivation to read nutrition information was not significantly associated with perceived number of health benefits from eating the food product.

Table A79: Impact of claim and motivation to read nutrition information on perceptions of what types of health benefits from eating the product

Variable	F(df)	p
Claim	F(1, 1052)=1.543	0.215
Motivation to read nutrition information	F(2, 1052)=2.935	0.054
Claim* Motivation to read nutrition information	F(2, 1052)=1.987	0.138

Main grocery shopper

Main grocery shopper status did not moderate the relationship between exposure to claim and perceived number of health benefits from eating the product.

Table A80: Impact of claim and main grocery shopper on perceptions of what types of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1056)=0.846$	0.358
Main grocery shopper	$F(1, 1056)=0.629$	0.428
Claim* Main grocery shopper	$F(1, 1056)=0.070$	0.791

Health concerns

Health concerns were not significantly associated with perceived number of health benefits from eating the food product.

Table A81: Impact of claim and health concerns on perceptions of what types of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1052)=0.634$	0.426
Health concerns	$F(3, 1052)=0.947$	0.417
Claim*health concerns	$F(3, 1052)=0.454$	0.715

Nutrition knowledge

Nutrition knowledge was significantly associated with perceived number of health benefits from eating the product, when added to the model with exposure to claim. Respondents with low nutritional knowledge reported more types of health benefits than respondents with high nutritional knowledge ($p<0.001$).

Table A82: Impact of claim and nutrition knowledge on perceptions of what types of health benefits from eating the product

Variable	F(df)	p
Claim	$F(1, 1056)=0.998$	0.318
Nutrition knowledge	$F(1, 1056)=31.673$	<0.001
Claim* Nutrition knowledge	$F(1, 1056)=0.560$	0.454

Table A83: Mean types of health benefits, by nutrition knowledge

	Mean	SD
Low	4.94	2.88
High	3.89	2.41

8. APPENDIX C: TECHNICAL APPENDIX

Assumptions of Analyses

ANOVA

The major assumptions for ANOVA are:

1. Normality of the DV – *robust to departures*
2. Homogeneity of variance – *groups should come from populations with equal variance*
3. Independence – *determined in the design of the study*

1. Dependent variables (purchase intention, general nutrition attitude, specific nutrition attitude, perceived number of people who would benefit from eating the product, and perceived number of health benefits from eating the product) were all non-normal in distribution. However, the assumption of normality is considered robust to departures, and as the sample sizes were large (i.e. more than 1000) the distribution approximated normality due to Central Limit Theorem²³. Additionally, as the samples were large, statistical testing of skewness and kurtosis of the dependent variables was not meaningful. Inspection of Q-Q plots shows that the variables resemble normal distributions. As a result, remedial measures were not taken.

2. Using the Levene's Test of Homogeneity, the Homogeneity of variance assumption for ANOVA was violated for the Dependent Variable of Who would benefit from eating the product in the one-way ANOVA involving Claim ($p=0.040$). However, according to Tabachnick & Fidell²², it "is generally agreed that most formal tests of homogeneity of variance are too strict because they are too highly influenced by non-normality" (p80).

To deal with this violation for the current investigation:

- i). A stricter criterion for alpha of 0.01 was introduced where this assumption was violated
- ii). The Welch statistic was used in preference to the standard F statistic for oneway ANOVAs
- iii). Where variances were not equal, post hoc comparisons featured the Dunnett's T3 test statistic (which is appropriate where equal variances are not assumed).

3. Independence – groups were independent as determined in the study design

²³ Tabachnick, B.G. & Fidell, L.S. (1996). *Using Multivariate Statistics* (3rd edn). New York: HarperCollins College Publishers.

Using the more stringent criteria, there were slight changes than would be expected using the standard criteria. This included rejecting age ($p=0.036$) and dependents ($p=0.021$) as being influential at the 0.01 alpha level when looking at purchase intention of breakfast cereal. Furthermore, in the follow-up analyses of non-significant findings of general nutrition attitude, country of residence ($p=0.012$) and motivation to read nutrition information ($p=0.034$) were rejected, as they did not meet the more stringent significance value.

Linear Regression

Major assumptions are:

1. Linearity of the relationship between dependent and independent variables
2. Independence of the errors
3. Homoscedasticity (constant variance) of the errors
4. Normality of the error distribution

To look at the regression assumptions, plots for each regression equation of *residuals versus predicted values* were constructed, and examined.

In summary:

DV1 (Purchase intention):

Linearity – graph shows linear (i.e. not curvilinear)

Homoscedasticity – no evidence of violation from graphs

Normality – mostly normal as data points centred around zero
(normality is not essential for regression)

Independence – no issues with collinearity or singularity

DV2 (General Nutrition Attitude):

Linearity – graph shows linear (i.e. not curvilinear)

Homoscedasticity – no evidence of violation from graphs

Normality – mostly normal as data points centred around zero
(normality is not essential for regression)

Independence – no issues with collinearity or singularity

DV3 (Specific Nutrition Attitude):

Linearity – graph shows linear (i.e. not curvilinear)

Homoscedasticity – no evidence of violation from graphs

Normality – mostly normal as data points centred around zero
(normality is not essential for regression)

Independence – no issues with collinearity or singularity

DV4 (Perceived Number of People Who Would Benefit from Eating the Product):

Linearity – graph shows linear (i.e. not curvilinear)

Homoscedasticity – no evidence of violation from graphs

Normality – mostly normal as data points centred around zero
(normality is not essential for regression)

Independence – evidence of possible problems with collinearity in the 9th dimension only

(condition index over 15 for this dimension)

DV5 (Perceived Number of Types of Health Benefits from Eating the Product):

Linearity – graph shows linear (i.e. not curvilinear)

Homoscedasticity – no evidence of violation from graphs

Normality – mostly normal as data points centred around zero

(normality is not essential for regression)

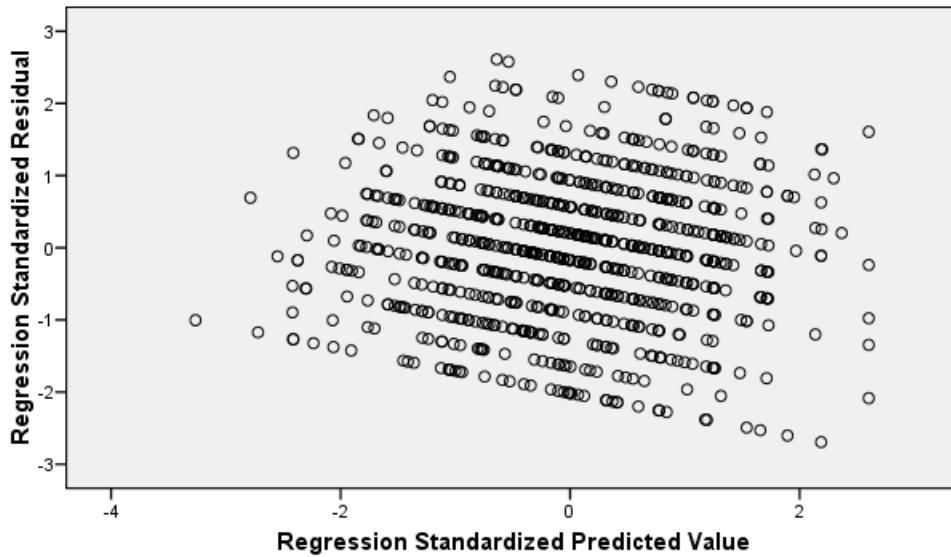
Independence – evidence of possible problems with collinearity in the 9th dimension only

(condition index over 15 for this dimension)

Plots of residuals vs predicted values of the DVs

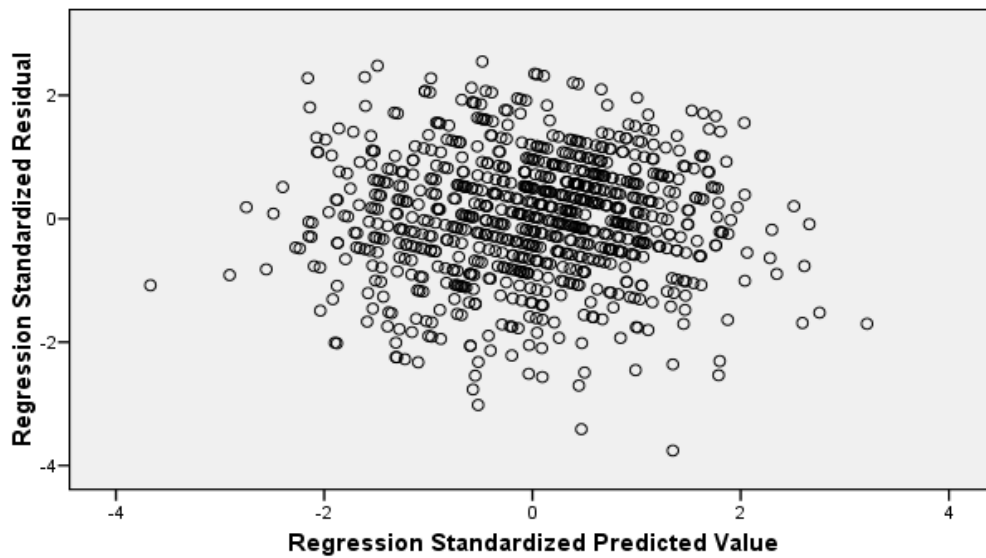
Scatterplot

Dependent Variable: DV1_purchase_intent



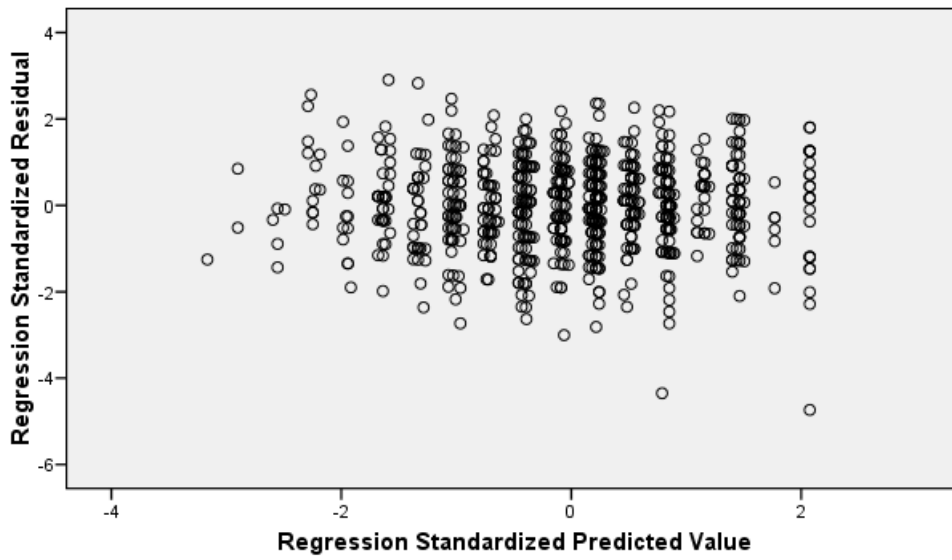
Scatterplot

Dependent Variable: DV2_general_nutrition_att



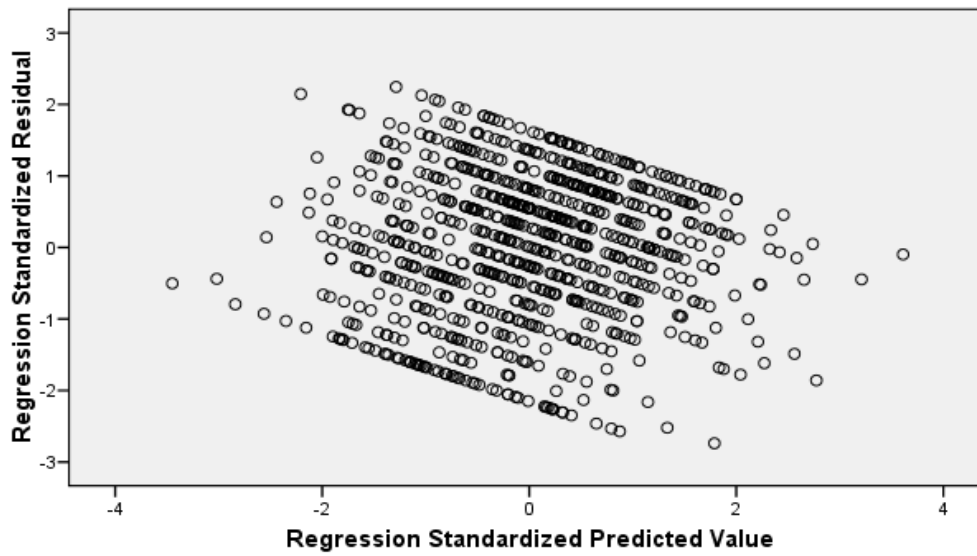
Scatterplot

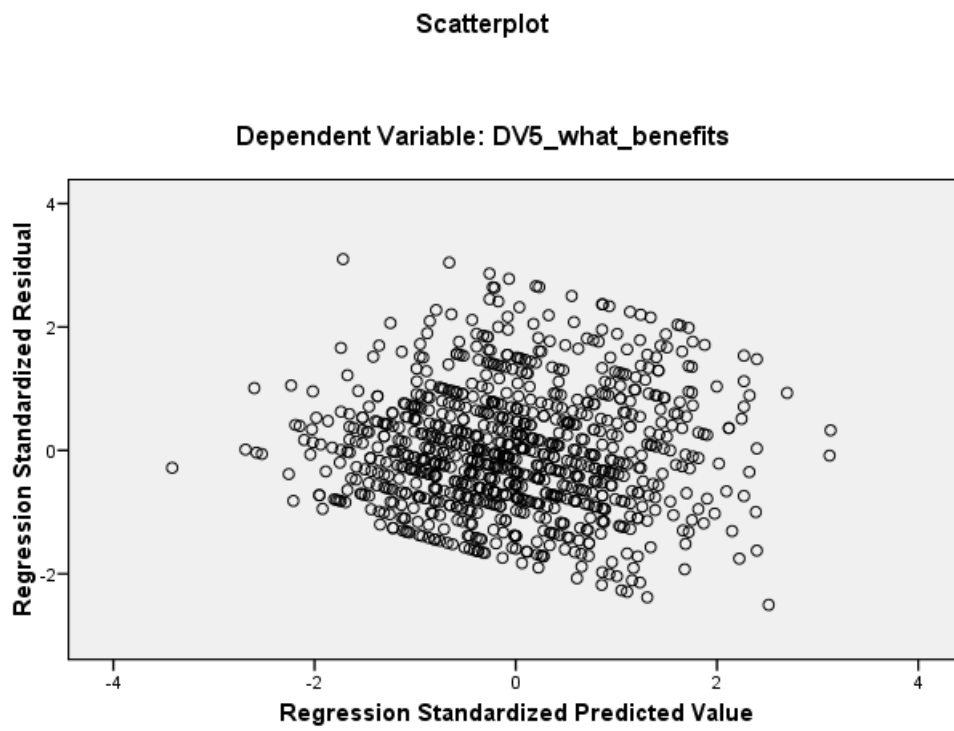
Dependent Variable: DV3_specific_nutrition_att



Scatterplot

Dependent Variable: DV4_who_benefits





Therefore, there appears to be no major violations of the essential assumptions of regression.

Rationale for use of ANOVAs

ANOVAs were chosen to investigate the relationship between dependent variables and independent variables. ANOVA is a comparison of means, and there are alternative simpler tests which can also compare means, in the relevant context.

1. Z-tests are a one-sample test, which compare the mean of a sample to the mean of a population, and are appropriate when the population standard deviation is known. As the current investigation sought to compare means across various levels of the sample, z-tests were not considered appropriate
2. Independent samples t-test can be conducted when the independent variable is dichotomous (i.e. has only two categories)¹⁸. When there are two categories being compared, the two-tailed t-test statistic is equivalent to the F-test statistic (from ANOVA) and as such is measuring the same thing. The degrees of freedom in the F-test are (n-1), where n is the number of categories. Therefore, when there are two categories, there is one degree of freedom in the F-test, which is equal to the two-tailed t-test statistic. When the levels of comparison increase (i.e. greater than two as is the case in income quartiles) the t-test is no longer appropriate, so to maintain consistency, one-way ANOVAs were performed.

Like all statistical analyses, ANOVA has several assumptions that should be reasonably met to allow reliable and interpretable results. The key assumptions of ANOVA are:

1. Cases are independent
2. Normality of independent variables
3. Homogeneity of variance
4. Factor variable values should be integers, and the dependent variable should be quantitative (interval level of measurement).

Regression

To conduct the Multiple Linear Regression analyses, variable manipulation was required, as an assumption of Multiple Linear Regression is that all independent variables be either interval or ratio scales; however, dichotomous variables (2 level categorical) are also permitted. Therefore, several variables of interest were recoded in to k-1 dummy variables, where k was the number of levels within existing categorical variables. The variables included in all Multiple Regression Analyses are included in Table 77, as is the manipulation required to allow inclusion in the analyses. Please note, as several independent variables were strongly correlated, multicollinearity was assessed, but found not to be relevant. Thus, the independent variables were sufficiently distinct to be included in each analysis.

Factor Analysis

Factor analysis is a data reduction technique, useful in summarising data collected. Factor analysis examines a set of (presumably correlated) variables with the objective of creating a new set of variables that summarises the underlying components (or factors) that exist within the original data¹⁸. Factor analysis is particularly useful in exploratory studies, where there may be no theoretical grounding for grouping sets of items together.

In the current investigation, a form of factor analysis (Principal Components Analysis [PCA]) was conducted to reduce 18 items that were used to measure respondents' motivations for consuming foods. PCA considers the total variance in the data (as opposed to common variance), and is the recommended technique when trying to determine the minimum number of factors/ components that will account for the maximum amount of variance in the data for the purpose of utilising these new factors/components in further analyses¹⁸. The PCA technique reduced the 18 items to six factors which explained the variance in the model sufficiently, whereby the 18 items were no longer necessary. The smaller set of variables/factors identified were subsequently used in the multivariate regression analyses.

For further information on any of these statistical techniques, please consult:

Malhorta, N., Hall, J., Shaw, M., & Oppenheim, P. 2002, *Marketing Research: An Applied Orientation*. Frenchs Forest, NSW: Prentice Hall.

Tabachnick, B.G., & Fidell, L.S. 2007, *Using Multivariate Statistics (5th edn)*. Boston: Pearson/Allyn & Bacon.

9. APPENDIX D: PICTURES OF STIMULI

Breakfast Cereal



Sweet Biscuits



10. APPENDIX E: NUTRITION INFORMATION PANELS, CLAIM INFORMATION AND NUTRIENT PROFILING SCORES

Breakfast Cereal

General information

600g net

Best before 16 December 2007

Lot identification – 6453 4.39

Manufactured and marketed by Bolton Foods, 62 Clarke Road, Wellington New Zealand

For comments and compliments please call customer services on 0800 564 668

Store in a cool, dry place

NUTRITION INFORMATION		
Serves per package: 15		
Serve size: 40g		
	Average quantity per Serve	Average quantity per 100 g
Energy	678kJ	1695kJ
Protein	2.0g	4.9g
Fat, total	1.1g	2.6g
– saturated	0.2g	0.4g
Carbohydrate	34.0g	85.0g
– sugars	10.8g	27.2
Dietary Fibre	4.9g	12.0g
Sodium	12mg	30mg

Ingredients: Corn (65%), sugar, oat bran, barley malt extract, honey, canola oil, salt, flavour, colour

Contains gluten containing cereals

May contain traces of tree nuts.

Claims: 97% fat free
 Increased fibre
 Good source of fibre
 Reduced sugar

Claim conditions: (as proposed in Std 1.2.7)

1. **97 % fat free** (must meet conditions for low fat claim – no more fat than 3 g/100g)
2. **Increased fibre** (food contains at least 25% more fibre compared with reference food; must contain at least 2g fibre, must state identity of reference food, must state the difference between the fibre content of the food and reference food) e.g on front of label state : 30% more fibre compared with ‘ standard *Product B*’
3. **Good source of fibre** – at least 4g fibre/serve
4. **Reduced sugar** - (food contains at least 25% less sugar compared with reference food; must state identity of reference food, must state the difference between the sugar content of the food and reference food) e.g on front of label state : 25% less sugar compared with ‘standard *Product B*’

Nutrient Profiling Scoring Criteria (as in Preliminary Final Assessment Report)

Category 2 food: Baseline Points

Energy	5
Saturated fatty acids	0
Total sugars	6
Sodium	0
Total baseline =	11

Modifying Points:

Fruit/veg/nuts/legumes 0

Protein cannot be added as baseline is not < 11

Fibre 5

Final Score = 11-5 = 6 (**product ineligible** (score must be < 4 to be eligible))

NOTE: under the revised NPSC, protein points could be counted (which would be 3)

Final Score = 11-3-5 = 3 (hence the product **would be eligible** under NPSC recommended in the Final Assessment Report)

Note:

- NIP scores are based on NPSC as at PFAR.
- The experimental design required one NIP only for all claims, including a ‘good source of fibre’ claim for both products. This meant that the NPSC score would not be particularly high due to the inclusion of fibre.

Fruit and Cereal SnackGeneral information

240g net

Best before 16 December 2007

Lot identification – 3268 2.34

Manufactured and marketed by Clarke Foods, 62 Wilford St, Auckland New Zealand

For comments and compliments please call customer services on 0800 269 664

Store in a cool dry place.

NUTRITION INFORMATION		
Serves per package: 6		
Serve size: 40g		
	Average quantity per Serve	Average quantity per 100 g
Energy	577kJ	1444kJ
Protein	2.5g	6.2g
Fat, total	4.1g	10.2g
– saturated	0.4g	1.1g
Carbohydrate	20.9g	52.3g
– sugars	12.8g	31.9g
Dietary Fibre	4.1g	10.3g
Sodium	10mg	25mg

Ingredients: cereals (wheat, oats, rice), mixed fruit pieces (15%) (paw paw, apricot, mango), rice extract, canola oil, egg, raising agent [E500], vanilla flavour

May contain traces of peanut, other nut or sesame

Contains gluten containing cereals

Claims: Low in saturated fat
 Reduced fat
 Good source of fibre
 No added sugar

Claim conditions: (as proposed in Std 1.2.7)

1. **Low in saturated fat** (product contains no more than 1.5 g/100g)
2. **Reduced fat** (food contains at least 25% less fat compared with reference food; must state identity of reference food, must state the difference between the fat content of the food and reference food) e.g on front of label state : 30% less fat compared with 'standard *Product B*'
3. **Good source of fibre** – at least 4g fibre/serve
4. **No added sugar** – contains no added 'sugar', honey, malt, malt extracts, concentrated fruit juice, deionized fruit juice

Nutrient Profiling Scoring Criteria (as in Preliminary Final Assessment Report)

Category 2 food: Baseline Points

Energy	4
Saturated fatty acids	0
Total sugars	7
Sodium	0
Total baseline =	11

Modifying Points:

Fruit/vege/nuts/legumes	0
Protein	cannot be added as baseline is not < 11
Fibre	5
Final Score = 11-5 =	6 (product ineligible (score must be < 4 to be eligible))

NOTE: under the revised NPSC, protein points could be counted (which would be 3)

Final Score = $11 - 3 - 5 = 3$ (hence the product **would be eligible** under NPSC recommended in the Final Assessment Report)

11. APPENDIX F: QUESTIONNAIRE**R04784 NUTRIENT CONTENT CLAIM PT2 - RECALL MAIN SURVEY July, 2007**

13/07/2007 13:47

**All
ANSWER
Categories**

Good [Morning/ Afternoon/ Evening]. My name is (SAY NAME) from Roy Morgan Research. May I please speak to #3. #/the person in your household who agreed to take part in our study//?

Thank you for agreeing to participate in our research project on food choices, on behalf of Food Standards Australia New Zealand.

Firstly, could I just check that you received the package that we mailed to you?

YES

NO

IF NO, CHECK ADDRESS AND REAPPOINT:

STREET: [%STREET]

SUBURB: [%SUBURB]

POSTCODE: [%PCODE]

IF YES: Have you made-up the boxes that we sent and are you able to find them at the moment?

IF CANT FIND OR HAVEN'T YET MADE THEM INTO BOXES, REAPPOINT.

IF NECESSARY: It will only take about 3-4 minutes to make the boxes up.

IF NECESSARY: The answers you give me will remain strictly confidential. There are no right or wrong answers, it is purely your opinion we are interested in.

IF ASK WHO THE CLIENT, HIT ESC H AND SELECT CLIENT\$H.

IF RESPONDENT ASKS FOR MORE INFO ABOUT THIS PROJECT OR ROY MORGAN RESEARCH, HIT ESC H AND SELECT RMR\$H.

IF RESPONDENT HAS CONCERNS ABOUT PRIVACY ISSUES, HIT ESC H AND SELECT PRIVACY\$H

#/

APPOINTMENT COMMENTS

**=*

// #196.

SECTION A: INITIAL PRODUCT EVALUATION

[Single]

A1. Thinking about food and grocery shopping in your household. Would you say you are responsible for #/all or most, about half, less than half or none/none, less than half, about half, or all or most/ of the food and grocery shopping?



- | | |
|---|----------------|
| 1 | ALL OR MOST |
| 2 | ABOUT HALF |
| 3 | LESS THAN HALF |
| 4 | NONE |

Before I read the next set of questions, please write down the numbers 1 through to 7 evenly spaced. Keeping these in front of you will help you answer the questions.

INTERVIEWER NOTE: PLEASE CONFIRM IF THEY HAVE FINISHED WRITING.

HALF OF RESPONDENTS RANDOMLY ALLOCATED TO CEREAL FIRST AND HALF ALLOCATED TO BISCUIT FIRST.

[Single]

A2. Assuming this cereal has a cost that is similar to other breakfast cereals. Using a scale of 1 to 7 where #/1 is not at all likely and 7 is very likely/7 is very likely and 1 is not at all likely/, how likely is it that you would purchase this cereal?



- | | |
|----|-----------------------------|
| 1 | 1 - NOT AT ALL LIKELY |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - VERY LIKELY |
| 97 | DO NOT EAT - NOT APPLICABLE |
| 99 | DON'T KNOW |

[Single]

A4. Assuming these biscuits have a cost that is similar to other sweet biscuits. Using a scale of 1 to 7 where #/1 is not at all likely and 7 is very likely/7 is very likely and 1 is not at all likely/, how likely is it that you would purchase these biscuits?



1	1 - NOT AT ALL LIKELY
2	2
3	3
4	4
5	5
6	6
7	7 - VERY LIKELY
97	DO NOT EAT - NOT APPLICABLE
99	DON'T KNOW

RANDOM ORDER 1 OF QUESTIONNING

The next question is based on the cereal box so please pick it up first. Look at the box for as long as you normally would in a store situation.

QUESTION A2 WILL BE ASKED HERE

Next please pick up the biscuit box and look at the box for as long as you normally would in a store situation.

QUESTION A4 WILL BE ASKED HERE

RANDOM ORDER 2 OF QUESTIONNING

The next question is based on the biscuit box so please pick it up first. Look at the box for as long as you normally would in a store situation.

QUESTION A4 WILL BE ASKED HERE

Next please pick up the cereal box and look at the box for as long as you normally would in a store situation.

QUESTION A2 WILL BE ASKED HERE

ENDIF

SECTION B: PRODUCT EVALUATIONS

SECTION B IS REPEATED FOR EACH PRODUCT-CLAIM MODEL SHOWN TO PARTICIPANTS, REMAINING SECTIONS ARE ASKED ONLY ONCE OF EACH PARTICIPANT.

HALF OF RESPONDENTS RANDOMLY ALLOCATED TO CEREAL FIRST AND HALF ALLOCATED TO BISCUIT FIRST.

QUESTIONS B7 B8 B17 AND B18 APPEARS HERE, BUT WILL ONLY BE ASKED LATER.

[Single]

B7 1. Women



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B7 2. Men



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B7 3. Children



- 1 YES

- 2 NO
- 3 UNSURE

[Single]

B7 4. Pregnant women



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B7 5. Older people



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B7 6. People trying to lose weight



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B7 7. People with particular health problems



- 1 YES
- 2 NO

3 UNSURE

[Single]

B17 1. Women



1 YES

2 NO

3 UNSURE

[Single]

B17 2. Men



1 YES

2 NO

3 UNSURE

[Single]

B17 3. Children



1 YES

2 NO

3 UNSURE

[Single]

B17 4. Pregnant women



1 YES

2 NO

3 UNSURE

[Single]

B17 5. Older people



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B17 6. People trying to lose weight



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B17 7. People with particular health problems



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 1. Maintenance of healthy bones



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 2. A reduced risk of heart disease



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 3. A reduced risk of cancer



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 4. Assistance in heart health



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 5. A reduced risk of contracting a cold or flu



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 6. A reduced risk of diabetes



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 7. Reduced fat intake



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 8. Reduced sugar intake



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 9. Increased fibre intake



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 10. Maintenance of healthy digestive function



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B8 11. Maintenance of healthy veins and arteries



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 1. Maintenance of healthy bones



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 2. A reduced risk of heart disease



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 3. A reduced risk of cancer



- 1 YES

- 2 NO
- 3 UNSURE

[Single]

B18 4. Assistance in heart health



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 5. A reduced risk of contracting a cold or flu



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 6. A reduced risk of diabetes



- 1 YES
- 2 NO
- 3 UNSURE

[Single]

B18 7. Reduced fat intake



- 1 YES
- 2 NO

3 UNSURE

[Single]

B18 8. Reduced sugar intake



1 YES

2 NO

3 UNSURE

[Single]

B18 9. Increased fibre intake



1 YES

2 NO

3 UNSURE

[Single]

B18 10. Maintenance of healthy digestive function



1 YES

2 NO

3 UNSURE

[Single]

B18 11. Maintenance of healthy veins and arteries



1 YES

2 NO

3 UNSURE

[Single]

B1. Thinking about the NUTRITION LEVEL of the cereal. Using a scale of 1 to 7 where #/1 is poor and 7 is good/7 is good and 1 is poor/,how would you rate the nutrition level offered by the cereal?



1	1 - POOR
2	2
3	3
4	4
5	5
6	6
7	7 - GOOD
99	DON'T KNOW

[Single]

B2. Thinking about the NUTRITION CONTENT of the cereal. Using a scale of 1 to 7 where #/1 is unfavourable and 7 is favourable/ 7 is favourable and 1 is unfavourable/, what is your overall attitude towards the nutrition content of the cereal?



1	1 - UNFAVOURABLE
2	2
3	3
4	4
5	5
6	6
7	7 - FAVOURABLE
99	DON'T KNOW

[Single]

B4. Thinking about the nutrition LEVEL of the cereal when COMPARED WITH other breakfast cereal on the market. Using a scale of 1 to 7 where #/1 is poor and 7 is good/7 is good and 1 is poor/. How would you rate the nutrition level of the cereal compared with other breakfast cereal on the market?



1	1 - POOR
2	2
3	3
4	4
5	5
6	6
7	7 - GOOD
99	DON'T KNOW

[Single]

B5. Thinking about the nutrition CONTENT of the cereal when COMPARED WITH other breakfast cereal on the market. Using a scale of 1 to 7 where #/1 is unfavourable and 7 is favourable/7 is favourable and 1 is unfavourable/. What is your overall attitude towards the nutrition content of the cereal compared with other breakfast cereal on the market?



1	1 - UNFAVOURABLE
2	2
3	3
4	4
5	5
6	6
7	7 - FAVOURABLE
99	DON'T KNOW

B7. I am now going to read out some types of people. For each one, please tell me whether you think they would or would not benefit by eating this cereal as a regular part of their diet?

QUESTIONS B7 1 TO B7 7 WILL BE RANDOMIZED

QUESTIONS B8 1 TO B8 11 WILL BE ASKED HERE

B8. I will now read out some nutrition and health benefits. For each benefit, please tell me if it would or would not result from eating this cereal as a regular part of the diet?

QUESTIONS B8 1 TO B8 11 WILL BE RANDOMIZED

QUESTIONS B8 1 TO B8 11 WILL BE ASKED HERE

[Single]

B11. Thinking about the NUTRITION LEVEL of the biscuits. Using a scale of 1 to 7 where #/1 is poor and 7 is good/7 is good and 1 is poor/,how would you rate the nutrition level offered by the biscuits?



- | | |
|----|------------|
| 1 | 1 - POOR |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - GOOD |
| 99 | DON'T KNOW |

[Single]

B12. Thinking about the NUTRITION CONTENT of the biscuits. Using a scale of 1 to 7 where #/1 is unfavourable and 7 is favourable/ 7 is favourable and 1 is unfavourable/, what is your overall attitude towards the nutrition content of the biscuits?



- | | |
|----|------------------|
| 1 | 1 - UNFAVOURABLE |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - FAVOURABLE |
| 99 | DON'T KNOW |

[Single]

B14. Thinking about the nutrition LEVEL of the biscuits when COMPARED WITH other sweet biscuits on the market. Using a scale of 1 to 7 where #/1 is poor and 7 is good/7 is good and 1 is poor/. How would you rate the nutrition level of the biscuits compared with other sweet biscuits on the market?



1	1 - POOR
2	2
3	3
4	4
5	5
6	6
7	7 - GOOD
99	DON'T KNOW

[Single]

B15. Thinking about the nutrition CONTENT of the biscuits when COMPARED WITH other sweet biscuits on the market. Using a scale of 1 to 7 where #/1 is unfavourable and 7 is favourable/7 is favourable and 1 is unfavourable/. What is your overall attitude towards the nutrition content of the biscuits compared with other sweet biscuits on the market?



1	1 - UNFAVOURABLE
2	2
3	3
4	4
5	5
6	6
7	7 - FAVOURABLE
99	DON'T KNOW

B17. I am now going to read out some types of people. For each one, please tell me whether you think they would or would not benefit by eating these biscuits as a regular part of their diet?

QUESTIONS B17 1 TO B17 7 WILL BE RANDOMIZED

QUESTIONS B18 1 TO B18 11 WILL BE ASKED HERE

B18. I will now read out some nutrition and health benefits. For each benefit, please tell me if it would or would not result from eating these biscuits as a regular part of the diet?

QUESTIONS B18 1 TO B18 11 WILL BE RANDOMIZED**QUESTIONS B18 1 TO B18 11 WILL BE ASKED HERE**

[Single]

B5B. Why did you give that rating? (What other reasons? Any other reasons?)



- 1 NUTRITION INFORMATION/ NUTRITION PANEL/ DIETARY CONTENT LOOKED AT/ READ/ LOOKS GOOD E.G. QUANTITY PER SERVE/ PER 100G OF ENERGY, CARBOHYDRATES, FAT, SUGARS, FIBRE, SODIUM, PROTEIN
- 2 NUTRITION CLAIMS ON PACKAGE I.E 97% FAT FREE INCREASED FIBRE, GOOD SOURCE OF FIBRE, REDUCED SUGAR
- 3 INGREDIENTS GOOD/ INCLUDES BARLEY/ OAT BRAN/ CORN
- 4 CARBOHYDRATE HIGH
- 5 ENERGY HIGH
- 6 FAT/ SATURATED FAT LOW
- 7 FIBRE HIGH/ GOOD AMOUNT
- 8 SODIUM LOW/ REASONABLE
- 9 SUGAR LOW/ NOT TOO MUCH
- 10 PICTURE ON THE PACKAGE IS ATTRACTIVE/ GOOD
- 11 SIMILAR TO OTHERS ON THE MARKET
- 12 BETTER/ MORE NUTRITIOUS ONES AVAILABLE ON THE MARKET
- 13 LOOKS LIKE A 'LIGHT' CEREAL
- 14 CARBOHYDRATE LOW
- 15 ENERGY LOW
- 16 FAT/ SATURATED FAT HIGH
- 17 FIBRE LOW
- 18 FRUIT/ NUTS NOT INCLUDED
- 19 FLAKES ONLY
- 20 SODIUM HIGH
- 21 SUGAR HIGH
- 97 Openend OTHER (SPECIFY)
- 98 CAN'T SAY
- 99 NO REASON

[Single]

B5B. Why did you give that rating? (What other reasons? Any other reasons?)



- | | |
|----|---|
| 1 | NUTRITION INFORMATION/ NUTRITION PANEL/ DIETARY CONTENT LOOKED AT/ READ/ LOOKS GOOD E.G. QUANTITY PER SERVE/ PER 100G OF ENERGY, CARBOHYDRATES, FAT, SUGARS, FIBRE, SODIUM, PROTEIN |
| 2 | NUTRITION CLAIMS ON PACKAGE I.E NO ADDED SUGAR, REDUCED FAT, LOW IN SATURATED FAT, GOOD SOURCE OF FIBRE |
| 3 | INGREDIENTS GOOD, NEEDED/ INCLUDES WHEAT/ OATS/ RICE |
| 4 | FRUIT/ CEREAL INCLUDED |
| 5 | CARBOHYDRATE HIGH |
| 6 | ENERGY HIGH |
| 7 | FAT/ SATURATED FAT LOW |
| 8 | FIBRE HIGH/ GOOD AMOUNT |
| 9 | SODIUM LOW/ REASONABLE |
| 10 | SUGAR LOW/ NOT TOO MUCH |
| 11 | PICTURE ON THE PACKAGE IS ATTRACTIVE/ GOOD |
| 12 | NUTRITION CONTENT OF BISCUITS DOESN'T MATTER TO ME - THEY ARE A TREAT FOOD |
| 13 | LOOKS HOME MADE |
| 14 | SIMILAR TO OTHERS ON THE MARKET |
| 15 | BETTER/ MORE NUTRITIOUS ONES AVAILABLE IN THE MARKET |
| 16 | CARBOHYDRATE LOW |
| 17 | ENERGY LOW |
| 18 | FAT/ SATURATED FAT HIGH |
| 19 | FIBRE LOW |
| 20 | SODIUM HIGH |
| 21 | SUGAR HIGH |
| 97 | Openend OTHER (SPECIFY) |
| 98 | CAN'T SAY |
| 99 | NO REASON |

RANDOM ORDER 1 OF QUESTIONNING

The next set of questions are based on what you see on the cereal box so please have that in front of you. Please also place the biscuit box out of sight.

QUESTION B1 TO B5 WILL BE ASKED HERE

QUESTION B7 TO B8 WILL BE ASKED HERE

QUESTION B8 12 DELETED

QUESTIONS IN SECTION B REPEATED FOR OTHER PRODUCT-CLAIM MODEL

The next set of questions are based on what you see on the biscuit box, so please place that in front of you now. Please also place the cereal box out of sight. The same scale with the numbers 1 through to 7 will help you answer the questions.

QUESTION B11 TO B15 WILL BE ASKED HERE

QUESTION B5B WILL BE ASKED HERE

QUESTION B17 TO B18 WILL BE ASKED HERE

QUESTION B18 12 DELETED

RANDOM ORDER 2 OF QUESTIONNING

The next set of questions are based on what you see on the biscuit box so please have that in front of you. Please also place the cereal box out of sight.

QUESTION B11 TO B15 WILL BE ASKED HERE

QUESTION B17 TO B18 WILL BE ASKED HERE

QUESTION B18 12 DELETED

QUESTIONS IN SECTION B REPEATED FOR OTHER PRODUCT-

CLAIM MODEL

The next set of questions are based on what you see on the cereal box, so please place that in front of you now. Please also place the biscuit box out of sight. The same scale with the numbers 1 through to 7 will help you answer the questions.

QUESTION B1 TO B5 WILL BE ASKED HERE**QUESTION B5B WILL BE ASKED HERE****QUESTION B7 TO B8 WILL BE ASKED HERE****QUESTION B8 12 DELETED****ENDIF****SECTION C: INFORMATION USED TO EVALUATE PRODUCT****ANSWERS TO C1 WILL BE RANDOMIZED**

[Multiple] {Spread:10 Random}

C1. Thinking about the ratings from 1 to 7 you have given today. You may or may not have used different types of information to decide on your ratings. Did you use... READ OUT

IF OTHER, HIGHLIGHT OTHER AND TYPE IN RESPONSE
HIGHLIGHT ALL MENTIONED



- 1 Your general knowledge
- 2 The list of ingredients mentioned in the box on the side of the pack
- 3 Claims about the product on the pack. Some examples of claims are "high in fibre", "low in fat", "no added sugar", etc.
- 4 The nutrition information panel which is the table on a package that shows the quantities of various nutrients the food contains
- 5 Pictures on the pack
- 6 Brand name
- 7 Presence of allergens, for example, statements like 'may contain traces of peanuts'

- 8 Where the product was made
- 9 The best before date
- 10 Descriptions of the product, such as "taste-tempting crumbly baked cereal biscuit" or "tempting blend of oat bran, barley malt and naturally sun-ripened corn"
- 98 Fixed Single (DO NOT READ OUT) DON'T KNOW
- 99 Fixed Single (DO NOT READ OUT) NONE OF ABOVE/ DID NOT USE ANY INFORMATION

QUESTION C2 DELETED

SECTION D: CONSUMER NUTRITION KNOWLEDGE

D1. I am going to read out a series of statements about food and nutrition. Please indicate if you think each statement is true or false or if you are unsure.

QUESTIONS D1 1 TO D1 8 WILL BE RANDOMIZED

[Single]

D1 1. Milk and milk products like cheese and yoghurt are the best sources of iron



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 2. Meat, chicken, fish and eggs should make up the largest part of our diet



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 3. A diet high in fruits and vegetables and low in salt may help prevent high blood pressure



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 4. Salt-reduced foods are healthier than foods containing a lot of salt



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 5. Dietary fibre can help prevent constipation



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 6. Meat, chicken and fish are the best sources of calcium



- 1 TRUE
- 2 FALSE
- 3 NOT SURE

[Single]

D1 7. Saturated fats are found in butter



- | | |
|---|----------|
| 1 | TRUE |
| 2 | FALSE |
| 3 | NOT SURE |

[Single]

D1 8. A diet high in saturated fat can help prevent heart disease



- | | |
|---|----------|
| 1 | TRUE |
| 2 | FALSE |
| 3 | NOT SURE |

SECTION E: CONSUMER MOTIVATIONS

*I would now like you to write down another scale. Write down the numbers 1 to 4 where #/1 is not at all important, 2 is a little important, 3 is moderately important and 4 is very important/4 is very important, 3 is moderately important, 2 is a little important and 1 is not at all important.
I will read out some statements and using this scale please rate how important each statement is to you for the food that you eat on a typical day.*

INTERVIEWER NOTE: READ OUT 'How important is it to you that the food you eat on a typical day' ONCE AT THE START AND AGAIN HALF WAY THROUGH THE LIST

QUESTIONS E1 1 TO E1 35 WILL BE RANDOMIZED.

QUESTIONS E1 3 TO E1 6 E1 9 TO E1 12 E1 15 TO E1 17 E1 20 E1 21 E1 24 E1 27 E1 30 E1 33 E1 36 DELETED

[Single]

E1 1. (How important is it to you that the food you eat on a typical day)

Contains a lot of vitamins and minerals?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
|---|----------------------|

- | | |
|---|----------------------|
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 2. (How important is it to you that the food you eat on a typical day)

Keeps me healthy?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 7. (How important is it to you that the food you eat on a typical day)

Helps me cope with stress?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 8. (How important is it to you that the food you eat on a typical day)

Helps me to cope with life?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 13. (How important is it to you that the food you eat on a typical day)

Is easy to prepare?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 14. (How important is it to you that the food you eat on a typical day)

Can be cooked very simply?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 18. (How important is it to you that the food you eat on a typical day)

Smells nice?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 19. (How important is it to you that the food you eat on a typical day)

Looks nice?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 22. (How important is it to you that the food you eat on a typical day)

Contains no additives?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 23. (How important is it to you that the food you eat on a typical day)

Contains natural ingredients?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 25. (How important is it to you that the food you eat on a typical day)

Is not expensive?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 26. (How important is it to you that the food you eat on a typical day)

Is cheap?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 28. (How important is it to you that the food you eat on a typical day)

Is low in calories?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 29. (How important is it to you that the food you eat on a typical day)

Helps me control my weight?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E1 31. (How important is it to you that the food you eat on a typical day)

Is what I usually eat?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |

- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 32. (How important is it to you that the food you eat on a typical day)

Is familiar?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 34. (How important is it to you that the food you eat on a typical day)

Comes from a country I approve of politically?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- 1 NOT AT ALL IMPORTANT
- 2 A LITTLE IMPORTANT
- 3 MODERATELY IMPORTANT
- 4 VERY IMPORTANT

[Single]

E1 35. (How important is it to you that the food you eat on a typical day)

Has the country of origin clearly marked?

(Is it #/not at all important, a little important, moderately important or very important/very important, moderately important, a little important or not at all important/?)



- | | |
|---|----------------------|
| 1 | NOT AT ALL IMPORTANT |
| 2 | A LITTLE IMPORTANT |
| 3 | MODERATELY IMPORTANT |
| 4 | VERY IMPORTANT |

[Single]

E2. Thinking now about the nutritional information on food packages. Using a scale of 1 to 7 where #/1 is not at all interested and 7 is very interested/7 is very interested and 1 is not at all interested/, how interested are you in nutritional information on food packages?



- | | |
|----|---------------------------|
| 1 | 1 - NOT AT ALL INTERESTED |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - VERY INTERESTED |
| 99 | DON'T KNOW |

[Single]

E3. Thinking about nutrition labels on products. Using a scale of 1 to 7 where #/1 is not at all and 7 is very much/7 is very much and 1 is not at all/, how much do you care about reading nutrition labels?



- | | |
|----|----------------|
| 1 | 1 - NOT AT ALL |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - VERY MUCH |
| 99 | DON'T KNOW |

SECTION F: CONSUMER CONFIDENCE AND TRUST

Using a scale of 1 to 7 where #1 is strongly disagree and 7 is strongly agree/7 is strongly agree and 1 is strongly disagree/, how much do you agree or disagree with the following statements?

[Single]

F1. I trust nutrition claim information shown on the FRONT of food packages. Some examples of claims are high in fibre, low in fat, no added sugar.



- | | |
|----|-----------------------|
| 1 | 1 - STRONGLY DISAGREE |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - STRONGLY AGREE |
| 99 | DON'T KNOW |

[Single]

F2. I trust the nutrition information shown in the Nutrition Information Panel which is the table showing quantities of nutrients on the back or side of food packages.



- | | |
|----|-----------------------|
| 1 | 1 - STRONGLY DISAGREE |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - STRONGLY AGREE |
| 99 | DON'T KNOW |

Thinking about nutrition claims made about food on food packaging. Now using a NEW scale of 1 to 7 where #1 is no regulation and 7 is high level of regulation/7 is high level of regulation and 1 is no regulation/.

[Single]

F3. To what degree do you think nutrition claims on food packaging ARE REGULATED?



- | | |
|----|------------------------------|
| 1 | 1 - NO REGULATION |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - HIGH LEVEL OF REGULATION |
| 99 | DON'T KNOW |

[Single]

F4. To what degree do you think nutrition claims about food made on food packaging SHOULD BE REGULATED?



- | | |
|----|------------------------------|
| 1 | 1 - NO REGULATION |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 - HIGH LEVEL OF REGULATION |
| 99 | DON'T KNOW |

SECTION G: CONSUMER PROFILING

Finally, to make sure we are interviewing a cross section of people, I would like to ask you a few questions about your household and yourself.

[Multiple] {Spread:10 }

G2. Please indicate if any of the following from the list that I read out, apply to you or any members of your household?
READ OUT.

IF OTHER, HIGHLIGHT OTHER AND TYPE IN RESPONSE
HIGHLIGHT ALL MENTIONED

- | | | |
|----|------------------|--|
| 1 | | Food allergy |
| 2 | | Other health concerns such as asthma, diabetes, migraine |
| 3 | | Digestive concerns such as coeliac disease, irritable bowel syndrome |
| 4 | | Health concerns such as heart disease, high blood pressure or cholesterol |
| 5 | | On a specific diet |
| 6 | | Watching my weight or others' weight generally |
| 7 | | Watching my health or others' health generally |
| 8 | | Pregnancy or breast feeding |
| 9 | | Religious or ethical beliefs that influence dietary choices, vegetarian or vegan |
| 97 | Fixed
Openend | (DO NOT READ) OTHER (SPECIFY) |
| 98 | Fixed
Single | (DO NOT READ) PREFER NOT TO ANSWER |
| 99 | Fixed
Single | (DO NOT READ) NO, NONE |

[Multiple] {Spread:10 }

G2B. Are there any other conditions or circumstances that may apply to you or any members of your household?

IF YES, HIGHLIGHT YES AND TYPE IN RESPONSE
HIGHLIGHT ALL MENTIONED

- | | | |
|----|---------|---------------------------|
| 97 | Openend | YES - PLEASE SPECIFY |
| 98 | Single | CAN'T SAY/ UNSURE |
| 99 | Single | NONE - NO OTHER CONDITION |

G3. Including yourself, how many people living in your household belong to the following age groups?

[Quantity] {Min: 0, Max: 102, Default Value:102Refusal Code:101 }

G3 1. 18 years and over.
IF REFUSES, ESC \.
IF CAN'T SAY, ESC D.

[Quantity] {Min: 0, Max: 102, Default Value:102Refusal Code:101}

G3 2. 15 to 17 years.

IF REFUSES, ESC \.

IF CAN'T SAY, ESC D.

[Quantity] {Min: 0, Max: 102, Default Value:102Refusal Code:101}

G3 3. Less than 15 years.

IF REFUSES, ESC \.

IF CAN'T SAY, ESC D.

[Single]

G4. How much attention do you pay to keeping a healthy diet, would you say #/a very high amount, a high amount, a medium amount, a low amount, a very low amount or none/none, a very low amount, a low amount, a medium amount, a high amount or a very high amount/?



- | | |
|----|-------------------------------|
| 1 | VERY HIGH AMOUNT OF ATTENTION |
| 2 | HIGH AMOUNT OF ATTENTION |
| 3 | MEDIUM AMOUNT OF ATTENTION |
| 4 | LOW AMOUNT OF ATTENTION |
| 5 | VERY LOW AMOUNT OF ATTENTION |
| 99 | NO ATTENTION |

[Single]

G5. How many serves of vegetables do you usually eat each day? One serve amounts to half a cup of cooked vegetables, or one cup of salad vegetables.



- | | |
|----|----------------------|
| 1 | 1 SERVE OR LESS |
| 2 | 2 SERVES |
| 3 | 3 SERVES |
| 4 | 4 SERVES |
| 5 | 5 SERVES |
| 6 | 6 SERVES OR MORE |
| 99 | DON'T EAT VEGETABLES |

[Single]

G6. How many serves of fruit do you usually eat each day? One serve amounts to one medium piece of fresh fruit, two small pieces of fresh fruit, half a cup of canned fruit, or half a cup of fruit juice.

INTERVIEWER NOTE: IF ASKED, COUNT ONE LARGE PIECE AS TWO SMALL PIECES. HENCE 4 LARGE PIECES IS EQUIVALENT TO 4 SERVES.



- | | |
|----|------------------|
| 1 | 1 SERVE OR LESS |
| 2 | 2 SERVES |
| 3 | 3 SERVES |
| 4 | 4 SERVES |
| 5 | 5 SERVES |
| 6 | 6 SERVES OR MORE |
| 99 | DON'T EAT FRUIT |

QUESTIONS G7 TO G12 DELETED

[Single]

G13. Are you of Aboriginal or Torres Strait Islander origin?



- | | |
|---|--|
| 1 | NO |
| 2 | YES - ABORIGINAL |
| 3 | YES - TORRES STRAIT ISLANDER |
| 4 | YES - BOTH ABORIGINAL AND TORRES STRAIT ISLANDER |
| 5 | PREFER NOT TO ANSWER |

[Single]

G14. Are you descended from a New Zealand Maori or do you belong to a Pacific Islander ethnic group?



- | | |
|---|--|
| 1 | NO |
| 2 | YES - NZ MAORI DESCENDENT |
| 3 | YES - PACIFIC ISLANDER ETHNICITY |
| 4 | YES - BOTH NZ MAORI AND PACIFIC ISLANDER ETHNICITY |

5 PREFER NOT TO ANSWER

IF AUSTRALIA RESIDENTS (CODE 1 ON SMP), ASK:

[Single]

G15. What level of education is the highest you have attained?



- | | |
|----|---|
| 1 | POSTGRADUATE DEGREE/ GRADUATE DIPLOMA/ GRADUATE CERTIFICATE |
| 2 | BACHELOR DEGREE |
| 3 | ADVANCED DIPLOMA/ DIPLOMA/ CERTIFICATE |
| 4 | YEAR 12 |
| 5 | YEAR 11 |
| 6 | YEAR 10 OR BELOW |
| 97 | Openend OTHER (SPECIFY) |
| 98 | PREFER NOT TO ANSWER |
| 99 | NONE OF THE ABOVE |

ENDIF

IF NEW ZEALAND RESIDENTS (CODE 2 ON SMP), ASK:

[Single]

G16. What level of education is the highest you have attained?

- | | |
|---|---|
| 1 | NO QUALIFICATION/ FOURTH FORM OR LOWER |
| 2 | FIFTH FORM QUALIFICATION/ SCHOOL CERTIFICATE/ NCEA LEVEL 1 |
| 3 | SIXTH FORM QUALIFICATION/ UNIVERSITY ENTRANCE/ NCEA LEVEL 2 |
| 4 | HIGHER SCHOOL QUALIFICATION/ BURSARY/ NCEA LEVEL 3 |
| 5 | VOCATIONAL QUALIFICATION |
| 6 | BACHELOR DEGREE |
| 7 | HIGHER DEGREE |

- 97 Openend OTHER (SPECIFY)
98 PREFER NOT TO ANSWER
99 NONE OF THE ABOVE

ENDIF

ASK EVERYONE

[Single]

G17. What is your household's total annual income before tax?
READ OUT ONLY IF REQUIRED



- 1 NEGATIVE/ NIL INCOME
2 \$1 - \$5,000
3 \$5,001 - \$10,000
4 \$10,001 - \$15,000
5 \$20,001 - \$25,000
6 \$25,001 - \$30,000
7 \$35,001 - \$40,000
8 \$40,001 - \$45,000
9 \$45,001 - \$50,000
10 \$50,001 - \$70,000
11 \$70,001 - \$100,000
12 \$100,001 OR MORE
98 PREFER NOT TO ANSWER

Thank you for your time and assistance. This market research is carried out in compliance with the Privacy Act, and the information you provided will be used only for research purposes.

We are conducting this research on behalf of Food Standards Australia New Zealand.

If you would like any more information about this project or Roy Morgan Research, you can phone us on 1800 337 332

END-OF-QUESTIONNAIRE

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