

**FINAL ASSESSMENT REPORT FOR  
PROPOSAL P293 – NUTRITION, HEALTH & RELATED  
CLAIMS**

**Consumer research supporting the development of the draft Standard**

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## **1. OVERVIEW OF FSANZ COMMISSIONED CONSUMER RESEARCH**

FSANZ has commissioned a series of research projects to inform the development of the draft Standard. The major findings from these studies are briefly summarised below. The findings of studies that were incorporated into earlier stages in the development of the Standard have not been discussed in detail.

### **1.1 Qualitative research on participants' perceptions and use of nutrition, health and related claims on packaged foods and associated advertising material (FSANZ 2005a)**

This was a qualitative study consisting of 69 in-depth interviews to explore participants' perceptions and understanding of nutrition, health and related claims to assist in the development of a quantitative survey. Participants were selected on the basis of their level of health consciousness and also demographic and geographic characteristics. The results of this study are not presented here as it was exploratory in nature and its primary purpose was to develop the quantitative instrument, the findings of which are discussed in the following section.

### **1.2 Quantitative research on consumers' perceptions and use of nutrition, health and related claims on packaged foods (FSANZ 2005b)**

This was a study to gather quantitative baseline data on consumers' perceptions and understanding of nutrition content claims and health claims. The study used an online-survey of 1044 main or joint household shoppers in Australia and New Zealand, exposing participants to a range of mock-up packages or product labels. The data were analysed using descriptive and univariate techniques.

One of the key objectives of the study was to explore the impact of nutrition content, general level and high level health claims on consumers' assessments of who they believe would benefit from consuming the product, health benefits and their purchase intentions. The key findings from this study were:

- between 46% and 90% of respondents were aware of a range of nutrition content, general level and high level health claims, and between 21% and 67% reported they had previously used a range of claims in purchase decisions;
- respondents were able to differentiate between the health benefits of a product with no claim, a nutrition content claim, general level health claims (specifically a nutrition function claim) and a high level health claim such that any claim communicates greater health information compared to a no claim situation (for example between 5% and 10% of respondents reported 'no health benefits' in the presence of nutrition content, general or high level health claim versus 65% of respondents who reported 'no health benefits' when no claim is present), and a high level health claim communicates greater health benefits compared to a general level health claim or nutrition content claim; and

- some respondents reported higher intentions to purchase a product with any claim than the same product with no claim, and respondents did not differentiate purchase intentions between nutrition content claims, general level and high level health claims (for example between 41% and 48% of respondents indicated they were ‘somewhat likely’ or ‘very likely’ to purchase a product with a nutrition content, general level or high level health claim compared to 26% for the same product with no claim).

Other aspects of the research explored the influence of endorsements, implied claims and disclosure statements on assessments of purchase intention, and measures of health benefit.

Both the qualitative and quantitative consumer studies indicated above were incorporated in the Draft Assessment Report. More detailed discussion of these studies is contained in Section 7.2 of the Draft Assessment Report, and extracts from the studies are contained at Attachment 4 of the Draft Assessment Report. The full reports can be accessed from the FSANZ website (Evaluation Report Series<sup>1</sup>).

### **1.3 Qualitative research into the interpretation of %DI and %RDI labelling (TNS Social Research 2007).**

In the Draft Assessment Report FSANZ recommended the use of %DI labelling on foods carrying nutrition content and health claims. It was proposed that %DI for the claimed nutrient and energy be included in the nutrition information panel. Questions over the efficacy of %DI labelling as a risk management strategy were raised and in response FSANZ commissioned a study into consumer understanding and use of %DI labelling.

This study used in-depth interviews with 51 participants from Australia and New Zealand to investigate consumers’ perceptions and potential use of %DI information in making purchase decisions and in making judgements about nutrition content claims. The research took advantage of the existing %RDI information for vitamins and minerals that currently can be presented in nutrition information panels to explore these concepts. The key findings from the study were:

- when exposed to %DI information for the first time participants needed assistance and practice to use the information;
- including %DI for energy and just the claimed nutrient hindered the participants’ ability to use the information to interpret nutrition content claims;
- respondents who are able to use the nutrition information panel were able to check a ‘trade-off nutrient’ in a claim situation, for example checking sugar levels in a product with a claim relating to fat levels;
- %DI for energy was a difficult concept for participants to understand and apply; and

while there was a low level of awareness and understanding of the %DI concept and the interviews demonstrated the positive effects that education may have on understanding.

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<sup>1</sup> (<http://www.foodstandards.gov.au/newsroom/publications/evaluationreportseries/index.cfm>)

The findings from the research informed the approach in the Preliminary Final Assessment Report, where the preferred option was to remove the requirement for %DI labelling on products carrying health and nutrition content claims. More detailed discussion of this study can be found in Section 5.1 of the Preliminary Final Assessment Report and the research report is at Attachment 2 in the Preliminary Final Assessment Report (refer to the Preliminary Final Assessment Report<sup>2</sup>).

#### **1.4 The effect of a disclaimer on consumer interpretation of the ‘no added sugar’ claim (TNS Social Research, 2006).**

In the Draft Assessment Report FSANZ recommended that if a food naturally contains sugars, a *no added sugar* claim should also state that the food contains naturally occurring sugars. FSANZ commissioned a study to explore the efficacy of the disclaimer ‘contains natural sugars’ on products of various levels of sugar to further inform the development of the Standard.

This study used an on-line methodology to assess the impact of the disclaimer ‘contains natural sugar’ on products with the claim *no added sugar*. A between groups study design was used with control respondents being exposed to stimuli with varying natural sugar levels without the disclaimer and the test group being exposed to exactly the same stimuli but with the addition of the disclaimer. Six stimuli were developed at low, medium and high sugar levels as determined by FSANZ. Respondents had access to a realistic nutrition information panel and list of ingredients. The sample for the study was representative of Australian and New Zealand adults. The key findings from the study were:

- the disclaimer had a positive, but small effect, on the interpretation of the *no added sugar* claim;
- there was a high level of recognition that products with a claim of *no added sugar* did in fact contain some sugar; and
- respondents had difficulty in correctly assessing the sugar content of the products.

The findings from the research informed the approach in the Preliminary Final Assessment Report, where the preferred option was to remove the requirement for the disclaimer statement. More detailed discussion of this study can be found in Section 5.5 of the Preliminary Final Assessment Report and the research report is at Attachment 4 in the Preliminary Final Assessment Report.

## **2. CONSUMER RESEARCH ON NUTRITION CONTENT CLAIMS**

### **2.1 Previous FSANZ research findings on nutrition content claims**

Research commissioned by FSANZ (2003a) in 2002 found that 10% of consumers were aware of nutrition content claims when unprompted, and 70% were aware when prompted.

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<sup>2</sup><http://www.foodstandards.gov.au/standardsdevelopment/proposals/proposalp293nutritionhealthandrelatedclaims/index.cfm>

In a 2004 study, 84% of main grocery buyers surveyed reported (prompted) awareness of a specific nutrition content claim featured on a baked beans product mock-up (FSANZ, 2005b).

The research commissioned in 2002 (FSANZ, 2003a) identified difficulties for consumers in correctly interpreting nutrition content claims; approximately half of the respondents misunderstood the meanings of a range of claims tested. Stimuli were shown to participants using 2-dimensional pictorial show cards. Difficulty was experienced when interpreting claims including *no added sugar* on tinned peaches (38% gave correct response), *reduced salt* on baked beans (11% correct), and *94% fat free* on rice crackers (16% correct). When asked if they felt misled, 35%, 28%, and 48% of participants reported feeling misled by each of the three claims, respectively (FSANZ, 2003a). Of consumers aware of nutrition content claims, 37% reported using<sup>3</sup> the claims, and 14% reported using them frequently. Products for which nutrition content claims were reported to be used for were breakfast cereals (58%), dairy products (47%), and oils, butter, margarine and spreads (45%) (FSANZ, 2003a). In 2004, 59% of main grocery buyers reported past use of nutrition content claims such as *high in fibre*, *low in fat* on baked beans (FSANZ, 2005b).

Overall, 63% of respondents in the 2004 FSANZ survey reported that the nutrition content claim tested (*high in fibre*, *low in fat*) would either influence their intention to purchase the product very strongly or strongly (FSANZ, 2005b).

The findings from previous FSANZ research are consistent with other research and reviews of the research literature that demonstrate consumers have difficulties in correctly interpreting nutrition content claims (e.g. Ni Mhurchu and Gorton, 2007; Grunert and Wills, 2007; Cowburn and Stockley, 2003, 2005). They also indicate that consumers report using nutrition content claims in some purchase decisions and that they may have strong influences on those decisions. A key limitation of the previous FSANZ studies is that they were often designed to gauge an understanding of nutrition content claims per se, rather than an understanding in the context of other pack information. Additional research was commissioned in order to measure the impact of nutrition content claims on consumers' product evaluations and purchase intentions in the context of full package information.

## **2.2 Research commissioned for the Final Assessment Report**

In the Draft Assessment Report FSANZ proposed that generic disqualifying criteria would not be applied to nutrition content claims. However, specific disqualifying criteria in relation to certain nutrients could be applied where considered necessary. The approach was considered to be consistent with minimal effective regulation and based on a proportional risk management approach. However the use of %DI information when a claim was made was proposed to assist consumers to assess the nutritional profile of the food (see section 1.3). Following consultation and additional consumer research the risk management option of mandatory %DI labelling was removed. Concerns have been raised by stakeholders in response to both the Draft and Preliminary Final Assessment Reports about the potential for nutrition content claims to mislead consumers through perceptions of enhanced nutritional value resulting in increased purchase and consumption. This has been of particular concern when nutrition content claims are on foods considered to be of lower nutritional value.

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<sup>3</sup> The survey did not specify types of uses and it has been assumed that in 'using' a nutrition content claim the consumer had used the information towards a purchase decision.

To address these concerns FSANZ commissioned additional consumer research to investigate the effects of nutrition content claims on consumers' perceptions of nutritional value and purchase intention. One study used an experimental design to measure the impact of nutrition content claims on consumer evaluations of products and self-reported intention to purchase. The second study explored the use of nutrition content claims by consumers in a real world shopping environment. In both cases full package information was available for consumers to use.

### **2.2.1 An investigation into the impact of nutrition content claims on packaging in relation to consumer purchase intention, nutrition attitude and health benefits. (Roy Morgan Research, 2008)**

The objectives of the study were to:

- investigate the impact of nutrition content claims on consumer's product evaluations and purchase intentions of products of lower nutritional quality; and
- determine which factors (e.g. personal, socio-demographic, and cognitive) are relevant in these evaluations.

#### *2.2.1.1 Methodology*

The study adopted an experimental design with 3D mock-packages as stimuli in order to isolate the effect of nutrition content claims on consumer's product evaluations and self-reported intention to purchase. The products used as stimuli were a breakfast cereal and a sweet biscuit. Five versions of each product were developed and each were identical except for the inclusion of a different nutrition content claim on the lower right-hand side of the front of the package. Four content claims relevant to each product, and used by food manufacturers, were used and the fifth was a control with no claim. The claims used were:

- Breakfast cereal<sup>4</sup>: 97% Fat Free, Increased Fibre, Good Source of Fibre, Reduced Sugar;
- Sweet biscuits<sup>5</sup>: Low in Saturated Fat, Reduced Fat, Good Source of Fibre, No Added Sugar,

The mock-packages were as realistic as possible allowing a more realistic response to the overall product to be measured than would be expected from simpler stimuli such as show cards. The stimuli were designed by a graphic designer and conveyed full package information, including mandated nutritional labelling and any other information manufacturers would provide on a package. The values in the nutrition information panel were calculated so that the product would not meet the nutrition profiling scoring criteria as specified in the Preliminary Final Assessment Report, that is, the stimuli used were of products considered to be of lower nutritional quality. The nutrition panel information and ingredient list were accurate and reflected products currently on the market.

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<sup>4</sup> The breakfast cereal resembled a cereal flake type product.

<sup>5</sup> The sweet biscuit resembled a fruit based home-style cookie.

Adults were recruited to the study through a telephone interview and a representative sample of Australia and New Zealand adults was achieved. Once recruited, respondents were mailed one each of the breakfast cereal and the sweet biscuit stimuli. A telephone survey was subsequently conducted with the recruited sample (N=1060).

The survey sought information on a range of socio-demographic, cognitive and behavioural measures. There were five key evaluation measures that were used to measure the impact of nutrition content claims:

- 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 product in the context of other breakfast cereals);
- number of types of people perceived to benefit from consuming the product; and
- number of types of health benefits perceived to accrue from consuming the product.

Analyses were carried out to determine if those who received the control mock package (the package without a nutrition content claim) were more likely to score the product in each of the five evaluation measures differently to those who received a mock package with a nutrition content claim. The design and implementation of the study did not draw attention to the nutrition content claim, rather respondents were asked to evaluate the product in the context of full package information – as provided for in a real-world shopping environment.

Analyses were carried out using analysis of variance to test for significant differences in product evaluations between those exposed to a nutrition content claim and those exposed to a control package. The research report was peer reviewed. The reviewers confirmed the study was robust and produced reliable results. However the reviewers cautioned against over-interpretation of the findings and noted the limitations of generalising from an experimental situation to real-world shopping environments. Questions were also raised about the appropriateness of some statistical tests. In response FSANZ commissioned the Monash Institute of Health Service Research to re-analyse the data and using generalised linear models. This more robust analysis confirmed the initial findings (Monash Institute of Health Services Research, 2007). The research report prepared by Roy Morgan and the report covering the re-analysis of data from the Monash Institute of Health Service Research are in Attachment 10.

#### *2.2.1.2 Summary of key findings*

The presence of a nutrition content claim did not significantly increase the probability of an enhanced purchase intention, nutrition attitude, number of health benefits or number of types of beneficiaries. That is, the presence of a nutrition content claim was not associated with a consumer increasing their rating of a products' nutritional value or their intention to purchase the product.

This finding was consistent when the breakfast cereal and sweet biscuit product were analysed individually except for one situation. The presence of a nutrition content claim led to a reduction in respondents' reported purchase intention for the breakfast cereal. Further analysis indicated that for the breakfast cereal the *increased fibre* and *good source of fibre* nutrition content claims both increased probability that a respondent would report a lower purchase intention for the product in comparison to the product without any claim (control).



This may be linked to perceptions of reduced flavour for products with higher levels of fibre (FSANZ 2003b).

When socio-demographic (age, income, gender, education, ethnicity, dependents), cognitive (motivation to process nutritional information, trust in label information) and behavioural factors (diet, main shopper) were included in the modelling the presence of a nutrition content claim remained insignificant in accounting for any increase in perceived nutritional value or purchase intention for the products.

## **2.2.2 Consumer use of nutrition content claims in shopping environments (Colmar Brunton Social Research, 2008).**

The objectives of the study were to:

- investigate the use of nutrition content claims in a real-world shopping environment, and reasons for their use;
- determine the importance/influence of nutrition content claims in purchase decisions; and
- explore differences in purchase behaviour and use of label elements between muesli bars and breakfast cereals.

### *2.2.2.1 Methodology*

This study comprised observations and interviews with 187 shoppers in supermarkets in Sydney, Melbourne and Auckland. This enabled actual behaviour to be observed in relation to food products shopped for, purchased or not purchased and the degree of interaction of the shopper with package labelling. The interviews explored shoppers' perceptions and attitudes towards on pack nutrition content claims. In particular the interview sought in an unprompted manner which label elements were used in making purchase decisions in addition to what other factors influence their purchase decisions. Details of the methodology can be found in the full research report (Colmar Brunton Social Research, 2008) at Attachment 10.

### *2.2.2.2 Summary of key findings*

Overall, 20% of the shoppers interviewed reported having read a nutrition content claim (when present). Sixty-nine percent of these purchased the product and the remaining 31% did not purchase the product. However caution is required in any conclusive statements given the small sample that were found to be using nutrition content claims during shopping. The reasons nominated for use of nutrition content claims included use for a 'quick health check' or to compare more than one product (in conjunction with use of the nutrition information panel and ingredient list).

The nutrition content claim was not the only label element consumers used in making a decision to purchase or not; consumers also indicated they used the brand/product/flavour (58%), the ingredient list (36%) and the nutrition information panel (34%).

Of the consumers who used a nutrition content claim, 75% indicated they used the claim 'a lot' in their purchase decision. This was similar to the level of use of other key information used in decisions such as the nutrition information panel (78%), ingredient list (72%) and brand or product name (76%).

There were no differences in the reported use of nutrition content claims between breakfast cereals and muesli bar products.

## **2.3 Discussion**

FSANZ considers the recently commissioned consumer research supports the approach proposed by FSANZ in the Draft Assessment Report. In summary, results from the in-store study indicated that 20% of the shoppers interviewed reported having read a nutrition content claim (when present). This includes both respondents who ultimately purchased the product and those who did not. The nutrition content claim was not the only label element consumers used in making a decision to purchase or not, as consumers also indicated they used the brand/product/flavour, the ingredient list and the nutrition information panel. Of the consumers who used nutrition content claims, 75% indicated they used the claim 'a lot' in their purchase decision. This is similar to the reported levels of use of other label elements in purchase decisions.

Results from the experimental study indicated that a mocked-up product with a nutrition content claim of lower nutritional quality did not have a greater impact on overall self-reported intention to purchase than a product with no claim at all. In addition, a mocked-up product with a nutrition content claim of lower nutritional quality was not perceived by respondents to be of a higher nutritional value, than a product with no claim at all. In these experiments respondents had access to other on-pack nutrition information, in particular the nutrition information panel. Additional analyses were carried out to see if consumers with lower levels of formal educational attainment, lower levels of personal income, and those from indigenous backgrounds evaluated products with nutrition content claims differently than did consumers with higher levels of formal educational attainment, higher levels of personal income, and those from non-indigenous backgrounds. These analyses showed nutrition content claims on 'less healthy' products did not enhance consumer nutrition evaluations of a product regardless of their education, income or indigenous status, though in some instances consumer evaluations of products, in particular purchase intention, decreased when a nutrition content claim was present.

FSANZ acknowledges these findings may appear counter-intuitive to the assumption that such claims must positively influence purchase behaviour given their widespread use in some food categories by manufacturers. Furthermore the recent research findings also appear to contradict previous FSANZ research on nutrition content claims which indicates a degree of consumer confusion regarding the meaning of some nutrition content claims. These issues have been highlighted by stakeholders in submissions. However there are key differences in the methodology used in the former nutrition content claim research and the recent work commissioned by FSANZ. In particular the former studies used show cards with limited information, these stimuli and associated questioning focused attention to nutrition content claims with a specific aim of gaining responses to the nutrition content claims. The recent studies were designed to replicate a shopping environment as much as possible. Accordingly the stimuli resembled real products and had all normal nutrition and manufacturer information, and the study was designed to remove prompting of any label elements to ensure only the information of relevance to the respondent was used in their evaluations of products.

A number of other studies have found similar findings to the recent FSANZ research, that is limited effects of nutrition content claims on product evaluations and purchase intention, when other nutritional information is available.

Keller et al., (1997) used an experimental design to test the impact of three nutrition content claims. Mock packages of a frozen ready meal were manipulated such that the Nutrition Facts Panel reflected products of poor, medium and good nutritional quality. Claims on products that were of poor nutritional value were inconsistent with regulations but were used to test the impact on perceptions of manufacturer credibility. Keller and colleagues found the claims did not influence consumers' product-related judgments positively when a Nutrition Facts Panel is readily available. Claims that were not consistent with the information within the Nutrition Facts Panel resulted in lower evaluations of manufacturer credibility and did not lead to more favourable nutrition and product evaluations.

Garretson and Burton (2000) examined the effect of different nutrition content claims regarding fat and fibre coupled with manipulated Nutrition Facts Panel information for these nutrients on consumers' product evaluations. They found that the claims had no effect on nutrition or product attitudes, or upon purchase intentions. They also found that inconsistencies between nutrition content claims and the Nutrition Facts Panel can negatively impact trust in label information and manufacturer credibility. However this finding was limited to fat claims, fat being more salient to consumers than fibre.

The findings from the FSANZ experimental study are broadly consistent with the published literature. That is in the presence of nutrition information, such as in the nutrition information panel (or Nutrition Facts Panel in the US) nutrition content claims appear not to enhance product and nutrition attitudes, nor enhance purchase intentions. The FSANZ experimental study indicated higher levels of self-reported use of the nutrition information panel than of nutrition content claims in making product evaluations, a finding consistently reported in other FSANZ surveys of label use in Australia and New Zealand (FSANZ 2003a; 2007). Qualitative research commissioned by FSANZ (2003b) on nutrition content claims notes the majority of consumers made a clear distinction between claim information on the front of a pack and the nutrition information panel on the back/side of a pack, with the former being viewed as advertising and the latter as fact. This is consistent with other studies both in Australia (e.g. Chan et al., 2005) and international studies (e.g. Keller et al., 1997; Szykman et al., 1997; Garretson and Burton, 2000).

In contrast, Roe et al. (1999) using a mall intercept study with 3D mock packages examined 10 claim conditions (a control with no claim, a nutrition content claim only, and 8 health claims) across three product categories (a yoghurt, a breakfast cereal and a frozen ready meal). They found the presence of a nutrition content claim was associated with increased probability of enhanced product evaluations including purchase intention. In implementing the study the participants had access to the Nutrition Facts Panel and the interviewers noted which parts of the package the respondents used in answering the questions. Roe et al. (1999) found that the presence of a nutrition content claim was associated with a greater probability of a search limited to the front panel when answering questions about the product. However, there was no significant association between purchase intention and the presence of a nutrition content claim when search behaviour was truncated to the front panel relative to those who searched both the front panel and the Nutrition Facts Panel<sup>6</sup>.

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<sup>6</sup> Roe et al. (1999) also found positive associations with the presence of health claims and product evaluations including purchase intention.

The two recent studies commissioned by FSANZ did not explore consumers' understanding of nutrition content claims; it focused on measuring the impact of nutrition content claims on consumers' product evaluations and intention to purchase. Anecdotal evidence that consumers' are misled into buying products due to the presence of a nutrition content claim are not supported by the balance of the international literature and the recently commissioned FSANZ research. Previous FSANZ research (section 2.1) indicates consumers have varying capacities to correctly interpret nutrition content claims. In reviewing the literature on consumer use of nutrition labels (broader than content claims) Grunert and Wills (2007) suggest that consumers were able to carry out tasks that required replaying information from the label but had increasing difficulties as task complexity grew. That some consumers are unable to correctly interpret nutrition content claims does not imply they will use incorrect nutritional inferences in making purchase decisions.

It may be that on-pack information is seen as 'advertising' and its value discounted in purchase decisions. Empirical studies with manipulated packages show that inconsistent claims can lead to reductions in manufacturer credibility (Keller et al., 1997; Garretson and Burton, 2000). Finally, while nutrition and health related aspects are a growing motivator in food purchase decisions, taste and cost are often more important to most consumers when making food purchase decisions (e.g. Shepherd and Raats, 2006).

### **3. REFERENCES**

- Chan, C., Patch, C. and Williams, P. (2005) Australian consumers are sceptical about but influenced by claims about fat on food labels. *European Journal of Clinical Nutrition*, **59**:148-151.
- Colmar Brunton Social Research. (2008) *Consumer use of nutrition content claims in shopping environments*. Report prepared for Food Standards Australia New Zealand. Canberra: Colmar Brunton Social Research.
- Cowburn, G. and Stockley, L. (2003) *A systematic review on the research on consumer understanding of nutrition labelling* Brussels, Belgium: European Heart Network.
- Cowburn, G. and Stockley, L. (2005) Consumer understanding and use of nutrition labelling: a systematic review. *Public Health Nutrition*, **8**:21-28.
- FSANZ. (2003a) *Food labelling issues: Quantitative research with consumers*. Evaluation Report Series No. 4. FSANZ, Canberra.
- FSANZ. (2003b) *Food labelling issues: Qualitative study on nutrient content claims*. Evaluation Report Series No. 5. FSANZ, Canberra.
- FSANZ. (2005a) *Food labelling issues: Qualitative research on participants' perceptions and use of nutrition, health and related claims on packaged foods and associated advertising material*. Evaluation Report Series No. 12. FSANZ, Canberra.
- FSANZ. (2005b) *Food labelling issues: Quantitative research on consumers' perceptions and use of nutrition, health and related claims on packaged foods*. Evaluation Report Series No. 13. FSANZ, Canberra.
- FSANZ. (2007) *Consumer Attitudes Survey 2007: a benchmark survey of consumers' attitudes to food issues*. Canberra: FSANZ.

Garretson, J.A. and 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 and Marketing*, **19**(2):213-227.

Grunert, K.G. and Wills, J.M. (2007) A review of European research on consumer response to nutrition information on food labels. *Journal of Public Health*, **15**(5):385-399.

Keller, S.B., Landry, M., Olson, J., Velliquette, A.M., Burton, S., and Andrews, J.C. (1997) The effects of nutrition package claims, nutrition facts panels, and motivation to process nutrition information on consumer product evaluations. *Journal of Public Policy and Marketing*, **16**(2):256-269.

Monash Institute of Health Services Research. (2007) *Re-analysis of quantitative data on consumer responses to nutrition content claims*. Report prepared for Food Standards Australia New Zealand. Clayton: Monash Institute of Health Services Research.

Ni Mhurchu, C. and Gorton, D. (2007) Nutrition labels and claims in New Zealand and Australia: a review of use and understanding. *Australian and New Zealand Journal of Public Health*, **31**:105-12.

Paterson, D., Zappelli, R. and Chalmers, A. (2001) *Food Labelling Issues – consumer qualitative research*. Donovan Research, ed. Canberra: Australia and New Zealand Food Authority.

Roy Morgan Research. (2008) *An investigation into the impact of nutrition content claims on packaging in relation to consumer purchase intention, nutrition attitude and health benefit*. Report prepared for Food Standards Australia New Zealand. Brisbane: Roy Morgan Research.

Roe, B., Levy, A.S., and 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 and Marketing*, **18**(1):89-105.

Shepherd, R. and Raats, M. eds. (2006) *The psychology of food choice*. *Frontiers in Nutritional Sciences No 3*. Wallingford: CABI.

Szykman, L.R., Bloom, P.N., and Levy, A.S. (1997) A proposed model of the use of package claims and nutrition labels. *Journal of Public Policy and Marketing*, **16**(2):228-241.

TNS Social Research. (2006) *Consumer research on 'no added sugar' claims. The effect of a disclaimer on consumer interpretation of the 'no added sugar' claim*. Report prepared for Food Standards Australia New Zealand. Manuka: TNS Social Research.

TNS Social Research. (2007) *Qualitative research into the interpretation of %DI and %RDI labelling*. Report prepared for Food Standards Australia New Zealand. Manuka: TNS Social Research.