

University of Wollongong

## Research Online

---

Faculty of Health and Behavioural Sciences -  
Papers (Archive)

Faculty of Science, Medicine and Health

---

20-10-2006

### Can Health Claims for Foods Help Consumers Choose Better Diets?

P. G. Williams

*University of Wollongong*, [peterw@uow.edu.au](mailto:peterw@uow.edu.au)

Follow this and additional works at: <https://ro.uow.edu.au/hbspapers>



Part of the [Arts and Humanities Commons](#), [Life Sciences Commons](#), [Medicine and Health Sciences Commons](#), and the [Social and Behavioral Sciences Commons](#)

---

#### Recommended Citation

Williams, P. G.: Can Health Claims for Foods Help Consumers Choose Better Diets? 2006.  
<https://ro.uow.edu.au/hbspapers/32>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

---

## Can Health Claims for Foods Help Consumers Choose Better Diets?

### Abstract

Consumers are becoming health-conscious and most agree that eating healthily is a better way to manage illness than using medication. This has led to the increased acceptance and consumption of functional foods with health-promoting capabilities, demonstrated by impressive growth in sales world wide. Functional foods certainly have the potential to assist in disease management or reduction of risk and their use is being increasingly recommended in both medical and dietetic practice. There is an observed 'push' from food companies seeking out new markets and profit opportunities, with a concurrent market 'pull' from an educated, health-conscious consumer with a higher disposable income. However consumer attitudes to health claims for foods need to be understood if the promise of functional food to improve health is to be realised. On their own, health claims on foods are unlikely to have any significant impact on eating behaviour. The potential barriers are many, including lack of awareness or notice of the claims, misunderstanding of their meaning, and lack of interest or trust in the claims. Long term behaviour change can only be achieved through a comprehensive education and marketing effort. It has been suggested that examination of successful campaigns can provide some generalisations about how to ensure that claims are effective:

- Claims target a specific population segment
- Claims receive significant media attention
- Claims are introduced with an aggressive marketing campaign
- Claims highlight quantitative health benefits
- Claims relate to personally relevant health problems.

### Keywords

health claims, functional foods, consumers, food labels

### Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

### Publication Details

This article was originally published as: Williams, PG, Can Health Claims for Foods Help Consumers Choose Better Diets?, *Current Medical Literature: Clinical Nutrition*, 2006, 15(2), 25-30. The original journal can be found [here](#) at the Current Medical Literature website.

**Title:           How to Help Consumers Use Health Claims for Foods**

**Author:           Peter Williams**  
**BSc(Hons) DipNutrDiet MHP PhD FDAA**

**Current**  
**Position:        Associate Professor, Nutrition and Dietetics**  
**Address:         Smart Foods Centre**  
**Department of Biomedical Science**  
**University of Wollongong**  
**NSW Australia 2522**

**Tel:             61 2 4221 4085**  
**FAX:            61 2 4221 4844**  
**e-mail          peter\_williams@uow.edu.au**

**Key words:     health claims; consumer; food labels**

**Word Count: 2650**

**Version:        V3**

Consumers are becoming health-conscious and most agree that eating healthily is a better way to manage illness than using medication [1]. This has led to the increased acceptance and consumption of functional foods with health-promoting capabilities, demonstrated by impressive growth in sales world wide [2]. Functional foods (those marketed with scientifically substantiated claims to improve health and wellbeing) certainly have the potential to assist in disease management or reduction of risk [3] and their use is being increasingly recommended in both medical and dietetic practice [4, 5]. There is an observed ‘push’ from food companies seeking out new markets and profit opportunities, with a concurrent market ‘pull’ from an educated, health-conscious consumer with a higher disposable income. However consumer attitudes to health claims for foods need to be understood if the promise of functional food to improve health is to be realised [6].

Health claims – that is, claims that a food can provide a particular health or performance benefit above the effects of normal nutrition - are seen by many companies as essential tools for the successful marketing of new foods with innovative bioactive ingredients, but they can also be used to promote increased consumption of traditional unprocessed foods with demonstrated health benefits, such as oats, nuts and soybeans. The American Dietetic Association supports the use of health claims that have been pre-approved by the US Food and Drug Administration (FDA), but also stresses the importance of health claims on foods being supported by an adequately funded public program of nutrition education and health promotion [7]. Without this, it is claimed, there is the possibility that consumers will receive unbalanced messages, with greater advertising of value-added highly processed products rather than basic foods such as vegetables and fruit, or that health claims could have negative effects such as preoccupation with specific diseases, distortion of dietary habits, oversimplification of dietary guidance and erosion of confidence in information on the food label.

Nutrient content and function claims are commonly found on food products throughout the world, however the regulation of health claims varies widely. In many countries such claims are forbidden, or permitted only after approval by a national regulatory body. [8].

Prohibiting health claims has not prevented the proliferation of a wide number of potentially confusing or misleading claims on food products that may be interpreted by consumers as implied health claims. According to one commentator, manufacturers have “made the formulation of soft claims into a fine art, creating claims that imply health effects without actually naming a disease” [3].

There are a number of studies that have indicated that nutrition claims (such as “fat free”) are appealing to consumer and influence purchase [9]. Such claims may, however, not necessarily lead to better diet choices overall. The goal of reducing dietary fat appears to have supplanted the larger goal of balanced healthy eating, and it is notable that in the USA, although fat intake has declined as a percentage of energy over the past 25 years, the prevalence of obesity has dramatically increased [10].

It is less clear what the influence of health claims is on consumers. A recent review of the use and understanding of health claims found very few studies that had examined the impact of health claims on actual purchase behaviour or health outcomes, although the results from all the studies that have examined consumer reactions to particular claims are consistent with the proposition that health claims can support improved nutrition awareness and better food choices [11]. Some common findings from the studies were:

- Health claims on foods are seen by consumers as useful and when a product features a health claim they view it as healthier and state they are more likely to purchase it
- Consumers are sceptical of health claims from food companies and strongly agree with the idea that health claims should be approved by government
- Consumers do not make clear distinctions between nutrition content claims, structure-function claims and health claims

Using the Theory of Planned Behavior, one recent study concluded that belief in the effectiveness of the functional ingredient (ie belief in the health claim) was the most important factor determining consumer intention to use a functional food [12]. Another theoretical model that has been applied to the study of the impact of health claims is the

Attitude-Social influence-Self-efficacy(ASE) model [13]. It notes several key steps that are needed for a health claim to influence consumer food behaviour: 1) exposure and attention to the claim; 2) understanding of the claim; 3) changes in attitudes and belief (related to personal relevance and trust in the claim); and 4) maintenance of behaviour change.

### **Exposure and attention to claims**

In order for health claims to have an impact on purchasing behaviour, consumers have to be exposed to them. In the US, where health claims have been permitted now for over 10 years, it is noticeable that the proportion of packaged foods carrying claims is still relatively low. Several surveys of supermarket products and print advertisements for food have found only 2-4% of products with health claims, a level largely unchanged from 1997 to 2001 [14-16]. Similar levels have been found in a recent survey in Australia, where most health claims are still illegal, demonstrating that monitoring of compliance with regulations is not always rigorous [17]. Generally claims are more common in particular food segments such as breakfast cereals, fat spreads, and dairy products.

A variety of surveys have indicated that health claims are seen by consumers as useful and desirable. In Canada a telephone survey about products with functional benefits reported that more respondents believed that packaging should promote the health benefit it provides, rather than only the presence of the component itself [18]. In other words, they preferred health claims to content claims and 47% rated them as very useful compared to less than 10% who saw little or no value for them. Similar supportive views have been found amongst consumers in Scandinavia [19], the UK [20] and the US [21]. The reasons for liking health claims seem to be related to general difficulties in interpreting existing nutrition information on labels.

While consumers may say that health claims are useful, the extent to which they use them is less clear. It has been suggested that the impact of claims is greatest on those who already tend to buy a particular type of product; people are unlikely to buy a new type of

product just because of a health claim [22]. It is clear that usage is generally higher in those who are better educated, older, female and with an interest in nutrition [21, 23].

Most studies in the UK, Scandinavia, the Netherlands and the US report that claims about prevention of chronic diseases or health enhancement are of more interest to consumers than claims about normal physiological function or health maintenance [19, 24, 25]. It is also a common finding that consumers do not make clear distinctions between nutrition claims and health claims [26-28]. Once consumers are familiar with a nutrient-disease relationship (eg calcium and bone health) a mere nutrient content claim may be interpreted as a health claim.

Several experimental studies have also found a preference for shorter or split claims (with a short claim on the front and more detailed information elsewhere on the pack). The presence of short health claim on the front label generates more thoughts and creates a more believable and positive image in the consumers' mind than does a longer health claim [29]. In fact consumers who were given longer claims were no more likely to believe in the claimed health benefit than those who saw no front label information.

### **Understanding of claims**

A lack of nutrition knowledge can limit consumers' abilities to understand or evaluate a health claim [30] and this lack of understanding can diminish the credibility of claims. Consumers generally don't like complex, scientifically-worded claims on foods. In some studies consumers seem particularly sceptical of claims with qualifying words such as "may" or "could" [26, 30]. However, in one US study consumers were wary about claims that were too broad or absolute to be credible and preferred "may reduce" or "helps reduce" claims [31]. Australian research suggests mixed reactions to claims qualified with words such as "may", with some consumers reporting reduced confidence with such wording due to the implied uncertainty, while others feel enhanced confidence because it is more realistic [28].

The accuracy of consumers' interpretation of health claims has been examined in only a few studies. When primary shoppers were shown various labels for canned soup, a claim of "healthier" resulted in a slightly more favourable and misleading evaluation of the sodium content of the product, but the claim had no significant effect on belief that consumption would reduce disease risk [32]. One Australian study found that even though products with claims were regarded as healthier, 82% consumers disagreed that eating them meant it was less important for them to watch what else they ate; in other words the concept of the need for an appropriately balanced diet is not lost in the presence of health claims [33].

### **Changes in attitudes and belief**

There is a high level of consumer scepticism about all aspects of information on food labels, including health claims, and concern is often expressed over manufacturers using claims just as a sales tool [30]. Trust in health claims is not necessarily related to the strength of promise made in the claims [27] and messages are more likely to be believed when they repeated frequently by different and trusted sources [26]. Most studies show strong agreement from consumers with the idea that health claims should be approved [21, 22, 31]. Endorsement by authoritative independent organisations increases trust in health claims made on food labels [23, 28].

A number of studies have been conducted with consumers, showing them mock food packs with variations in labelling format, to evaluate the impact of health claims on beliefs and attitudes about the product. The largest study of this kind was one conducted for the FDA, using interviews with 1403 primary food shoppers in eight cities across the US. The study used three products and ten label formats, testing the effect of different lengths of claims, their position on the label and types of endorsement on consumers' evaluation of product healthiness and purchase intent [34]. Some of the main findings were that:

- when a product features a health claim, respondents view the product as healthier and state they are more likely to purchase it

- brief health claims were more effective than long ones and there was no indication that short health claims encouraged inappropriate or exaggerated beliefs about products health benefits compared to long claims
- claims that provided new information had a positive effect on attitude to the product; claims that provided no new information had no effect
- health claims seemed to have limited ability to communicate educational information; more than 20% respondents did not acknowledge that a product had any health benefits even when carrying an explicit claim
- perception of health benefits seemed largely based on prior beliefs about the product rather than specific information provided by the claims.

Some of these findings have been replicated in other studies, but not all. The most consistent finding is that health claims do increase consumers' expectations about the healthiness of a product and produce more positive attitudes toward its nutritional value [11]. This influence can result in a general "halo" effect, affecting belief about nutritional attributes unrelated to the health claim [35].

Some studies have supported the FDA finding that the presence of a health claim is associated with a greater probability that a search for information is more limited, ignoring the nutrition information panel, especially for those consumers with lower education [36]. However this is not a consistent finding. One survey of US shoppers found they relied on the nutrition facts panel to a greater extent than they do on claims on the front of pack [37]. Another reported that when claims about heart health and four different versions of a nutrition facts panel were presented together, the health claim had no significant effect on product evaluation; consumers could correctly interpret the nutrition information panel even in the presence of contradictory health claims [38]. Similarly, a study of the influence of claims and nutrient information for restaurant menu items found that participants were not easily misled by claims that were not consistent with nutrient levels in the products [39].

Several studies support the FDA finding that health claim information that is new or unfamiliar has greater impact. Other factors that have been reported to influence consumer acceptance of a health claim are medical community support for the claim and whether consumers have an interest in nutrition information generally.

### **Effects on behaviour**

Although surveys of consumer opinions and experimental studies are useful, on their own they are not sufficient to evaluate the ultimate impact of health claims on consumer behaviour and health outcomes. In reality, it is known that what consumers say in surveys and focus groups often does not translate into behaviour in the supermarket.

A few studies attempting to measure the effect of claims on purchase behaviour have relied on examining sales data and correlating this with presence or absence of health claims. It has been claimed by some food companies that health claims can grab the attention of consumers and increase the consumption of healthful products. There have been positive increases in sales of oats, high-fibre and folate-enriched breakfast cereals, and cooking oils after claims or media coverage about the health benefits of these products [40].

There is one study that has attempted to relate use of health claims with diet quality [41]. It compared the Healthy Eating Index (HEI) score – a measure of total diet quality – of individuals before and after using different food label elements. The results show that label use generally has a positive effect on improving diet quality and that improvement is highest when consumers use health claim information on the label - greater than the effect of use of ingredient lists, nutrient content claims, serving size or the nutrition panel.

However there are many areas that require further investigation. We know little about how health claims on products affect consumer behaviour compared to claims made in advertising or on the internet, and there are no studies that have looked at the reactions of children or adolescents versus adults.

## **Conclusions**

On their own, health claims on foods are unlikely to have any significant impact on eating behaviour. The potential barriers are many, including lack of awareness or notice of the claims, misunderstanding of their meaning, and lack of interest or trust in the claims. Long term behaviour change can only be achieved through a comprehensive education and marketing effort. It has been suggested that examination of successful campaigns can provide some generalisations about how to ensure that claims are effective [42]:

- Claims target a specific population segment
- Claims receive significant media attention
- Claims are introduced with an aggressive marketing campaign
- Claims highlight quantitative health benefits
- Claims relate to personally relevant health problems.

For health professionals working to improve the food choices of individuals these suggestions for food companies provide some guide about how to help consumers use health claims effectively. Countries that permit health claims have established rigorous processes to evaluate the scientific evidence substantiating approved health claims [43]. Patients with particular diet needs should be encouraged to look for claims relevant to them and reassured to trust their accuracy. Health practitioners need to be able to translate the benefits of claims into quantifiable potential benefits for individuals and include information on functional food options in dietary advice strategies. At a broader level they should work with food companies to leverage their marketing capacity to ensure accurate diet and nutrition messages are communicated to the public whenever functional foods are promoted with health claims.

## References

1. Hasler C. Functional foods: benefits, concerns and challenges - a position paper from the American Council on Science and Health. *J Nutr.* 2002;132:3772-3781.
2. Menad K. Market and marketing of functional food in Europe. *Journal of Food Engineering.* 2003;56:181-188.
3. Katan M. Health claims for functional foods: regulations vary between countries and often permit vague claims. *BMJ.* 2004;328:180-181.
4. Jones P. Clinical nutrition: 7. Functional foods - more than just nutrition. *Can Med Assoc J.* 2002;166:1555-1563.
5. Patch C, Tapsell L, and Williams P. Dietetics and functional foods. *Nutr Diet.* 2004;61:22-29.
6. Frewer L, Scholderer J, and Lambert N. Consumer acceptance of functional foods: issues for the future. *Br Food J.* 2003;105:714-731.
7. American Dietetic Association. Position of the American Dietetic Association: Functional foods. *J Am Diet Assoc.* 2004;104:814-826.
8. Hawkes C. *Nutrition labels and health claims: the global regulatory environment.* Geneva: WHO, 2004.
9. Chan C, Patch C, and Williams P. Australian consumers are sceptical about but influenced by claims about fat on food labels. *Eur J Clin Nutr.* 2005;59:148-151.
10. Allred J. Too much of a good thing? *J Am Diet Assoc.* 1995;95:417-418.
11. Williams P. Consumer understanding and use of health claims for foods. *Nutr Rev.* 2005;63:256-264.
12. Patch C, Tapsell L, and Williams P. Attitudes and intentions towards purchasing novel foods enriched with omega-3 fatty acids. *J Nutr Educ Behav.* 2005;37:235-241.
13. Van Assema P, Glanz K, Brug J, and Kok G. Effects of health claims on eating habits of the Dutch population. *Eur J Public Health.* 1996;6:281-287.

14. Caswell J, Ning Y, Liu F, and Mojduzka E. The impact of new labelling regulations on the use of voluntary nutrient-content and health claims by food manufacturers. *J Pub Pol Marketing*. 2003;22:147-158.
15. LeGault L, Brandt M, McCabe N, Adler C, Brown A, and Brecher S. 2000-2001 Food label and package survey: an update on prevalence of nutrition labeling and claims on processed, packaged foods. *J Am Diet Assoc*. 2004;104:952-958.
16. Parker B. Food for health: the use of nutrient content, health and structure/function claims in food advertisements. *J Advert*. 2003;32:47-55.
17. Williams P, Ridges L, Yeatman H, Houston A, Rafferty J, Roesler A, Sobierajski M, and Spratt B. Nutrition function, health and related claims on packaged Australian food products - prevalence and compliance with regulations. *Asia Pacific J Clin Nutr*. 2006;15:10-20.
18. National Institute of Nutrition. *Consumer awareness of and attitudes toward functional foods*. Ottawa: National Institute of Nutrition, 2000.
19. Bech-Larsen T and Grunert K. The perceived healthfulness of functional foods. A conjoint study of Danish, Finnish and American consumers' perceptions of functional foods. *Appetite*. 2003;40:9-14.
20. Food Standards Agency. *Consumer attitudes to food standards Wave 4*. London: Food Standards Agency; 2004.
21. Fullmer S, Geigher C, and Parent C. Consumers' knowledge, understanding and attitudes toward health claims on food labels. *J Am Diet Assoc*. 1991;91:166-171.
22. National Institute of Nutrition. *Health Claims in Canada - Taking the Consumer Pulse*. Ottawa: National Institute of Nutrition, 1999.
23. Bhaskaran S and Hardley F. Buyer beliefs, attitudes and behaviour: foods with therapeutic claims. *J Consum Marketing*. 2002;19:591-606.
24. Food Standards Agency. *Health claims on food packaging. Consumer-related qualitative research*. London: Food Standards Agency; 2002.

25. van Kleef E, van Trijp H, and Luning P. Functional foods: health claims-food product compatibility and the impact of health claim framing on consumer evaluation. *Appetite*. 2005;44:299-308.
26. National Consumer Council. *Messages on Food. Consumers' use and understanding of health claims on food packs (PD 09/D1/97)*. Available at [http://www.ncc.org.uk/pubs/pdf/messages\\_on\\_food.pdf](http://www.ncc.org.uk/pubs/pdf/messages_on_food.pdf). London; 1997.
27. Urala N, Arvola A, and Lahteenmaki L. Strength of health-related claims and their perceived advantage. *Int J Food Sci Tech*. 2003;38:815-826.
28. TNS Research. *Food labelling issues: Qualitative research on participants' perceptions and use of nutrition, health and related claims on packaged foods and associated education material*. Available at: [http://www.foodstandards.gov.au/\\_srcfiles/FTDS%20FINAL%20report.pdf](http://www.foodstandards.gov.au/_srcfiles/FTDS%20FINAL%20report.pdf). Canberra: Food Standards Australia New Zealand, 2005a.
29. Wansink B, Sonka S, and Hasler C. Front-label health claims: when less is more. *Food Policy*. 2004;29:659-667.
30. Health Canada. *Health claims focus testing*. Ottawa: A report prepared by Goldfarb Consultants for Nutrition Evaluation Division, Food Directorate, Health Canada; 2000.
31. Bruhn C, Bruhn J, Cotter A, Garrett C, Klenk M, Powell C, Stanford G, Steinbring Y, and West E. Consumer attitudes toward use of probiotic cultures. *J Food Sci*. 2002;67:1969-1972.
32. Andrews J, Burton S, and Netemeyer R. Are some comparative nutrition claims misleading? The role of nutrition knowledge, ad claim type and disclosure conditions. *J Advert*. 2000;29:29-452.
33. TNS Research. *Food labelling issues: Quantitative research on consumers' perceptions and use of nutrition, health and related claims on packaged foods and associate advertising material. Evaluation report series No. 13*. Available at: [http://www.foodstandards.gov.au/\\_srcfiles/QUANT\\_Health%20Claims%20Resea](http://www.foodstandards.gov.au/_srcfiles/QUANT_Health%20Claims%20Resea)

- [rch\\_FINAL%20Report.pdf](#). Canberra: Food Standards Australia New Zealand, 2005b.
34. Roe B, Levy A, and Derby B. The impact of health claims on consumer search and product evaluation outcomes: results from FDA experimental data. *J Pub Pol Marketing*. 1999;18:89-105.
  35. Ford G, Hastak M, Mitra A, and Ringold D. Can consumers interpret nutrition information in the presence of a health claim? A laboratory investigation. *J Pub Pol Marketing*. 1996;15:16-27.
  36. McCullum C and Achterberg C. Food shopping and label use behavior among high school-aged adolescents. *Adoles*. 1997;32:181-197.
  37. Keller S, Landry M, Olson J, Velliquette A, Burton S, and Andrews J. The effects of nutrition package claims, nutrition facts panels, and motivation to process nutrition information on consumer product evaluations. *J Pub Pol Marketing*. 1997;16:256-269.
  38. Mitra A, Hastak M, Ford G, and Ringold D. Can the educationally disadvantaged interpret the FDA-mandated nutrition facts panel in the presence of an implied health claim? *J Pub Pol Marketing*. 1999;18:106-117.
  39. Burton S and Creyer E. What consumers don't know can hurt them: consumer evaluations and disease risk perceptions of restaurant menu items. *J Consum Aff*. 2004;38:121-145.
  40. Marquart L, Weimer K, and Jacob B. Solid science and effective marketing of health claims. *Nutr Today*. 2001;36:107-111.
  41. Kim S-Y, Nayga R, and Capps O. Food label use, self-selectivity, and diet quality. *J Consum Aff*. 2001;35:346-363.
  42. Wansink B and Cheney M. Leveraging FDA health claims. *J Consum Aff*. 2005;39:386-398.

43. Richardson D. The scientific substantiation of health claims with particular reference to the grading of evidence and consumer understanding. *Food Sci Technol Bull.* 2005;2:39-48.