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Survey of health claims for Australian foods made on Internet sites

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Survey of health claims for Australian foods made on Internet sites

Abstract

Aim: Australia and New Zealand are currently preparing a new food standard code, which will allow the use of health claims on food products and in associated advertising. The aim of this study was to obtain preliminary information about the current use of health claims on the Internet and the level of compliance of these claims with existing regulations. Methods: From August to October 2005 a survey was conducted of 1068 websites associated with the top 20 food processing companies in Australia, and an additional 683 websites for food products found to carry health claims in previous studies of product labels and magazine advertisements. The results were compared with those from a 2003 survey of health claims on the labels of 7850 products. Results: The survey found that 14.5% of food product websites carried a health claim, and 40.7% and 37.0% of products previously identified as carrying claims on product labels or in magazines respectively, had Internet claims. 21.4% of claims were located directly on the food product web page, but the majority (78.6%) were on associated links within the manufacturer's website. Many of the claims (19.7%) were high level or therapeutic claims not permitted by current food standards. Conclusions: Health claims are not being made more frequently on websites compared to product labels, but there is a greater prevalence of high level and therapeutic claims made on the Internet. In future food standards enforcement will need to give greater priority to monitoring the use of health claims on the Internet.

Keywords

Internet, health claims, food standards, advertising

Disciplines

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

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Title:Survey of health claims for Australian foods made onInternet sites

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H Dragicevich is an MSc(Nutr&Diet) candidate who undertook the main data collection and analysis and drafted the manuscript. P Williams initiated the study, supervised the project and assisted with interpretation and writing the manuscript. L Ridges is a PhD candidate who assisted with project supervision, data analysis, interpretation and manuscript preparation.

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1 Abstract

Aim: Australia and New Zealand are currently preparing a new food standard code, which will allow the use of health claims on food products and in associated advertising. The aim of this study was to obtain preliminary information about the current use of health claims on the Internet and the level of compliance of these claims with existing regulations.

6 **Methods:** From August to October 2005 a survey was conducted of 1068 websites associated 7 with the top 20 food processing companies in Australia, and an additional 683 websites for 8 food products found to carry health claims in previous studies of product labels and magazine 9 advertisements. The results were compared with those from a 2003 survey of health claims on 10 the labels of 7850 products.

Results: The survey found that 14.5% of food product websites carried a health claim, and 40.7% and 37.0% of products previously identified as carrying claims on product labels or in magazines respectively, had Internet claims. 21.4% of claims were located directly on the food product web page, but the majority (78.6%) were on associated links within the manufacturer's website. Many of the claims (19.7%) were high level or therapeutic claims not permitted by current food standards.

17 **Conclusions:** Health claims are not being made more frequently on websites compared to 18 product labels, but there is a greater prevalence of high level and therapeutic claims made on 19 the Internet. In future food standards enforcement will need to give greater priority to 20 monitoring the use of health claims on the Internet.

1 Introduction

2

The use of health claims for foods has been a contentious issue $^{1-3}$. Although nutrient content 3 4 and function claims are commonly found on food products throughout the world, the regulation of such claims varies widely⁴. Currently in Australia and New Zealand nutrient 5 6 content claims and some health maintenance claims are allowed, but other types of health 7 claims, with the exception of those concerning the benefit of maternal consumption of folate in regard to preventing neural tube defects, are prohibited ⁵. However, Food Standards 8 9 Australia New Zealand (FSANZ) is now developing a new food standard which will allow the regulated use of health claims 6 . 10

11

When introduced, the new standard will apply to product labels and all areas of associated advertising, one of which is the Internet. Small amounts of research have been conducted into the use of health claims in magazines ^{7, 8} and on product labels ⁹⁻¹², but to date no research has been done into the use of claims on the Internet in Australia. Despite this lack of research, it has been the experience in countries other than Australia that a large number of dubious and unfounded health claims are being made on the Internet ¹³⁻¹⁶, and concern regarding the need for tighter regulation has been expressed ¹³.

19

This study aimed to obtain preliminary data about the presence of health claims on the internet sites of the top 20 food processing companies in Australia advertising food products. Additionally, the study examined the presence of health claims on internet sites advertising foods shown to carry health claims either on their labels, or in magazine advertisements as determined by previous surveys. It also investigated the location of claims within the websites.

1 Methods

2	
3	To determine the level and type of health claims made on the Internet, the search engine
4	Google was used to conduct a targeted search for food products which were either:
5	a) Advertised on the websites of the top 20 food processing companies in Australia, as
6	identified in the US Foreign Agricultural Service Report – 'Australia Food Processing
7	Ingredients Sector, Food Processing Sector, 2000' ¹⁷ .
8	b) Identified as carrying high, general or therapeutic claims in a survey undertaken in
9	2003 which surveyed 7,850 food products for sale in supermarkets and a sample of
10	health food and Asian food stores in New South Wales ¹¹ , or
11	c) Promoted in print media advertisements for food containing a health or therapeutic
12	claim, found in a survey of Australia's top-selling 30 magazines conducted in the first
13	six months of 2005 (unpublished data).
14	
15	For the purpose of data collection, all claims made on the food product web page were
16	recorded. Also recorded was any information from the same website located on a different
17	web page, and any information found on separate websites provided as links on the original
18	food product web page.
19	
20	Where information regarding the food product was located on the manufacturer's website, but
21	on web pages separate to that of the food product, only information located within a
22	maximum of two mouse clicks (ie, two links away from the original web page) was recorded.
23	Where information was located on a link separate to the manufacturer's website, only
24	information located within one click was recorded.

The following information from each food product and food manufacturer's website visited
 was recorded in a Microsoft Excel spreadsheet:

- Food product category, using the same 47 food categories used in the 2003 Australian
 food product survey ¹¹, with the addition of a miscellaneous category (including nuts
 and confectionery)
- 6 Product and brand name
- 7 Manufacturer name
- 8 Internet address and date accessed
- 9 Website location of claim
- Links to other websites (eg. a disease-related organisation website)
- Exact wording of health claim/s and any implied claims (eg. symbols)
- 12

Where health or therapeutic claims were found, each claim was organised into one of the 16
claim categories as defined in the FSANZ Initial Assessment Report to Proposal P293 ⁶.
Definitions and examples of each claim category have been given elsewhere ¹¹. The claims
were analysed for the following:

- Percentage of products with health claims in each food category
- Number and type of claim/s made
- Compliance with current food regulations (determined by assessment with current regulations as outlined by Food Standards Australia New Zealand in Proposal 293 ⁶
 and Standard 1.1A.2 (Transitional Standard Health Claims) of the Food Standards Code ⁵.

- 1 For the purpose of this survey, only general, high and therapeutic health claims were reported.
- 2 Nutrient content or general descriptions (eg, 'healthy' or 'nutritious') made in association
- 3 with food products were not included in the data collection.

- 1 **Results**
- 2

3 Frequency of claims

The search of the websites associated with the top 20 food processing companies in Australia located a total of 1,068 food products. A website health or therapeutic claim was identified in association with 155 (14.5%) of these products (Table 1). The average number of Internet claims per product was 0.3, with spreads having the highest average number of claims per product (3.2). Energy drinks was the sole food category in which an Internet claim was associated with 100% of its products.

10

Table 2 highlights the types of health claims found according to the P293 claim classification framework ⁶. The majority of claims found were general level claims (77.2%), followed by high level claims (19.4%), endorsement claims (3.1%) then therapeutic claims (0.3%). The largest portion of general level claims were nutrient function (57.8% of all claims), and of the high level claims, risk reduction claims in relation to a serious disease or condition were the most frequent (10.4%).

17

Of the endorsement claims found, the NSW School Canteen Project endorsed six of the nine products and the remaining three products were endorsed by sporting personalities: one iron man, one iron woman and one footballer. Two implied claims were recorded: one product was stamped with the 'Happy Tooth Logo' the logo of Tooth Friendly International and the other carried the Osteoarthritis Australia (O.A.) Bone stamp of approval.

23

24 Internet vs. food labels and magazine advertisements – number of claims

25 The 2003 Australian food label survey identified 1,099 products as carrying health claims ¹¹.

26 518 of those 1099 products were additional products to those found in the search of the top 20

food processing companies in Australia. Of these 518 products, 372 had accessible websites.
 Health or therapeutic claims were found in association with 211 (56.7%) of the 372 products
 (Table 3).

4

5 Of products with a website, the average number of claims per product was 3.5. At least one 6 website health or therapeutic claim was found for all products in the juice (cold), rice, soups 7 and sports drinks categories, and juice (cold) was the food category identified as having the 8 highest average number of claims per product (9.7).

9

The 2005 magazine survey identified 396 food product advertisements as carrying health claims. 165 of the 396 products were additional products to those found in the search of the top 20 food processing companies in Australia. Of these 165 products, 72 had accessible websites. Health or therapeutic claims were found in association with 61 (84.7%) of the 72 products (Table 4).

15

The average number of claims per product with a website was 12.2 with teas having the highest average number of website claims per product (21.0). A health or therapeutic claim was found in association with all of the products in the breakfast cereals, cake mixes, canned seafood, drink bases, milk and teas categories.

20

21 Internet vs. food labels and magazine advertisements – type of claims

Of the website claims associated with foods found to carry claims on labels in the 2003 food product survey, 74.9% were general level, 23.0% were high level, 1.8% were therapeutic and 0.2% were endorsement. The general level claim type most commonly found was nutrient 1 function (60.5%) and the high level claim type most commonly found was risk reduction
2 claims in relation to a serious disease or condition (20.6%).

3

Similarly, the website claims associated with the products identified in the 2005 magazine survey also revealed general level claims to be the most common claim type, comprising 39.9% of the total claims, followed by therapeutic (30.5%), and high level claims (29.7%). Nutrient function claims (15.5%) were the most common general level claims and risk reduction claims in relation to a serious disease or condition were the most common high level claims (15.2%).

10

11

12 High level and therapeutic claims

13 Combining the results from the three search strategies, the high level and therapeutic claims 14 referred to 22 different nutrients or biomarkers. The food component that appeared in the highest number of high level and therapeutic claims combined was the whole food rather than 15 16 specific nutrients or components (33.8%) and the health benefits most commonly appearing 17 were in relation to cardiovascular disease (31.0%) and cancer (22.1%). Only three high level 18 claims related to the permitted claim for folate and neural tube defects and one of these did 19 not comply with regulation. Table 5 summarises the proportion of claims found with the three 20 search strategies referencing the various health benefits and nutrient or properties claimed.

21

Teas were the food category where the greatest number 228 (37.0%) of high level health claims were found. It was also the food category where the highest number 268 (91.5%) of therapeutic claims were found followed by the yoghurt category (6.5%). After teas, the highest number of website high level health claims was found in the juice (20.6%), juice
 (cold) (13.1%), milk (5%), canned seafood (4.7%) and yoghurt (3.4%) categories.

3

4 Location of claims

5 The total number of claims found via the three search strategies was 2,484. Of these claims 6 21.2% (527) were found on the web page the food product was advertised on and 78.6% 7 (1,953) of claims were found on a separate page to the webpage advertising the product, 8 within the manufacturer's website. For example, the menu at the side of the web page would 9 offer links such as: 'Nutrition and bone facts' or 'facts about peanuts'.

1 Discussion

2

This study focused on the prevalence of claims found on the top 20 Australian food 3 4 manufacturers' websites and the type and frequency of website claims associated with 5 products found previously to carry claims on the label or in magazine advertisements. 6 Consequently, the search strategy utilised was not a comprehensive Internet search of all food 7 products, types or categories. In particular, no products were found from the frozen dessert, 8 frozen vegetables and olives categories. Furthermore, unpackaged foods such as fresh fruits 9 and vegetables were not included in this Internet survey. Thus the data collected in this study 10 cannot provide a comprehensive estimate of the prevalence of health claims for foods on the 11 Internet, and should therefore be considered as preliminary data which offers a reference point 12 for further investigation and some insight into strategies regulatory enforcement agencies 13 could use as a means of monitoring the use of false or misleading internet health claims.

14

15 Frequency of claims

16 The survey of websites associated with the top 20 food processing companies in Australia 17 found that 14.5% of a total of 1068 products carried a website health claim. This result is 18 comparable to the findings of previous research regarding claims on product labels. In 2000-19 2001 a survey of 1,281 food products, performed by the US Food and Drug Administration (FDA), found that 10.6% had health or nutrient structure/function claims⁴. In the 2003 20 21 Australian food product survey 14% of products carried a nutrient function, health or related claim ¹¹. This suggests that the proportion of products with website health claims, as 22 23 determined by this search method, is similar to the proportion of products carrying health 24 claims on food packages.

1 The survey of websites associated with the top 20 food processing companies in Australia also provided an insight into the food categories that commonly carry Internet health claims. 2 3 The ten food categories with the highest percentage of website claims were: energy drinks, fat 4 spreads, edible oils, pasta, voghurt, cheese, teas, breakfast cereals, muesli bars and canned 5 vegetables. In the 2001 Australian food survey of nutrient content and nutrition claims on labels ¹² five of the top ten food categories were the same as those identified in this study. In 6 the 2003 survey of health claims on food product labels ¹¹, four of the top ten categories were 7 8 the same. The five food categories common to the top ten in all three studies were: energy 9 drinks, sports drinks, yoghurt, breakfast cereals and muesli bars.

10

11 Internet vs. food labels and magazines

Due to the concern that has previously been expressed in the US and Britain after the discovery of growing numbers of dubious health claims on the Internet ¹⁴ it was expected that the current survey might find a larger number of health claims on websites in comparison to product labels and magazines. Contradicting this assumption, however, were the findings that only 40.7% and 37.0% of websites related to food products previously identified as carrying claims in the 2003 Australian food product survey and 2005 magazine survey³ respectively, also had related Internet health claims.

19

Although this result indicates that manufacturers are not more likely to make claims on the Internet compared to product labels and magazines, the types of claims and the average number of claims per website did vary and does warrant concern. Compared to the 2003 Australian food product survey, which found 1.1% of claims to be high level and 0.1% therapeutic¹¹, the current study found that from the survey of the websites of the top 20 food processing companies in Australia, 19.4% had high level claims and 0.3% therapeutic claims. 1

13

In comparison with the 2003 Australian food label survey which found that the average number of claims per product was 0.4, the current survey found a similar figure (0.3). However, the average number of Internet health claims per product identified in the 2003 Australian food product survey search and the 2005 magazine survey searches (ie products known to have claims and with associated websites) were much higher: 6.2 and 14.4 website claims per product respectively.

8

9 General level claims

10 77.2% of all Internet claims found on the top 20 food manufacturers' websites were general 11 level claims. This was expected, given current regulation which prohibits the use of most high 12 level claims. Of the general level claims, most were nutrient function claims (57.8%). A 13 nutrient function claim describes the role of a food, a nutrient [or biologically active 14 substance] in terms of normal growth and development. As this claim type does not reference 15 benefits above normally accepted nutrient functions, it is likely that claims of this nature can 16 be scientifically substantiated most easily, and therefore are more appealing to manufacturers.

17

However, the remaining general level claims would require independent substantiation under the proposed regulations for health claims and monitoring of these claims will be necessary to ensure that scientific substantiation is adequate, so as not to mislead consumers.

21

22 High level and therapeutic claims

19.4% of Internet claims found on the food manufacturers' websites were assessed as noncompliant (because they were non-approved high level or therapeutic claims). This study did
not attempt to examine whether such claims were adequately substantiated. In the 2003

survey of food product labels, 5.8% of health claims identified were non-compliant with current regulations. The reason for the greater frequency of high level claims on the websites is unknown. It may be that manufacturers are unaware that food regulations also apply to claims in this setting. Such a level of non-compliance in the Internet claims is cause for concern as it may pose a threat to the credibility of all claims, and it confirms that some health claims are currently being misused on the Internet.

7

A large number of the high level and therapeutic claims were located on teas. One possible reason is that some teas have successfully applied to be Listable Goods with the Therapeutic Goods Authority (TGA), meaning that some claims not currently permitted on foods might be permitted on these products, even though they are sold together in the same section of the supermarket. However, information on the presence of AUST-L numbers was not collected in this study.

14

15 Care is needed in interpreting the data on health benefits claimed (Table 5) since the 16 combination of information from the three sample sources means this data is not necessarily 17 representative of all Internet claims, but there seem to be some clear conclusions about the most commonly claimed benefits. Cardiovascular disease and cancer were referenced most 18 19 frequently in all claims. Although data into the frequency of the purchase of food products 20 carrying or not carrying health claims is limited, a US survey conducted in 2000 suggested 21 that over 50% of respondents were more likely to eat foods reported to reduce the risk of heart 22 disease and cancer 7 .

1 Location of claims

A key finding of this study is in relation to the location of claims on manufacturers' websites. A high proportion (78.6%) of Internet claims were found on web pages of the manufacturer's website, but not on the web page specifically advertising the food product. It is not entirely clear if such claims would be regarded as advertising or simply as dietary or nutrition information provided by the manufacturer. However these results on the presence of claims within manufacturers' websites provide valuable information to regulatory agencies indicating that entire websites need to be monitored and not solely the specific product pages.

- 1 Conclusions
- 2

The three search strategies applied in this study provided an overview of the use of health claims for foods on the Internet. The results indicate that health claims are not being made more frequently on the Internet compared to product labels and magazines, but the average number of claims per website compared to product labels is higher, and high level and therapeutic claims are used more frequently on websites. Further, the results showed that there are currently a high proportion of non-compliant claims appearing on Internet sites.

9

In regard to location, this study shows that health claims are not solely being made on web pages advertising food products, but rather that the majority of claims are being made on separate web pages within manufacturer websites.

13

Although this study surveyed only a limited sample of products, and was unable to include all food products available for sale in Australian supermarkets, it does provide useful baseline data for regulators. The results describe food categories which might commonly contain health claims and website locations where claims are commonly being made. Moreover, the high number of non-compliant claims found indicates that current regulation is not being enforced, suggesting that more effective processes of monitoring are required if the number of illegal claims made on the Internet is to be minimised.

21

In conclusion, the Internet is undoubtedly an area of advertising that requires closemonitoring, especially with the upcoming release of the new health claims standard.

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Table 1. Number of health claims found on websites associated with productsmanufactured by the top twenty Australian food processing companies [†]

Food category	Number of products located on top 20 manufacturers' websites	Total number of products with website claims	% of products with website claims	Total number of website claims	Mean number of website claims per product
Energy drinks	2	2	100.0	2	1.0
Fat spreads	20	11	55.0	19	1.7
Edible oils	18	9	50.0	18	2.0
Pasta	2	1	50.0	2	2.0
Yoghurt	52	25	48.1	71	2.8
Cheese	51	19	37.3	28	1.5
Teas	22	8	36.4	10	1.3
Breakfast cereals	47	12	25.5	29	2.4
Muesli bars	24	6	25.0	6	1.0
Canned vegetables	10	2	20.0	3	1.5
Bread	32	6	18.8	8	1.3
Cream	16	3	18.8	6	2.0
Milk	91	17	18.7	26	1.5
Frozen Meals	77	11	14.3	11	1.0
Spreads	44	5	11.4	16	3.2
Biscuits and crackers	188	15	8.0	31	2.1
Drink bases	13	1	7.7	1	1.0
Meat (fresh & canned)	31	1	3.2	1	1.0
Miscellaneous [‡]	44	1	2.3	1	1.0
Cake mixes	17	0	0	0	0
Canned fruit	6	0	0	0	0
Chips	1	0	0	0	0
Coconut cream/milk	1	0	0	0	0
Cooking sauces	70	0	0	0	0
Custard	34	0	0	0	0
Flour	3	0	0	0	0
Frozen pastry	6	0	0	0	0
Fruit bars	2	0	0	0	0
Ice creams	67	0	0	0	0
Juice	3	0	0	0	0
Juice (cold)	4	0	0	0	0
Noodles	4	0	0	0	0
Salad dressing	6	0	0	0	0
Salsa/pesto	20	0	0	0	0
Soft drink	18	0	0	0	0
Soups	2	0	0	0	0
Sports drinks	7	0	0	0	0
Sugar	13	0	0	0	0
Total	1068	155	14.5	289	0.3

[†] Goodman Fielder, Nestle Foods, Gardner Smith, Coca Cola Amatil, George Weston, Dairy Farmers, Australian Meat Holdings, CSR, National Foods, Murray Goulburn, Bonlac Foods, Effem Foods, Cadbury Schweppes, Inghams Enterprises, Unifoods, Arnotts, Ridley Corporation, Nippon Meat, Pauls, Kraft Foods.

Claim type a	and classification	Number of claims	% of total claims
General level claims	Nutrient function claim	167	57.8
	Enhanced nutrient function claim	33	11.4
	Risk reduction claim in relation to a non- serious disease or condition	1	0.3
	Whole-of-diet claims- non serious	e-of-diet claims- erious 0	
	Performance claim – non serious	20	6.9
	Life stage claim	0	0.0
	Implied	2	0.7
Total genera	al level claims	223	77.2
High level claims	Biomarker maintenance claim	7	2.4
	Biomarker enhancement claim	18	6.2
	Risk reduction claim in relation to a serious disease or condition	30	10.4
	Whole-of-diet claim- serious	0	0.0
	Performance claim – serious	1	0.3
	Slimming	0	0.0
Total high level claims		56	19.4
	Therapeutic claim	1	0.3
	Endorsement	9	3.1
Total		289	100.0

Table 2. Types of health claims found on websites associated with products manufactured by the top twenty Australian food processing companies

Food category [‡]	Number of products located on manufacturers' websites	Total number of products with website claims	% of products with website claims	Total number of website claims	Mean number of website claims per product
Juice (cold)	27	27	100	261	<mark>9.7</mark>
Rice	1	1	100	3	<mark>3.0</mark>
Soups	2	2	100	10	<mark>5.0</mark>
Sports drinks	4	4	100	7	<mark>1.8</mark>
Canned seafood	13	12	92.3	57	<mark>4.4</mark>
Drink bases	7	6	85.7	22	<mark>3.1</mark>
Juice	54	45	83.3	433	<mark>8.0</mark>
Sports bars	23	18	78.3	62	<mark>2.7</mark>
Milk	30	23	76.7	151	<mark>5.0</mark>
Spreads	12	7	58.3	17	<mark>1.4</mark>
Teas	37	20	54.1	48	<mark>1.3</mark>
Yoghurt	43	19	44.2	114	<mark>2.7</mark>
Breakfast cereals	39	15	38.5	75	<mark>1.9</mark>
Pasta	7	2	28.6	10	<mark>1.4</mark>
Frozen fish	16	4	25.0	16	<mark>1.0</mark>
Ice creams	34	5	14.7	25	<mark>0.7</mark>
Bread	23	1	4.3	4	<mark>0.2</mark>
Total (including categories with no claims)	o 372	211	40.7	1315	<mark>3.5</mark>

Table 3. Number of health claims found on websites related to 518 [†] products carrying
claims in the 2003 food product label survey ¹¹

[†] These products are those found to carry a health claim on their label in the 2003 study and which were not reported in Table 1.

[‡] The 47 food categories used in the 2003 survey were used in the current survey. However, the Internet searches did not reveal advertised website claims from all categories. Those food categories without claims have been omitted from the above table.

Food Category [‡]	Number of products located on top 20 manufacturers' websites	Total number of products with website claims	% of products with website claims	Total number of website claims	Mean number of website claims per product
Breakfast cereals	1	1	100	2	<mark>2.0</mark>
Cake mixes	2	2	100	3	<mark>1.5</mark>
Canned seafood	10	10	100	55	<mark>5.5</mark>
Drink bases	1	1	100	1	<mark>1.0</mark>
Milk	1	1	100	1	<mark>1.0</mark>
Teas	38	38	100	798	<mark>21.0</mark>
Ice creams	2	1	50.0	2	<mark>1.0</mark>
Canned fruit	12	5	41.7	15	<mark>1.3</mark>
Fat spreads	5	2	40.0	3	<mark>0.6</mark>
Total (including categories with no claims)	72	61	37.0	880	12.2

Table 4. Number of health claims found on websites related to 165¹ products carrying
claims in a 2005 survey of magazine advertisements [†]

[†] These products were those for which a health claim was made in a print media advertisement as revealed in a 2005 survey of magazine advertisements (unpublished data) and which were not included in Table 1. The magazines surveyed were: Australian Women's weekly, Woman's Day, New Idea, That's Life, Super Food Ideas, Readers Digest, TV Week, Better Homes & Gardens, Take 5, Cosmopolitan, Cleo, NW, Australian Good Taste, Dolly, Who Weekly, K-Zone, Girlfriend, Burkes Backyard, Australian House & Garden, FHM, Delicious, Marie Claire, Ralph, Fresh, Australian Family Circle, New Woman, Total Girl, Weight Watchers, Australian Home Beautiful, Donna Hay.

[‡] The 47 food categories used in the 2003 food product survey ¹¹were used in the current survey. However, the Internet searches did not reveal advertised website claims from all categories. Those food categories without claims have been omitted from the above table.

Claim type	Health benefit claimed	Nutrient/property	% of claims
	Blood glucose levels	Fibre	45.5
Biomarker	Cholesterol	Plant Sterols	
maintenance claim $(n = 11)$	Blood glucose levels Glycaemic Index		9.1
	Homocysteine Vits B6, B12 & folat		9.1
	Triglycerides Omega 3		9.1
		U	100.0%
	Blood glucose	Catechins	25.0
	Blood pressure Catechins		25.0
	Cholesterol Catechins		25.0
	Cholesterol	Vitamin E	5.9
	Blood pressure	DHA	4.6
Biomarker	Blood pressure	Protein	3.9
enhancement claim $(n - 152)$	Cholesterol	Unsaturated oils	3.3
(n = 1.52)	Blood glucose	Glycaemic Index	2.6
	Cholesterol	Fibre	2.0
	Blood glucose	Fibre	1.3
	Cholesterol	sterol Plant sterols	
	Cholesterol	Omega 3 and 6	0.7
_		U	100.0%
	Cardiovascular disease	Whole food	24.7
	Cancer	Flavonoids	16.1
	Cardiovascular disease	Flavonoids	16.1
	Osteoporosis	Calcium	9.8
	Cancer	Whole food	8.6
	Death	Whole food	8.6
	Cancer	Soy	2.3
	Cardiovascular disease	Soy	2.3
Risk reduction claim	Arthritis	DHA	1.6
in relation to a serious	Cardiovascular disease	DHA	1.6
disease or condition	Depression	DHA	1.6
(n = 435)	Cancer	Fibre	1.4
	Cardiovascular disease	Grain foods	1.4
	Diabetes	Grain foods	1.4
	Neural tube defects	Folate	0.9
	Cancer	Lycopene	0.5
	Cardiovascular disease	Lycopene	0.5
	Gum disease	Fluoride	0.5
	Cardiovascular disease	Vitamin E	0.2
	Cardiovascular disease	Vitamin C	0.2
			100.0%

Table 5. Health benefits recorded in the high level and therapeutic claims found from all three Internet search strategies

Whole-of-diet claim- serious	Cholesterol	Whole food	
(n = 1)			100.0
			100.0%
Performance claim – serious	Immune system	Probiotics	
(n = 1)			100.0
			100.0%
Slimming	Weight loss	Fibre	50.0
(n = 20)	Weight loss	Whole food	50.0
			100.0%
	Cardiovascular disease	Whole food	25.9
	Atherosclerosis	Antioxidants	13.0
	Cancer	Antioxidants	13.0
	Cancer	Whole food	13.0
	Dental Caries	Fluoride	13.0
Therapeutic claim	Blood pressure	Catechins	13.0
(n = 293)	Diarrhoea	Probiotics	6.5
	Osteoporosis	Calcium	1.0
	Cold and Flu	Whole food	0.7
	Age related health risks	Antioxidants	0.3
	Cardiovascular disease	Omega 3	0.3
	Cardiovascular disease	Vitamin C	0.3
			100.0%