

## Short Communication

## Health and nutrition content claims on Australian fast-food websites

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**Abstract**

*Objective:* To determine the extent that Australian fast-food websites contain nutrition content and health claims, and whether these claims are compliant with the new provisions of the Australia New Zealand Food Standards Code ('the Code').

*Design:* Systematic content analysis of all web pages to identify nutrition content and health claims. Nutrition information panels were used to determine whether products with claims met Nutrient Profiling Scoring Criteria (NPSC) and qualifying criteria, and to compare them with the Code to determine compliance.

*Setting:* Australian websites of forty-four fast-food chains including meals, bakery, ice cream, beverage and salad chains.

*Subjects:* Any products marketed on the websites using health or nutrition content claims.

*Results:* Of the forty-four fast-food websites, twenty (45%) had at least one claim. A total of 2094 claims were identified on 371 products, including 1515 nutrition content (72%) and 579 health claims (28%). Five fast-food products with health (5%) and 157 products with nutrition content claims (43%) did not meet the requirements of the Code to allow them to carry such claims.

*Conclusions:* New provisions in the Code came into effect in January 2016 after a 3-year transition. Food regulatory agencies should review fast-food websites to ensure compliance with the qualifying criteria for nutrition content and health claim regulations. This would prevent consumers from viewing unhealthy foods as healthier choices. Healthy choices could be facilitated by applying NPSC to nutrition content claims. Fast-food chains should be educated on the requirements of the Code regarding claims.

**Keywords**  
Fast food  
Food labelling  
Health claims  
Food policy

Over 63% of Australian adults are overweight or obese<sup>(1)</sup>. Australians are spending an increasing proportion of their budget on eating out and fast foods<sup>(2)</sup>. More than 50% of Australians eat at a fast-food outlet at least once each month, with the average fast-food consumer visiting four times each month; the equivalent of 11.5 million fast-food consumers each month in Australia<sup>(3)</sup>. An obesogenic environment encourages excess consumption of unhealthy foods and discourages physical activity<sup>(4)</sup>. The obesogenic environment encouraging frequent fast-food consumption contributes to population weight gain<sup>(4,5)</sup>. Claims on food labels are one environmental aspect influencing food choices<sup>(6)</sup> and consumption<sup>(7,8)</sup>. However, food companies often use nutrition content claims (NCC) and health claims (HC) on unhealthy products<sup>(9,10)</sup> and as marketing tools on their

websites<sup>(11)</sup>. This is potentially misleading, as consumers evaluate products with claims as healthier than those without<sup>(7)</sup>.

Food Standards Australia and New Zealand (FSANZ) regulates HC and NCC under the Australia New Zealand Food Standards Code ('the Code')<sup>(12)</sup>, Standard 1.2.7. The Code states that NCC highlight the presence or absence of a nutrient (e.g. 'contains calcium'); that general-level HC state, suggest or imply that a food or food property has a health effect (e.g. 'contains calcium for strong bones'); and that high-level HC refer to a serious disease or biomarker (e.g. 'contains calcium to prevent osteoporosis')<sup>(12)</sup>.

Previously, only high-level HC and NCC relating to fatty acids were regulated by the Code, and NCC were industry

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self-regulated<sup>(13)</sup>. After years of consultation including a 3-year transition period, claims have been regulated in a stepwise manner since January 2016. Under Standard 1.2.7, NCC must only meet qualifying criteria for the presence or absence of the claimed nutrient<sup>(12)</sup>. General-level HC must meet the NCC conditions; meet the Nutrient Profiling Scoring Criteria (NPSC) based on the energy, saturated fat, sugars, sodium, fibre and fruit, vegetable nut and legume (FVNL) content of the food<sup>(14)</sup>; and there must be significant evidence of the claimed diet–disease relationship<sup>(12)</sup>. Additionally, high-level HC require pre-approval by FSANZ<sup>(12)</sup>.

Previous research in specific grocery categories found that one-third of products with HC on labels did not meet the NPSC<sup>(9)</sup> and 15% of grocery food websites contained claims<sup>(11)</sup>. Although the Code applies to all foods including fast foods<sup>(15)</sup>, there has been no research on the extent to which fast-food chains use claims or the healthiness of fast-food products with claims, and it is unknown whether they are eligible to carry claims. The present study investigated Australian fast-food chain websites to determine the extent that chains use NCC and HC, and whether the claims comply with the Code.

## Methods

Under New South Wales state menu labelling legislation, all fast-food chains with more than twenty stores in New South Wales or fifty in Australia must display the energy (kilojoule) content of products on menu boards along with an average adult daily energy intake anchor statement<sup>(16)</sup>. Due to this requirement, these chains were the most likely to have nutrition information available to allow nutrient profiling of products. During data collection, forty-four chains were covered by the legislation and included in the present study. These reflect the largest chains in Australia. This included meal (burger, Mexican and Asian chains), bakery, ice cream, beverage and salad chains.

In May 2015, every page of each chain's Australian website was systematically viewed by one author, by clicking on every page in the sitemap of each website. The URL of the

pages containing products with associated claims were recorded and claims were cross-checked by a second author independently to ensure all were captured. Any discrepancies (*n* 11) were discussed until consensus was reached. A product associated with a claim was any menu item that was shown in conjunction with a NCC or HC. Data were collected on the types of claims found and nutrition information necessary to apply the NPSC<sup>(14)</sup> (Table 1). Any missing data, such as nutrition information or FVNL content, were obtained by contacting the chains. When FVNL content could not be obtained (*n* 17), values were estimated based on ingredients lists and imagery from the chain's website. The FVNL content must be more than 40% before it affects the NPSC<sup>(17)</sup>. Of these, twelve products (71%) met the NPSC regardless of FVNL content, and the other five were unlikely to have 40% FVNL content (e.g. raisin toast, tuna, egg and lettuce wrap). When fibre was missing (*n* 30), it was omitted from the NPSC calculation; however, twelve products (40%) met the NPSC without fibre and the other eighteen (60%) did not include fibre-containing ingredients (e.g. flavoured milk drink, ice cream).

Each product with an associated claim was assessed to determine compliance with Standard 1.2.7<sup>(12)</sup>. This included comparing the product's nutrient composition with the specific nutrient levels required to allow it to have a claim, called the 'qualifying criteria', and the NPSC<sup>(14)</sup> to assess eligibility for HC. Claims about ingredients (e.g. falafels from a kebab) and blanket claims on entire menus or product groups were analysed separately, as many of these did not have nutrition information available to determine the NPSC.

Proportions of NCC and HC that met the NPSC and the qualifying criteria were calculated. The total number of claims assessed as non-compliant was also calculated.

## Results

Of the forty-four fast-food chain websites included, twenty (45%) contained at least one claim. The additional

**Table 1** Data collected from fast-food chain websites

| Category                   | Sub-category                | Details  |
|----------------------------|-----------------------------|--|
| Item type                  | Product                     | The name of the product the claim related to   |
|                            | Ingredient                  | The name of the ingredient the claim related to  |
|                            | Menu                        | If the claim was made on the entire menu or groups of products (a section of the menu) |
| Claim type                 | Nutrition content           | Verbatim wording for each claim found  |
|                            | Health                      |  |
|                            | General level<br>High level |  |
| Nutrient information/100 g | Energy (kJ)                 | Information required to allow nutrient profiling to be conducted                       |
|                            | Saturated fat (g)           |  |
|                            | Sugars (g)                  |  |
|                            | Sodium (mg)                 |  |
|                            | Fibre (g)                   |  |
|                            | FVNL (%)                    |  |
| Ingredients list           | FVNL (%)                    |  |

FVNL, fruit, vegetable, nut and legume.

twenty-four chains were excluded from the following analysis. Overall, 401 products ( $n$  371, 92%), ingredients ( $n$  27, 7%) and menus ( $n$  3, 1%) carried claims.

### **Claims on products**

A total of 2094 claims were identified on the 371 products, of which 1515 (72%) were NCC and 579 (28%) were HC. Of the HC, forty-five (8%) were high level, relating to fibre and maintaining steady cholesterol levels.

As seen in Table 2, the largest proportion of products with claims and the majority of claims were in bakery chains. Bakers Delight had the most products with claims ( $n$  91) and the most claims ( $n$  1325). Products had up to thirty-five claims per product (e.g. one bread product had eighteen NCC (B-vitamins,  $n$  1; fibre,  $n$  6; folate,  $n$  1, glycaemic index (GI),  $n$  3, iron,  $n$  1; kilojoules,  $n$  1; magnesium,  $n$  1; protein,  $n$  1; saturated fat,  $n$  2; and sugar,  $n$  1) and seventeen HC ('antioxidants and good health',  $n$  1; 'fibre and maintenance of steady blood sugar levels',  $n$  1; 'fibre and good health',  $n$  1; 'fibre for a healthy heart',  $n$  2; 'low GI and sustained energy',  $n$  1; 'low GI and satiety',  $n$  1; 'low GI and slower digestion',  $n$  1; 'saturated fat for a healthy heart',  $n$  2; 'saturated fat and weight maintenance',  $n$  1; 'sugars and weight maintenance',  $n$  1; 'lower kilojoules and weight maintenance',  $n$  1; 'vitamins and minerals and good health',  $n$  1; 'low sodium for a healthy heart',  $n$  2; 'fibre for maintaining steady cholesterol levels',  $n$  1)). The average number of NCC on products with NCC was four, and the average number of HC on products with HC was five.

Table 3 shows the proportion of products with an associated claim that did not meet either the NPSC and/or the qualifying criteria for each claim. Although NCC do not have to meet the NPSC<sup>(12)</sup>, of the products with associated HC, five (5%) did not meet the NPSC and 157 (42%) did not meet the qualifying criteria. Of the 371 products with claims, 147 (39%) could not be compared against the Code due to missing nutrition information that was unable to be obtained from chains, as they either refused to provide it or stated they did not have this information. These products had 679 NCC (45%) and 308 HC (53%) associated with them.

There were forty-one different types of NCC; the most common were 'contains/high fibre' ( $n$  365), 'low/reduced fat' ( $n$  207) and 'contains/high protein' ( $n$  172). There were sixty-four different HC; the most common were 'antioxidants for wellbeing' ( $n$  55), 'fibre for health' ( $n$  52), and 'fibre to maintain blood sugar levels' and 'vitamins and minerals for health' (both  $n$  47).

### **Claims about ingredients**

Of the twenty-seven ingredient claims, eleven (41%) were primary produce, such as vegetables, eggs or meat. The remaining were other ingredients that are added to products, such as different types of tea, falafels added to doner kebabs and ingredient 'boosters' (e.g. powdered wheatgrass) that are added to beverages. While nineteen

products (70%) did not have nutrition information available, of the eight that did, three (11% of ingredient claims) did not meet the NPSC and one low-fat claim was considered non-compliant due to excessive levels of fat.

### **Claims on menus or groups of products**

There were three blanket claims relating to either a whole menu or a group of products. Although these claims, such as 'enriched with nutrients', 'low GI' or 'bursting with protein', are likely to apply to some products, they were not applicable to the entire menu or product range. The claim on the group of products was for a milkshake range, claiming to be 'great for topping up calcium levels'. These products had no nutrition information available to enable comparison with the Code.

### **Other observations**

Most HC ( $n$  531, 87%) were not on the list of pre-approved general-level HC. Some claims related to a food rather than a nutrient, for example 'superfruit for immunity'. Many chains provided general information on healthy eating and nutrition separate to the claims on products, and these are not covered by the Code.

## **Discussion**

Our study showed that 5% of fast-food products with HC and 43% of products with NCC did not meet the requirements of the Code to allow them to carry these claims. This may be due to errors in the online nutrition information or misinterpretation of the Code by the chains. As all advertising for food products, including websites, is covered by the Code<sup>(15)</sup>, the products associated with these claims may be considered non-compliant with the Code.

Claims on fast-food products can lead to more favourable customer attitudes<sup>(7)</sup> and unhealthier product selections<sup>(18)</sup>. Australian fast foods can be high in energy, saturated fat, sugars and/or sodium<sup>(19–21)</sup>; therefore claims about such products may increase the consumption of these nutrients of public health concern, negatively influencing the population's diet. This is important considering the chains with more claims that also had potentially non-compliant claims were those that are often marketed as healthier, such as bakery, salad and juice chains.

Food manufacturers use NCC to highlight only the positive aspects of products that have negative attributes, such as marketing a high-sugar product as low-fat<sup>(22)</sup>. Our results show this is occurring in fast foods also. To prevent this, the Code should be amended to require products with associated claims to meet the NPSC. This will ensure that only healthier products can carry NCC and reduce the potential for people to be misled by claims on unhealthy products.

Food manufacturers may make general-level HC without FSANZ pre-approval, but the company must have sufficient evidence substantiating the claim and notify FSANZ of the

**Table 2** The number and proportion of products with claims and the number and proportion of claims, by chain type and chain, in a systematic content analysis of all web pages on forty-four Australian fast-food websites, May 2015

| Type of chain              | Chain names         | Number of products with claims<br>(% total products with claims) |     |          |     |          |     | Number of claims (% total claims) |      |          |     |          |      | Examples of products with claims                                  |
|----------------------------|---------------------|--|-----|----------|-----|----------|-----|-----------------------------------|------|----------|-----|----------|------|---|
|                            |                     | Nutrition<br>content   |     | Health   |     | Total*   |     | Nutrition<br>content†             |      | Health†  |     | Total    |      |   |
|                            |                     | <i>n</i>   | %   | <i>n</i> | %   | <i>n</i> | %   | <i>n</i>                          | %    | <i>n</i> | %   | <i>n</i> | %    |   |
| Meals                      | McDonald's          | 1  | 0.3 | 0        | 0   | 1        | 0.2 | 1                                 | 0.06 | 0        | 0   | 1        | 0.04 | Reduced-fat smoothie  |
|                            | Subway              | 9  | 2   | 0        | 0   | 9        | 2   | 9                                 | 0.6  | 0        | 0   | 9        | 0.4  | Reduced-fat sub sandwich  |
|                            | Grill'd             | 1  | 0.3 | 0        | 0   | 1        | 0.2 | 1                                 | 0.06 | 0        | 0   | 1        | 0.04 | Potato chips (fries)  |
|                            | Mad Mex             | 2  | 0.5 | 0        | 0   | 2        | 1   | 2                                 | 0.1  | 0        | 0   | 2        | 0.1  | 'Naked' burrito (no tortilla), low-fat corn chips                 |
|                            | Salsas              | 1  | 0.3 | 0        | 0   | 1        | 0.2 | 1                                 | 0.06 | 0        | 0   | 1        | 0.04 | Bowl marketed as 'higher protein'                                 |
|                            | Zambrero            | 5  | 1   | 0        | 0   | 5        | 1   | 20                                | 1    | 0        | 0   | 20       | 1    | Bowls marketed as 'higher protein'                                |
|                            | Noodle Box          | 5  | 1   | 0        | 0   | 5        | 1   | 5                                 | 0.3  | 0        | 0   | 5        | 0.2  | Reduced-fat noodle, stir fry and rice dishes                      |
|                            | Subtotal            | 24   | 7   | 0        | 0   | 24       | 6   | 39                                | 3    | 0        | 0   | 39       | 2    |   |
| Bakery                     | Bakers Delight      | 91   | 25  | 62       | 63  | 91       | 25  | 813                               | 54   | 512      | 88  | 1325     | 63   | Breads, rolls and pastries  |
|                            | BreadTop            | 2  | 0.5 | 0        | 0   | 2        | 1   | 2                                 | 0.1  | 0        | 0   | 2        | 0.1  | Loaves of bread   |
|                            | Brumby's            | 27   | 7   | 25       | 26  | 27       | 7   | 49                                | 3    | 50       | 9   | 99       | 5    | Wholemeal or grain bread  |
|                            | Donut King          | 7  | 2   | 3        | 3   | 7        | 2   | 14                                | 0.9  | 3        | 0.5 | 17       | 1    | Reduced-fat smoothies and milkshakes                              |
|                            | Muffin Break        | 28   | 8   | 2        | 2   | 29       | 8   | 35                                | 2    | 3        | 0.5 | 38       | 2    | Reduced-fat or high-fibre muffins                                 |
|                            | Subtotal            | 155  | 42  | 92       | 94  | 156      | 42  | 913                               | 60   | 568      | 98  | 1481     | 71   |   |
| Ice cream & frozen yoghurt | Baskin Robbins      | 2  | 0.5 | 0        | 0   | 2        | 1   | 2                                 | 0.1  | 0        | 0   | 2        | 0.1  | No added sugar ice cream  |
|                            | New Zealand Natural | 12   | 3   | 0        | 0   | 12       | 3   | 22                                | 1    | 0        | 0   | 22       | 1    | Reduced-fat smoothies   |
|                            | Wendy's             | 23   | 6   | 0        | 0   | 23       | 6   | 42                                | 3    | 0        | 0   | 42       | 2    | Low-fat sorbet, reduced-fat smoothies and ice cream               |
|                            | Yogurberry          | 3  | 0.8 | 0        | 0   | 3        | 1   | 5                                 | 0.3  | 0        | 0   | 5        | 0.2  | Frozen yoghurt  |
|                            | Subtotal            | 40   | 11  | 0        | 0   | 40       | 11  | 71                                | 5    | 0        | 0   | 71       | 3    |   |
| Beverages                  | Gloria Jeans        | 4  | 1   | 0        | 0   | 4        | 1   | 4                                 | 0.3  | 0        | 0   | 4        | 0.2  | Reduced-fat smoothies   |
|                            | Boost Juice         | 39   | 11  | 5        | 5   | 43       | 12  | 110                               | 7    | 10       | 2   | 120      | 6    | Juices, reduced-fat and/or high-protein smoothies, protein snacks |
|                            | Subtotal            | 43   | 12  | 5        | 5   | 47       | 13  | 114                               | 8    | 10       | 2   | 124      | 6    |   |
| Salad                      | Sumo Salad          | 104  | 28  | 1        | 1   | 104      | 28  | 378                               | 25   | 1        | 0.1 | 379      | 18   | Low-fat and/or high-protein salads and wraps, yoghurt             |
|                            | Subtotal            | 104  | 28  | 1        | 1   | 104      | 28  | 378                               | 25   | 1        | 0.1 | 379      | 18   |   |
| Total products/claims      |                     | 366  | 100 | 98       | 100 | 371      | 100 | 1515                              | 100  | 579      | 100 | 2094     | 100  |   |

\*Some products had both nutrition content claims and health claims; therefore the total is not the sum of these columns.

†May not add to 100 % due to rounding.

**Table 3** Number and proportion of products with each type of claim compared with the provisions of the Australia New Zealand Food Standards Code, and the proportion of products that could not be assessed against the Code, in a systematic content analysis of all web pages on forty-four Australian fast-food websites, May 2015

| Product, ingredient or menu | Claim type               | No. of products with claims | No. of products that did not meet NPSC   | %  | No. of products that did not meet nutrient qualifying criteria   | %  | No. of products not able to be assessed due to missing information                          | %   |
|-----------------------------|--------------------------|-----------------------------|--|----|--|----|---|-----|
| Products                    | Nutrition content        | 365                         | 78*  | 21 | 157‡   | 43 | 144   | 39  |
|                             | Health                   | 98                          | 5‡   | 5  | 13‡  | 13 | 65  | 66  |
|                             | High-level health        | 45                          | 2‡   | 4  | 1‡   | 2  | 0   | 0   |
|                             | Total†                   | 371                         | 81   | 22 | 157‡   | 42 | 147   | 39  |
|                             | Chains with these claims |                             | Bakers Delight, Baskin Robbins, Boost Juice, BreadTop, Gloria Jeans, McDonald's, Muffin Break, Sumo Salad, Wendy's, Yogurberry |    | Bakers Delight, Baskin Robbins, Boost Juice, Brumby's, Grill'd, Mad Mex, Muffin Break, Sumo Salad, Wendy's |    | Bakers Delight, Boost Juice, BreadTop, Donut King, New Zealand Natural, Wendy's, Yogurberry |     |
| Ingredients                 | Nutrition content        | 22                          | 0  | 0  | 2  | 9  | 20  | 91  |
|                             | Health                   | 13                          | N/A  |    | N/A  |    | 13  | 100 |
|                             | High-level health        | 1                           | N/A  |    | N/A  |    | 1   | 100 |
|                             | Total†                   | 27                          | 0  | 0  | 2  | 7  | 25  | 93  |
|                             | Chains with these claims |                             | N/A  |    | Ali Baba, Boost Juice  |    | Ali Baba, Boost Juice, Chatime, Grill'd   |     |
| Menus                       | Nutrition content        | 3                           | N/A  |    | N/A  |    | 3   | 100 |
|                             | Health                   | 0                           | N/A  |    | N/A  |    | N/A   |     |
|                             | Total                    | 3                           | N/A  |    | N/A  |    | 3   | 100 |
|                             | Chains with these claims |                             | N/A  |    | N/A  |    | Ali Baba, Donut King  |     |

\*Under the Code, nutrition content claims are not required to meet the Nutrient Profiling Scoring Criteria (NPSC).

†Some products were associated with both nutrition content and health claims; therefore the total is not the sum of the products with nutrition claims and health claims.

‡Indicates the products that may be non-compliant with the Code.

food–health relationship intended to be the subject of a claim<sup>(12)</sup>. These notified claims are listed on the FSANZ website<sup>(23)</sup>. None of the fast food HC had been listed; therefore it is unclear whether there is evidence for the food–health relationships claimed. These should be investigated by enforcement agencies.

Although the results indicate potential non-compliance with the Code, 45% of NCC and 53% of HC could not be assessed due to missing information. While the Code states that grocery foods carrying NCC must have nutrient values listed in the nutrition information panel, this does not apply for food for catering purposes, where the information must be provided to purchasers on request<sup>(24)</sup>. As the products in the present study were not purchased, researchers were unable to obtain nutrition information to assess all claims and it is unknown if the chains have this information available in-store. However, should the chain be unable to provide this on purchase, these claims may be non-compliant.

Nutrient values for some products, such as fibre content, were missing from the online nutrition information and not provided by the chains. This resulted in fibre being excluded from the NPSC calculations for these products. However, this did not affect the NPSC of these products. Similarly, chains did not list product ingredient proportions; the FVNL contents were often estimated. This is likely to have been inaccurate in some instances. However, as a food must have at least 40% FVNL content to affect the NPSC score, this did not affect the majority of these products.

Our study highlights ambiguity in the Code. Ingredients and menus could not be compared due to missing nutrition information. However, even with nutrition information available, it is unclear how groups of products are assessed in the Code. Further, general healthy eating and nutrition information was excluded as it did not refer to specific products, even though this information sometimes referred to health benefits of consuming certain nutrients or ingredients. Claims that imply health effects are considered HC<sup>(12)</sup>; however, it is unclear how, and if, this applies to ingredients or general information.

As the present study considered websites, it is unknown whether chains are using claims in-store. Given that fast-food customers rarely access online nutrition information prior to purchasing<sup>(25,26)</sup>, it is unknown how influential online claims are at the point of purchase. However, online information is influential when choosing which chain to visit<sup>(27)</sup>; therefore ensuring these claims are accurate should be required of the fast-food industry.

A limitation is that the study relied on nutrition information provided by the chains and was not independently verified. However, the Australian Competition and Consumer Act 2010 prevents incorrect labelling<sup>(28)</sup> and therefore we assumed that all nutrition information provided by the chains was correct. Further, only websites of forty-four fast-food chains were included; therefore other chains may be making claims.

Finally, the study was conducted just before the end of the 3-year phase-in period. Therefore the study should be

repeated now that the Standard is mandated, to determine compliance. Should chains continue to use marketing claims that do not meet the requirements of the Code, enforcement should be stronger.

## Conclusion

The present study aimed to determine the extent that fast-food chain websites contain NCC and HC, and whether these claims are compliant with the Code. Almost half of the websites investigated had at least one claim. Of the NCC on fast-food websites, 42% could be considered non-compliant with the Code. Although this advertising avenue has not been scrutinised previously, it should be reviewed by Australian food regulators. The Code should be enforced to ensure that fast-food chains are not making claims on websites if the nutrient composition of those foods does not meet the qualifying criteria. Given that many fast foods are unhealthy, such claims potentially mislead consumers to believe the foods are healthy. Fast-food chains should be educated on the requirements for making claims and action should be taken by Australian food agencies to ensure that chains are aware of, and compliant with, the requirements for making NCC and HC. Further improvements to the Code should require that products with NCC meet NPSC.

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