



COORDINATED SAMPLING PROJECT 37 – NUTRITIONAL CLAIMS II

Conducted May 2023 with Local Governments across Western Australia



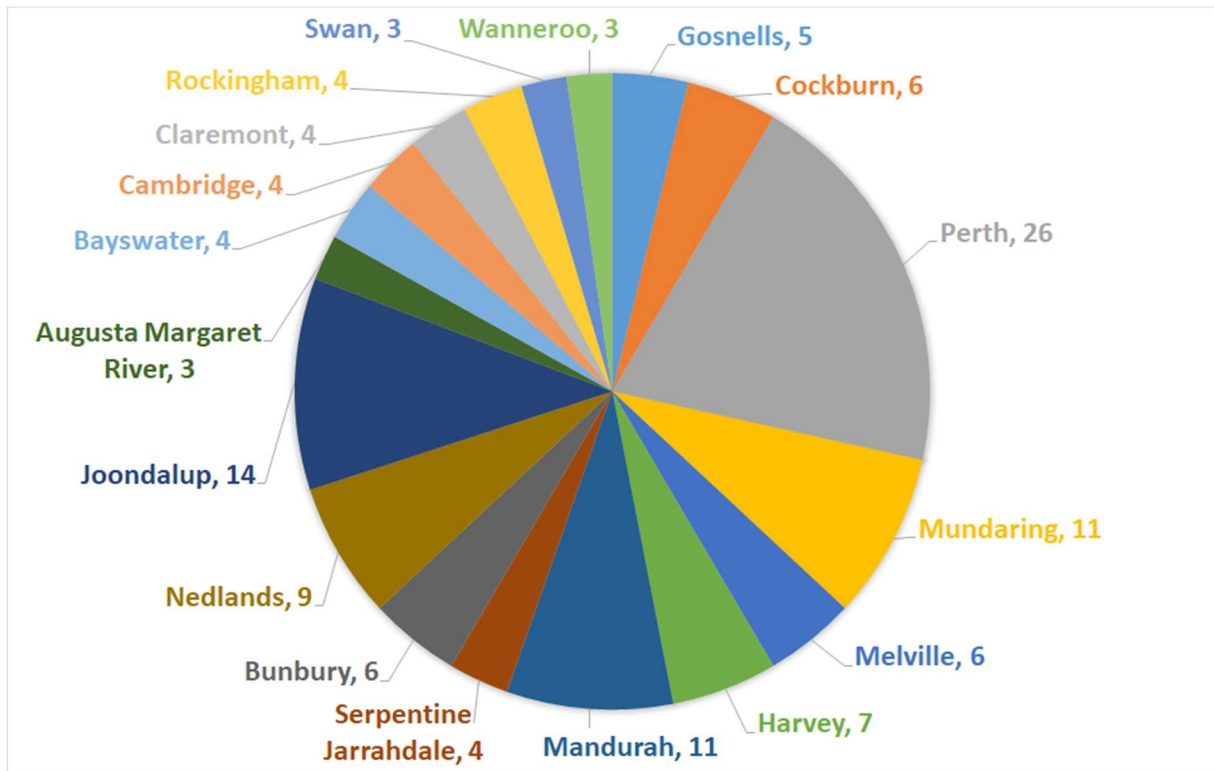
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Shire of Augusta Margaret River, City of Bayswater, City of Bunbury, Town of Cambridge, Town of Claremont, City of Cockburn, City of Gosnells, Shire of Harvey, City of Joondalup, City of Mandurah, City of Melville, Shire of Mundaring, City of Nedlands, City of Perth, City of Rockingham, Shire of Serpentine Jarrahdale, City of Swan and City of Wanneroo.

Figure 1 - Number of samples submitted by each LGA



Executive Summary

This Coordinated Sampling Project (CSP) tested the nutritional claims made by unpackaged locally prepared food from restaurants, cafes and take-aways to see if they were compliant with the requirements of the Australia and New Zealand Food Standards Code (FSC).

While most people enjoy eating a wide range of foods, it is increasingly common for people to avoid certain foods due to health reasons – allergies and intolerances are a powerful force in shaping a person's diet and food choices. In Australia, food labelling and food product nutritional claims are regulated by legislation that sets out clear standards for what claims can be made based on the food content.

LGAs were asked to submit unpackaged locally prepared food that included nutritional claims from restaurants, cafes and take-aways in their area for testing. The resulting data was then compared to the nutritional claim standards to assess whether the products were compliant with their nutritional claims.

Inaccuracies in food product nutritional claims were identified in 27% of the food products sampled as part of this survey.

None of the products tested for 'almond free' or 'sugar free' nutritional claims were compliant, and only 42% of products tested for lactose were compliant with a 'lactose free' claim. Products tested for gluten were 85% compliant, and products tested for fibre, egg and peanut compliance were 100% compliant.

92% of the tests were either a gluten or dairy test - the much smaller number of other tests affects the generalisability of these results.

As a result of this survey, LGAs should consider:

- Reviewing the sample results and determine if further action is required. This determination should include a review of the lab results against the relevant Code provisions and consider your local governments' compliance and enforcement strategy.
- It is suggested that you inform the retail outlet of any non-compliant results.
- Where allergen claims are made, results indicating that the claims are incorrect need specific attention. Factors that can guide further action include whether quantities of the food remain in storage and have not yet been sold, if food is sold at other locations or is subsequently packaged and sold for catering purposes.
- If the product is manufactured outside of your local government area, it is suggested that you write to the manufacturer and the relevant Local Government.
- Further sampling is recommended for any products where non-compliant allergen claims are being made.

Detailed results from this CSP are available upon request. Please [contact LHAAC](#) for more information.

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List of Abbreviations

AT	Agrifood Technology
CSP	Coordinated Sampling Project
EHO	Environmental Health Officer
FSANZ	Food Standards Australia and New Zealand
FSC	Australia New Zealand Food Standards Code
LGA	Local Government Authority/ies
LHAAC	Local Health Authorities Analytical Committee
WA	Western Australia

1.0 Introduction

1.1 Food allergies and intolerances

While most people enjoy eating a wide range of foods, for some, choosing the food they eat is a minefield. It is increasingly common for people to avoid certain foods due to health reasons (1) and allergies and intolerances are a powerful force in shaping a person's diet and food choices.

Food allergies occur in 4-8% of children and 2% of adults in Australia, with the most common allergens being cow's milk (dairy), egg, peanut, tree nuts, sesame, soy, fish, shellfish and wheat. The prevalence of food allergies is increasing in Australia over time (1). When triggered, food allergies can result in a range of symptoms, such as a rash, swelling, vomiting, shortness of breath or collapse – allergies have the potential to be fatal (2).

Food intolerances are more common than allergies and affect approximately 25% of Australians. Reactions can result in a range of symptoms including issues with skin, the digestive tract and nervous system (3). While not life-threatening, food intolerances affect many people and can cause significant discomfort if triggering foods are eaten.

To avoid accidentally triggering a person's food allergies or intolerances, businesses must ensure that their foods are correctly labelled.

1.2 Nutritional claims and food labelling

In Australia, food labelling and food product nutritional claims are regulated by the [Australia New Zealand Food Standards Code \(FSC\)](#). This legislation sets out clear standards for how food should be labelled and what nutritional claims can be made based on the content of the food.

Nutritional claims are specific statements about the content of nutrients or substances in a food, such as 'low sugar', 'lactose free' or 'good source of dietary fibre'. There are certain conditions that foods need to meet to be permitted to use the nutritional claims, detailed in Schedule 4 of the FSC (4, 5). In addition to nutritional claims, correct food labelling for common allergens is also a part of the FSC. Standard 1.2.3 states that common allergens such as egg, gluten, milk or peanut must be declared on food labels (6).

These standards help people make informed, safe choices about the foods they eat and avoid foods that trigger allergies or intolerances. The consequences for inaccurate food labelling vary, but can be as severe as life-threatening anaphylaxis. Inaccurate labelling may cause potential harm to customers, reputational damage and/or legal issues for local businesses (7), therefore it is essential for local businesses to ensure that their food products are accurately labelled and not misleading.

1.3 Food labelling in local businesses

Many restaurants, cafes and take-aways sell foods with nutritional claims, as providing a range of foods for different dietary requirements is desirable and necessary for most food businesses. However, even with the best of intentions, a food labelled with nutritional claims may not be compliant with the standards set out in the FSC, for example:

- Ingredients used to make food products may contain traces of allergens. They may be:
 - labelled incorrectly,
 - have uncommon allergen names (e.g. whey is a milk product that will trigger lactose sensitivities),
 - have been reformulated, or
 - have ingredients that been substituted for another ingredient.
- Equipment used to make food products may be contaminated with allergens from other products.
- Staff may lack training on food preparation in regards to allergens, or a lack of communication between staff may result in contamination (8).

It is important that businesses understand the ingredients and processing of the food products they sell, as well as ensuring that staff are well training in food allergen management. In the UK, 59% of food-related anaphylaxis hospitalisations are a result of eating contaminated foods in catering establishments, and in the United States a study reported 53.9% of food allergy reactions occurred despite restaurant staff being notified (9). Given the high risk and likelihood of harm, food businesses must remain vigilant in their food preparation practices.

2.0 Project aim

In order for consumers to make safe and informed food purchases, they must be provided with accurate information regarding a food's content and nutritional claims – especially if they have a food allergy or intolerance.

This CSP tested the nutritional claims made by unpackaged locally prepared food from restaurants, cafes and take-aways to see if they were compliant with FSC standards, specifically *1.2.3 – Information requirements – warning statements, advisory statements and declarations* and *1.2.7 Nutrition, health and related claims*.

3.0 Methodology

Sampling instructions were supplied to all WA LGAs. Both metropolitan and non-metropolitan LGAs were encouraged to participate in this CSP.

The sampling instructions explained the concepts of nutritional claims and asked LGAs to submit unpackaged locally prepared food from restaurants, cafes and take-aways in their area for testing by 12 May 2023. These were analysed against the claims made by the samples (e.g. gluten free, no sugar).

Sample testing was conducted by Agrifood Technology, and further post-test data analysis was conducted using Microsoft Excel. The data provided by Agrifood was compared to the nutritional claim standards as specified in Table 1 below. Samples were classified as compliant if they met the standard below, or non-compliant if they were not. Trace results were counted as non-compliant results.

Some assumptions about testing and nutritional claims were made when analysing the data – these can be found in the Notes section of Table 1.

Table 1 - Nutritional claim standards

Category	Standard	Notes
Gluten free (4)	The food must not contain: (a) detectable gluten; or (b) oats or oat products; or (c) cereals containing gluten that have been malted, or products of such cereals.	Compliance is based only on detectable gluten, as the presence of oats, oat products or cereals containing gluten that have been malted, or products of such cereals were not assessed by Agrifood.
Lactose free (4)	The food contains no detectable lactose.	Samples tested for dairy milk allergens (lactose) were assumed to claim to be lactose free.
Good source of dietary fibre (4)	A serving of the food contains at least 4 g of dietary fibre.	Samples tested for fibre were assumed to claimed to be 'a good source of dietary fibre', and that the sample size was equivalent to a serving.
Peanut free (6)	A food containing peanuts must declare this.	Compliance in this CSP assumes no detectable level of peanut.

Almond free (6)	A food containing almonds must declare this.	Compliance in this CSP assumes no detectable level of almond.
Egg free (6)	A food containing egg must declare this.	Compliance in this CSP assumes no detectable level of egg.
100% sugar free (4)	The food contains no sugar.	Unless otherwise specified (see below), foods tested for sugar were assumed to claim to be '100% sugar free'.
Low sugar (4)	The food contains no more sugars than: (a) 2.5 g/100 mL for liquid food; or (b) 5 g/100 g for solid food.	One sample included in this CSP made a 'low sugar' nutritional claim – this was assessed against a separate standard. It was assumed that the sugar value of the sample reflected the content per 100g.

4.0 Results

In total, 130 samples were submitted for testing by local governments.

Figure 2 - Overall nutritional claim compliance

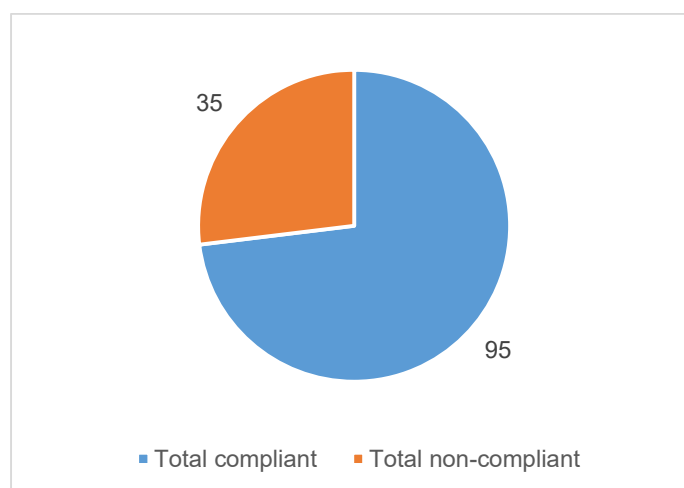


Figure 2 illustrates that of the 130 samples tested, 95 were compliant with the sample's nutritional claims and 35 were non-compliant. This resulted in 73% or 3 in 4 samples compliant with their nutritional claims.

Table 2 - Nutritional claim compliance

Fibre	Egg	Peanut	Gluten	Lactose	Sugar	Almond	Total
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Number of tests	3	2	1	115	26	5	2	154
Compliant tests	3	2	1	99	11	0	0	116
Non-compliant tests	0	0	0	16	15	5	2	38
Percentage compliant	100%	100%	100%	85%	42%	0%	0%	73%

Figure 3 - Nutritional claim compliance by percentage

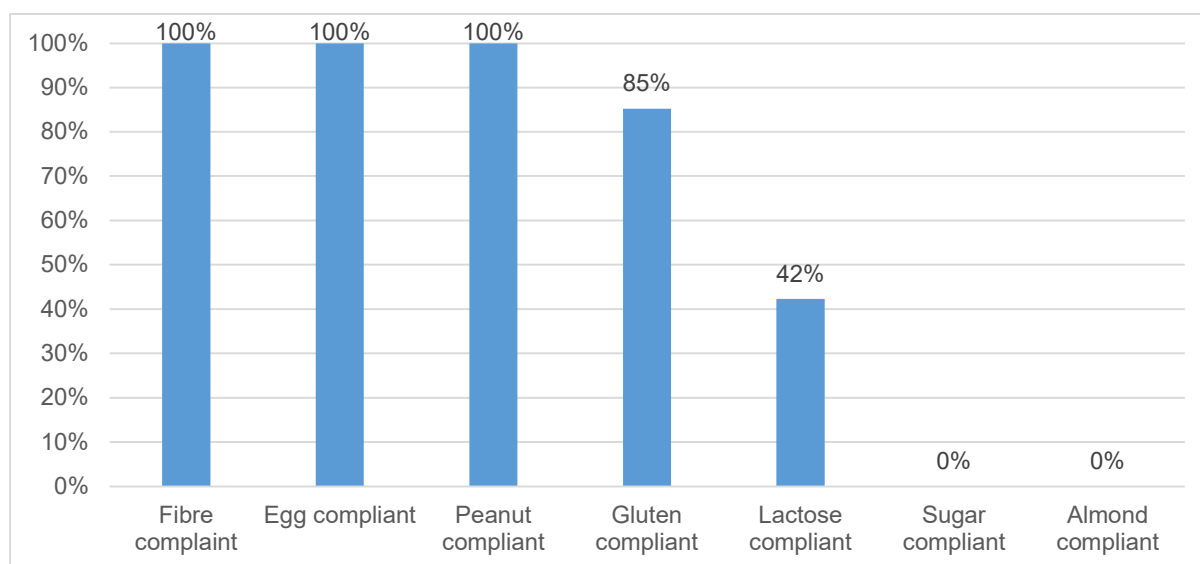


Table 2 shows that gluten (n=115) and lactose (n=26) were the most tested nutritional claims. Figure 3 shows that notably, less than half of samples tested for lactose were lactose compliant (42%). Samples tested for gluten compliance more reliably met their nutritional claims (85%). Samples tested for sugar, fibre, almond, egg and peanut were tested in smaller numbers. Samples tested for fibre, egg and peanut compliance were completely compliant with their nutritional claims, whereas none of the sugar and almond tested samples were compliant with their nutritional claims.

Note that some samples were tested for multiple nutritional claims, hence the number of tests performed (n=154) is greater than the number of samples tested (n=130). The majority of samples were non-compliant with only one claim (n=32), with a few being non-compliant with two claims (n=3).

Some samples (n=14) did not specify a claim in their item name. In these cases, an assumption about their nutritional claims were made from the tests conducted (i.e. if a gluten test was conducted, it was assumed that the sample claimed to be gluten free).

Figure 4- Nutritional claim compliance by local council

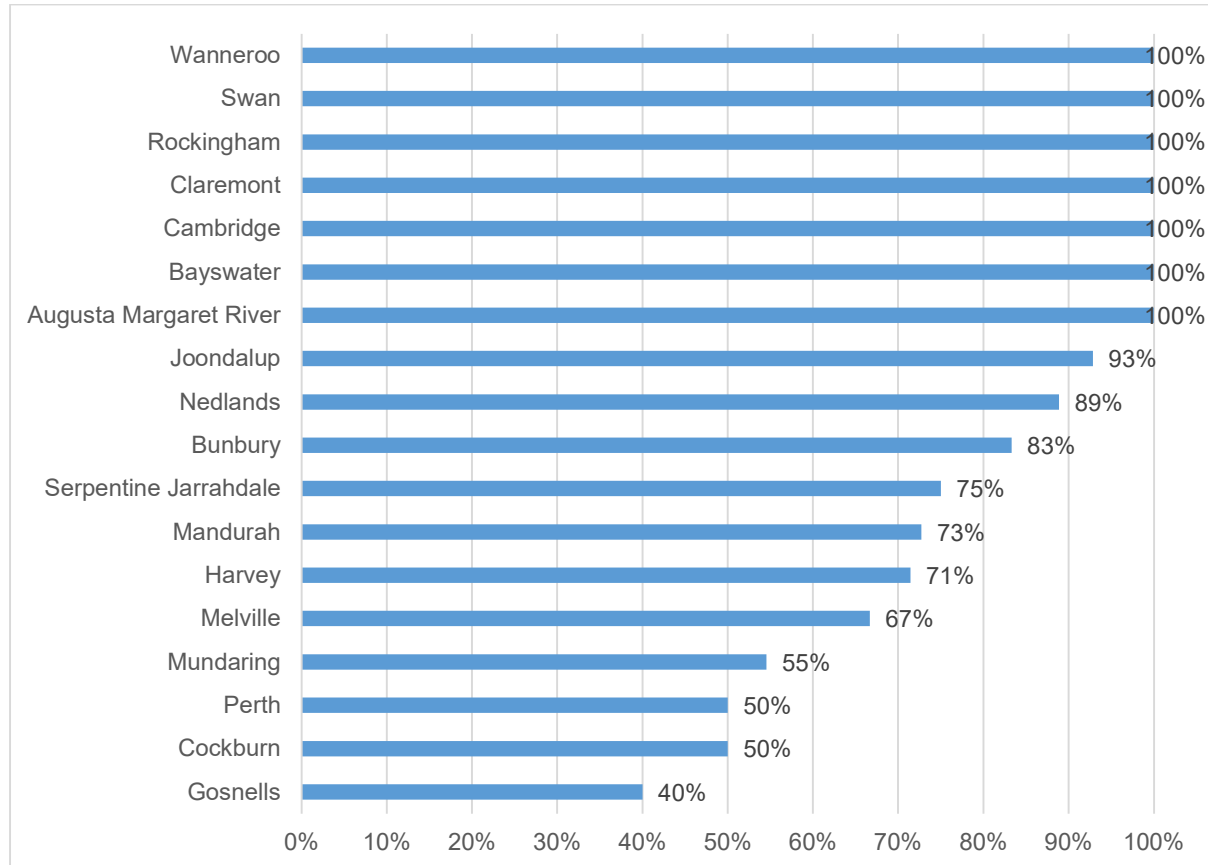


Figure 4 shows the percentage of samples that were compliant with their claims. Several LGAs' tested samples were completely compliant, however the majority of LGAs had at least one sample that was not compliant, as shown in table 3 below.

Table 3 - Nutritional claim compliance by local council

Council	Total samples tested	Compliant samples	Gluten non-compliant	Lactose non-compliant	Sugar non-compliant	Almond non-compliant
Augusta Margaret River	3	3				
Bayswater	4	4				
Bunbury	6	5		1		
Cambridge	4	4				
Claremont	4	4				
Cockburn*	6	3	3	1		
Gosnells	5	2	2	1		
Harvey	7	5	1		1	
Joondalup	14	13	1			
Mandurah	11	8	2	1		
Melville	6	4	1	1		
Mundaring	11	6	1	4		
Nedlands	9	8	1			
Perth*	26	13	4	6	4	1
Rockingham	4	4				
Serpentine Jarrahdale	4	3				1
Swan	3	3				
Wanneroo	3	3				
Total	130	95				

*includes samples that were non-compliant with more than one nutritional claim.

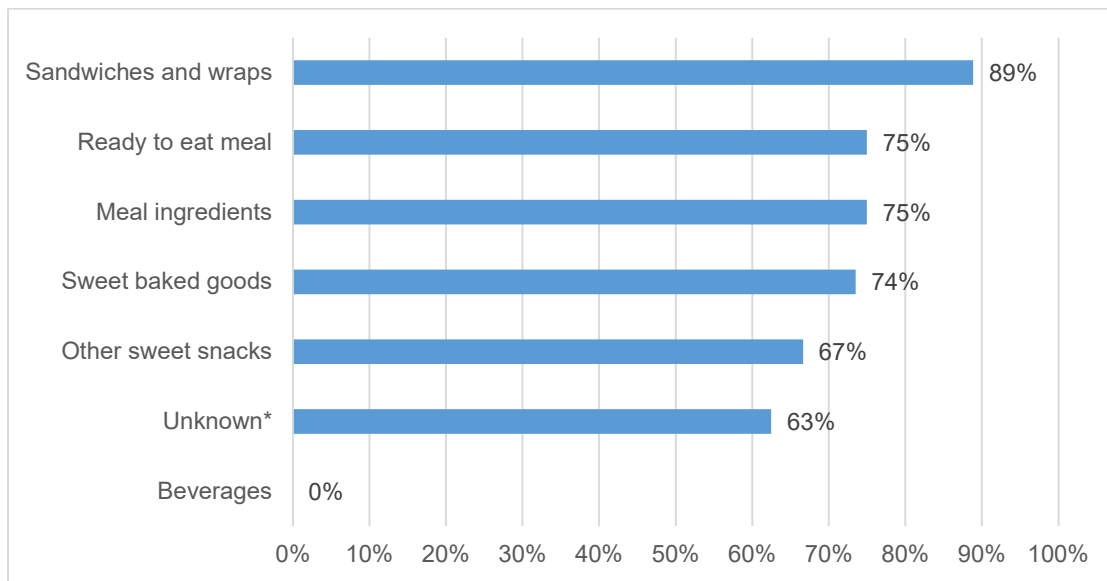
Table 4 - Nutritional claim compliance by food category

Food category	Total items	Compliant tests
Sweet baked goods	68	50
Ready to eat meal	36	27
Sandwiches and wraps	9	8
Unknown*	8	5
Meal ingredients	4	3
Other sweet snacks	3	2
Beverages	2	0

*Some samples had an unclear item name/description and they were not able to be sorted into a more specific food category.

Most of the samples tested were sweet baked goods (52%), followed by ready to eat meals (28%). The food categories beverages, other sweet snacks, meal ingredients and sandwiches and wraps made up 13% of samples tested, with an additional 6% of samples having an unknown food category.

Figure 5 - Nutritional claim compliance by food category



As noted in figure 5, sandwiches and wraps were the most compliant with their claims (89%). The least compliant food category was beverages – none of these were compliant with their claims (noting however that only two beverages were tested).

5.0 Discussion

The Australian consumer has the right to have access to food that is accurately labelled. Inaccurate labelling poses a risk to the health of consumers who suffer from food allergies and/or food intolerance. The major findings from this survey are explored further below:

Some food claims (fibre, egg, peanut) performed better than others (almond, lactose, gluten, sugar).

Concerningly, none of the products tested for almond free nutritional claims were compliant, and only 42% of products tested for lactose were compliant with a lactose free claim. Gluten performed better than lactose with 85% of tests compliant with a gluten free claim. Products tested for gluten formed the bulk of this survey (75%) and included 115 samples in total, which adds credibility to this result in particular. The high number of gluten tests in this survey may have overshadowed other potential allergen testing – however demand for gluten free products is well documented (10) and testing gluten is topical and relevant for consumers. None of the products tested for a sugar free claim were compliant; however this is less of a concern than the almond, lactose and gluten compliance results as sugar is not an allergen.

The 100% compliance of the fibre, egg and peanut tests was encouraging, however these tests combined represent a small segment of total tests (4%) – this result should be interpreted with caution.

Broader statistics on allergy compliance in food businesses are scarce, however there is data available on undeclared food allergens and food product recalls. In Australia between 2013 – 2022 there were 346 due to undeclared allergens, with the three most common undeclared allergens listed as milk (30% of total), multiple (18% of total) and peanut (15% of total), with the remainder of the recalls caused by other common food allergens (37% of total) (11). This survey echoed the wider data on widespread non-compliance with milk/lactose claims and labelling, though the context for this broader data is different from the survey and care should be taken in linking this data.

Some food item categories performed better on compliance than others.

Sandwiches and wraps performed the best (89%) of all the food item categories captured in this survey, followed by meal ingredients (75%), ready to eat meals (75%) and sweet baked goods (74%) – with the average compliance across all food categories being 73%.

Other sweet snacks and foods with an unknown food category ranked below average at 67% and 63% respectively. No beverages surveyed were compliant, however the small sample size (n=2) compromises any generalisability.

The large number of gluten tests likely influenced the composition of sampling in this survey. Sweet baked goods and sandwiches and wraps combined comprised almost half (49%) of the total tests conducted, both of which are common gluten free food categories. The greater number of tests in these categories increases the reliability of the results in particular.

The low sampling of meal ingredients (n=4), other sweet snacks (n=3) and beverage (n=2) means these results should be interpreted with caution – especially as these categories were more likely to have low compliance with their nutritional claims.

5.1 Limitations

As noted above, the survey skews towards testing gluten and lactose claims – 75% were gluten tests, and 17% were lactose tests, totalling 92% of total tests. While the large number of tests in these categories increases the reliability of these results, it means that other nutrients and allergens that were tested have smaller sample sizes and are less reliable. Of note, most declarable allergen claims were not assessed at all in this survey (a complete list of declarable allergens [can be found on the Allergen Labelling page of the FSANZ website](#)) – this may be due to these allergen claims being less common in the context of food businesses. It is recommended for future replications of this study that nutritional claims are either investigated individually or that minimum and maximum sample quantities are targeted by LGAs.

Some samples (n=14) did not specify a nutritional claim in their item name. In these cases, an assumption about their nutritional claims was made from the tests conducted (i.e. if a gluten test was conducted, it was assumed that the sample claimed to be 'gluten free'). For other samples, a nutritional claim could be inferred from the item name, but in future clearer labelling of data would assist in analysis.

Some samples (n=8) included in the survey had an unclear item name in the resulting data – these were assigned into the 'unknown' food category as they were unable to be sorted. More accurate data labelling in future may improve the categorisation of foods and result in better sample sizes for existing categories. Additionally, some samples did not have their specific food claims recorded in the resulting data. In this case, the type of claim was inferred from the test conducted (e.g. gluten test = 'gluten free' claim), however it is possible that the product claimed something else, and this would change the results if recorded (e.g. 'low gluten' claim).

While FSANZ enforces standards around the claims listed in the report, claims like 'dairy free' (as opposed to 'lactose free'), 'keto', 'paleo', 'raw' and 'vegan' have no recommended or mandated standard so are difficult to test against. These type of nutritional claims were not assessed as part of this survey.

While not relevant to this survey due to the samples selected and claims tested, some claims require information about the sample volume or weight to assess compliance (e.g. products with 'low', 'light' or 'reduced' claims (5)). This information should be recorded in future surveys to assure that the correct analysis can be conducted.

6.0 Conclusion

Inaccuracies in food product nutritional claims were identified in 27% of the food products sampled as part of this survey.

Concerningly, none of the products tested for almond free or sugar free nutritional claims were compliant, and only 42% of products tested for lactose were compliant with a lactose free claim. Gluten performed better than lactose with 85% of tests compliant with a gluten free claim. The 100% compliance of the fibre, egg and peanut tests was encouraging.

92% of the tests were either a gluten or dairy test, and the much smaller number of other tests affects the generalisability of these results in particular.

7.0 References

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