

Accuracy of Nutrition Information Panels 2000-2002

The accurate labeling of Nutrition Information Panels (NIPs) and their contents are important to assist consumers in making an informed decision about the quality of the food they are buying. Currently Australian national and state health departments are focusing on improving nutrition as an effective intervention to overcome the health burden posed by chronic health conditions such as Obesity, Type I & II Diabetes, coronary and circulatory ailments, Coeliac disease, and of certain Cancers. People at possible risk or with these chronic conditions are encouraged through health campaigns and promotions to adopt a holistic lifestyle change and to better manage their diet to assist in controlling their condition.

The accuracy of NIPs is of great interest to consumer groups and health authorities. Consumers rely on the accuracy of this information to make informed product choices about the foods they buy. A misrepresentation of label declarations can in some instances result in a negative public health effect or public health risk, and undermine the ability of consumers to be able to choose foods with confidence. For example a product containing less folate than claimed may mislead a pregnant women to believe that she has consumed the daily Recommended Dietary Intake (RDI) in order to prevent Neural Tube Defect in her unborn child, whereas in reality she is lacking.

Surveys Conducted

There have been previous small pilot surveys conducted by the City of Perth and City of Melville; the results demonstrated a wide variation between values declared in NIPs and the quantities found in the packaged products. The West Australian Food Monitoring Program (WAFMP) Steering Group initiated a statewide survey to examine the NIPs on food packaging making health or



content claims and those foods that carried a NIP (previously not required by the Food Standards Code, Volume 1) but did so for consumer information purposes.

During the years 2000 through 2002, One hundred and forty two food products were selected from the following commodity groups:

- Biscuits
- Breakfast foods
- Cake mixes
- Frozen foods (pies, pasties, sausage rolls, fish fingers)
- Muffins
- Microwaveable dinners
- Soup mixes

The survey focused on products that make:

1. A claim on fat content
2. Claims on other than fat content
3. Products that make no claims but still bear a NIP.

Survey Results (2000-2002)

The hundred and forty two samples were listed into three different categories, including products with a fat content claim, a claim on other than fat content and products that make no claims but still bear a NIP.

Of all of the **samples with a fat content claim**, only 16% were within 10% of the stated fat amounts; an additional 25% were within 25% variance, leaving the remaining 59% well above the stated fat content. There were also high levels of non-compliance for Carbohydrates declared as sugars; 46% were greater than 25% variance from the declared amount.

The most accurate NIP levels in **samples with claims other than fat category** were protein, energy, potassium and total carbohydrates. The most inaccurate nutrients were folate, fats and sodium. Seven out of nine products had folate levels in excess of 25% variance from the declared level. Excess folate does not represent a public health risk. However, the intent of Standard 1.2.8 is to have accurate declarations of nutritional content for consumer choice.

Both declared fats and sodium amounts had a higher percentage of inaccuracy with 47% (fat) and 42% (sodium) in excess of declared values. Figure 1 shows the classification of fat levels was within the samples with claims other than fat. One significant observation is that the majority (seven out of nine samples) containing excess fat levels were within 25% variance of the declared value. However, the remaining two samples contained fat at levels well in excess of 25% variance. Inaccurate fat declaration can cause difficulty for consumers who wish to choose a healthier alternative.

Figure 1. Products with claims other than Fat – Distribution of Excess Fat Levels

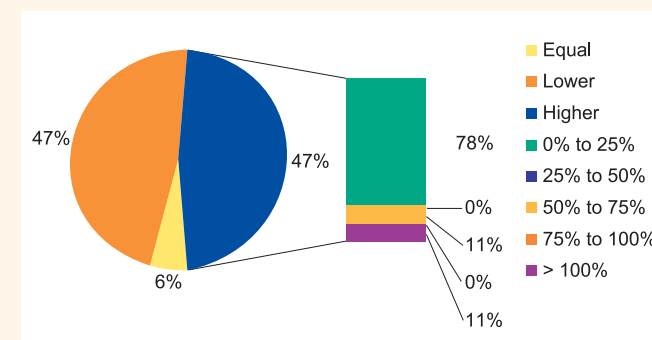
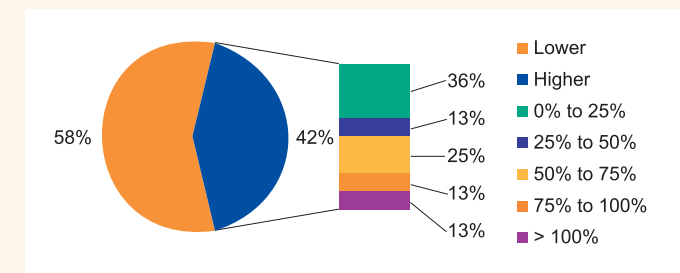


Figure 2 illustrates the breakdown of sodium levels in samples with claims other than fat. Of the reported samples with excess sodium levels, only three out of eight were within 25% variance of the declared values. The remaining five samples (64%) reported excess sodium levels greater than 25% variance of the declared value. These discrepancies could inadvertently affect the consumer's choice and health.

Figure 2. Products with claims other than Fat – Distribution of Excess Sodium Levels



The remaining samples included products **with no claims but were labeled with a NIP**. It is important to note that the survey commenced prior to the enforcement of Volume 2 of Standard 1.2.8 of the Food Standards Code, thus it was not mandatory for NIPs on these products. However, the labeling was most probably in preparation for the enforcement of Volume 2.

The most accurate levels declared were energy and total carbohydrates. The most inaccurate values included fat, sodium and total sugars. Fat and sodium levels within 25% variance of declared values were 63.4% and 53.6% respectively. Whereas for total sugar, more than 50% of samples contained values higher than 75% variance from the declared amount.

The survey results have demonstrated that the overall majority of nutrients (67%) are within 25% of label declarations. However, in some instances there was a poor level of compliance with some significant discrepancies between declarations on NIPs and actual amounts of nutrients and characteristics, particularly with respect to fat and sodium levels.

Current Legislation

Volume 2 of the Australia New Zealand Food Standards Code requires that most products have a Nutrition Information Panel in accordance with Standard 1.2.8.

The few exemptions that exist mostly apply to;

- food in small packages,
- food packaged in the presence of the consumer and at their express order; and
- food sold for charitable purposes, and alcoholic beverages

Standard 1.2.8 does not stipulate the degree of accuracy required for NIPs. However the actual amount must be in relation to the declared amount. The standard also permits 'average values' to be declared, in order to allow for seasonal variation of certain ingredients, and to provide manufacturers with flexibility in calculating NIP values.

NIPs can be calculated from a number of methods and these include: Laboratory analysis, the Nutrition Panel Calculator on the FSANZ website, food composition tables or databases and other software.

Products that have nutritional claims must adhere to certain criteria. These are stated in the standard and include claims on:

Vitamin and Mineral Content

A 'source' claim; the product must contain at least 10% of the daily Recommended Dietary Intake (RDI) per serve for the vitamin or mineral.

A 'good source' claim; the product must contain no less than 25% of the RDI per serve for the vitamin or mineral.

Salt, Sodium and Potassium

A 'low in sodium' claim; the product must contain less than 120 mg of sodium per 100g of the food.

Fatty acid or Dietary Cholesterol

A 'polyunsaturated' or 'monounsaturated' fatty acid claim; the total of saturated fatty acids and trans fatty acids comprises no more than 28% of the total fatty acid content of the food; and,

The fatty acid in respect of which the nutrition claim is made comprises no less than 40% of the total fatty acid content of the food.

Energy

A 'low joule' claim; the product can have no more than 80 kJ per 100ml in beverages, or 170 kJ in foods.

Lactose

A 'low in lactose' claim; the products must contain no more than 0.3g of lactose per 100g of the food.

Gluten

A 'low in gluten' claim; the product cannot contain more than 20mg of gluten per 100g of the food and contain no oats or malts.

A 'high in gluten' claim; the product contains more than 20mg of gluten per 100g of the food.

How to maintain NIP accuracy

Consumers rely on the accuracy of NIP information to make informed choices about the products they buy. Without a reasonable level of confidence regarding the figures in a NIP, the value of a label is significantly diminished.

Local governments can help maintain NIP accuracy by co-regulating the food industries within their area of authority and providing guidance while combating the issue of consumer deception. Manufacturers' NIPs can be verified by regular monitoring and review of NIP information by an analyst independent of the company, to ensure adherence to the Food Standards Code.

Average energy
(kJ/100 g) = $\sum W_j F_j$

 W_j means the average weight of the food component (g/100 g food)
 F_j means the energy factor assigned to that food component (kJ/g)

The total of fatty acids containing no double bonds acids and declared as saturated fat.

The total of unsaturated fatty acids where one or more of the double bonds are in the trans configuration acids and declared as trans fat.

The total of polyunsaturated fatty acids with cismethylene interrupted double bonds acids and declared as polyunsaturated fat.

The total of cis-monounsaturated fatty acids and declared as monounsaturated fat.

Carbohydrate means – 'carbohydrate by difference', calculated by subtracting from 100, the average quantity expressed as a percentage of water, protein, fat, dietary fibre, ash, alcohol, and if quantified or added to the food, any other unavailable carbohydrate and the substances listed in column 1 of Table 2 to subclause 2(2); or
 (b)'available carbohydrate', calculated by summing the average quantity of total available sugars and starch, and if quantified or added to the food, any available oligosaccharides, glycogen and maltodextrins.

The main protein in wheat, rye, oats, barley, triticale and spelt relevant to the medical conditions, Coeliac disease and dermatitis herpetiformis.



NUTRITION INFORMATION		
Servings per package: (insert number of servings)		
Serving size: g (or mL or other units as appropriate)		
	Quantity per Serving	Quantity per 100g (or 100mL)
Energy	kJ (Cal)	kJ (Cal)
Protein, total	g	g
- *	g	g
Fat, total'	g	g
- saturated	g	g
- **	g	g
- trans	g	g
- **	g	g
- polyunsaturated	g	g
- **	g	g
- monounsaturated	g	g
- **	g	g
Cholesterol	mg	mg
Carbohydrate	g	g
- sugars	g	g
- **	g	g
- *	g	g
- **	g	g
Dietary fibre, total	g	g
- **	g	g
Sodium	mg (mmol)	mg (mmol)
Gluten	mg (mmol)	mg (mmol)

Means monosaccharides and disaccharides

* a sub-group nutrient ** a sub-sub-group nutrient

The fraction of the edible part of plants or their extracts, or synthetic analogues that -
 (a) are resistant to the digestion and absorption in the small intestine, usually with complete or partial fermentation in the large intestine; and
 (b) promote one or more of the following beneficial physiological effects: laxation, reduction in blood cholesterol and/or modulation of blood glucose and includes polysaccharides, oligosaccharides (degree of polymerisation > 2) and lignins.

Who was involved in this survey?

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