

POSITION STATEMENT

Front-of-Pack Food Labelling



Key Messages

- The provision of nutrition information at the point of sale can potentially assist consumers to identify healthier food choices.¹
- Currently, food labels do not present nutrition information in a way that is easily understood or that encourages consumers to make healthy choices. Government intervention is required to ensure that an interpretive labelling system is applied across all food products that can be understood by all consumers.
- Based on findings from previous research and in line with the recommendations of the National Preventative Health Taskforce, Cancer Council recommends that front-of-pack food labelling be introduced into the Australian grocery market. This labelling can support consumers to select healthier food products and encourage the production of healthier food products. To assist consumers in their interpretation of this labelling, one consistent labelling format which uses Traffic Light symbols and a coloured schema should be used.

Background

The Australia New Zealand Food Standards Code (the Code) currently mandates the inclusion of a nutrition information panel (NIP) on all packaged foods, with some exceptions such as very small packages and foods that are packaged for immediate consumption. The nutrition information panel outlines the amount of key nutrients per 100g or 100mL of a product and per serve of a product. It is mandatory for nutrition information panels to carry information about energy, protein, total fat and saturated fat, carbohydrates and sugars, and sodium. Manufacturers may also list dietary fibre, other fats, and other vitamins and minerals.

This NIP is typically placed on the side or the back of food packages, and is not immediately visible to consumers. Further, research investigating comprehension of NIPs indicates that some consumers can find them confusing and difficult to interpret. NIPs were made mandatory on food labels to improve the level of information available to consumers and assist them to make informed choices about the foods they buy. However, food labels also have the potential to actively encourage consumers to make healthy choices by presenting nutrition information in a format that is easy to interpret at a glance. An easier to understand method of labelling foods, for use in conjunction with the NIP, is therefore sought, with moves overseas to develop systems for conveying nutrition information in a more meaningful way on the front of food packages.

In the UK, and elsewhere in Europe and the US, the voluntary introduction of front-of-pack (FoP) labelling has led to the development of many different labelling systems by food manufacturers and retailers. The most common labelling systems that have been introduced comprise variations of three main labelling schemes, including:

- Colour-coded (traffic light) systems; where the amounts of total fat, saturated fat, sugar and salt/sodium are ranked as either high, medium or low (according to nutrient cut-off points) and assigned a colour-code of red, amber or green accordingly;

- Percentage Daily Intake (%DI)/Guideline Daily Amount (%GDA) systems; which display the percentages of the major nutrients that a food provides, based on recommended daily requirements for these nutrients; and
- Better for you schemes such as Swedish keyhole (government), Heart Foundation Tick (non-government organisation), Eat Smart (industry) and Smart Choices (non-government organisation, government and industry coalition).

In 2006, Percentage Daily Intake (%DI) FoP labelling was introduced by the Australian Food and Grocery Council into the Australian market as a voluntary labelling scheme, modeled on the %GDA labelling. This system is based on the recommended dietary intakes of a reference adult (70 kg male) with an energy requirement of 8,700 kJ per day, as per the Code. The %DI system has been adopted by more than 15 major Australian food manufacturers (as at December 2007) and has the support of the major grocery retailers, with one supermarket chain (Aldi) using %DI labelling across its product range.

The FSANZ Food Standards Code (standard 1.2.8 clause 7) sets out requirements for the voluntary inclusion of %DI information in nutrition information panels. There are also other FoP schemes currently on pack in Australia developed by health organisations and the food industry such as Go Grains (4+ serves a day), Heart Foundation (Tick), and the GI symbol. While these endorsement symbols may provide some guidance to consumers about healthier food products within a product category, they have been criticised as being overly simplistic, while licensing fees may preclude some companies from applying. Further, as endorsement schemes are “all or nothing” systems, whereby a product either carries an affirmative label or not, there is no opposing symbol on less healthy products to inform consumers of their less desirable nutrient profile.

In October 2006, the Australia New Zealand Food Regulation Ministerial Council (Ministerial Council) asked the Food Regulation Standing Committee (FRSC) to explore and report back on whether a uniform FoP food labelling system would be an effective health strategy, and to advise on the efficacy of a range of options for such a labelling system. As a result the FRSC Front of Pack Labelling Working Group was established.

Since this time the Working Group has been involved in consultation with stakeholders and the assimilation of evidence on FoP schemes and consumer response behaviours. The Working Group reported the outcomes of this consultation process at the Ministerial Council meeting in May 2009. The consultation confirmed that there are currently divergent views in relation to FoP labelling in Australia and New Zealand. Currently, a comprehensive review of food labelling regulations has been announced by government, with findings expected to be released in mid 2010. Outcomes of the FoP labelling consultation are not expected until this time.

In February 2009, the Australian Chronic Disease Prevention Alliance held a forum with public health and consumer organisations and individuals across Australia, to develop a consensus position on FoP labelling. This consensus document helped to inform this position statement.²

In 2009, the National Preventative Health Taskforce recommended that food labelling on front of packs be introduced to support healthier food choices, with easy to understand information on energy, sugar, fats, saturated fats, salt and trans fats, and a standard serve/portion size within three years.³

Rationale

Cancer Council has a strong interest in food labelling as a strategy to promote healthy food choices and enhance the nutritional quality of the food supply, as excess body weight and poor nutrition are important modifiable risk factors for cancer. Obesity is a risk factor for cancers of the oesophagus, pancreas, bowel, endometrium, kidney and breast (postmenopausal women only).⁴

The nutritional status of Australians is typified by an increasing intake of unhealthy, non-core food and beverages, and this unhealthy dietary pattern is seen more prominently in the most socially disadvantaged groups.

Data from national dietary surveys of both children and adults indicate that fruit and vegetable intake is well below recommended levels; with 80-90% of adults eating less than the recommended five serves of vegetables per day, and around 50% of adults eating one serve or less of fruit per day, compared to the recommended two serves.^{5,6} Further, only 1-2% of older children are meeting the recommended three serves of fruit (not including juice), and only about one-quarter of younger children and 1–11% of older children meet the guideline for vegetable intake.⁷ Socioeconomically disadvantaged and Indigenous women are also more likely to have very low fruit intakes (less than one serve per day), as are both men and women in very remote areas.⁶

The high, and increasing, prevalence of overweight and obesity in Australia has also been documented. The 2007-08 National Health Survey, which measured the height, weight, hip and waist circumference of respondents aged 5 years or more, identified 68% of adult men and 55% of adult women were overweight or obese.⁵ Importantly the distribution of overweight and obesity is not shared equally amongst all population groups, with people in the most disadvantaged socioeconomic groups having higher levels of obesity than those in the most advantaged group.⁸ The 2007 Children's Nutrition and Physical Activity Survey, indicated that 23% of Australian children aged 2 to 16 years are overweight or obese (17% overweight and 6% obese).⁷

Population-wide strategies are required to address these nutrition-related diseases, with particular emphasis given to the equity of these approaches for the most disadvantaged population groups, who bear a disproportionate burden of diet related chronic disease in Australia.

The provision of nutrition information at the point of sale potentially provides a direct vehicle for assisting consumers to identify healthier food choices¹ and in so doing may improve health outcomes. FoP labelling has the dual potential for both educating consumers to identify healthier food products, as well as encouraging food product reformulation and innovation.

It is, however, important to recognise that FoP alone will not address obesity and chronic disease. It is one strategy among many that can assist Australians to consume a healthy diet.

Previous Research on Front-of-Pack Labelling

A considerable body of evidence now exists both internationally and in Australia on FoP food labelling.

i. Evidence from reviews

Europe

A literature review was conducted to determine how consumers perceive, understand and use nutrition information on food products.⁹ Included studies were those published in the European Union from 2003 to 2006 (n = 58 studies). Consumers supported the concept of FoP food labelling, however differed in their preference for different labelling formats. These differences related to conflicting consumers' preferences for ease of use, being fully informed and not being too dogmatic. While the majority of consumers understand the most common FoP labelling formats, and can relay nutrition information presented in experimental conditions, available research does not indicate how labelling systems would be used in real-world settings or how these would impact on consumers' dietary patterns.⁹

This paper updates information from a previous literature review of European studies conducted prior to 2003, which concluded that food labelling could make an important contribution towards healthier choices at the point of sale.¹

ii. Evidence from experimental research

Australia

Cancer Council, in collaboration with public health and consumer organisations, conducted intercept surveys ($n = 790$) at shopping centres to assess consumers' preferences for, and ability to use different FoP systems.¹⁰ Participants were exposed to mock food packages displaying one of four different front-of-pack labelling systems, including two variations of the %DI (Monochrome %DI and Colour-Coded %DI), and two variations of the Traffic Light system (Traffic Light and Traffic Light + Overall Rating).

Consumers indicated strong consumer support for nutrition information to be included on the front of food packages, particularly saturated fat, sugar, total fat and sodium, and for a single, consistent front-of-pack food labelling system across all food packages.

While consumers thought the Colour-Coded %DI food labelling system would be easiest to use, their actual ability to use the nutrition information for either variant of the %DI system was significantly poorer than for the Traffic Light system. Consumers using the Traffic Light system were five times more likely to correctly identify healthier food products compared to consumers using the Monochrome %DI system, and three times more likely to correctly identify the healthier products compared to consumers using the Colour-Coded %DI system. Further, use of the %DI system was associated with socio-economic status, with those in the most disadvantaged groups less likely to be able to use this system.

The National Heart Foundation have conducted an online survey to determine consumers ($n = 600$) attitudes towards, and use of different FoP labelling schemes, including %DI, Traffic Light labelling and the Heart Foundation Tick.¹¹ Respondents were asked to select the healthier of two products in each of 10 different food categories, as based on existing food products, using different FoP labels. All FoP systems were equally effective in assisting consumers to identify healthier food products. No one scheme worked equally well for all types of foods. As well, the different labelling systems were equally effective across all socio-economic groups.

Qualitative research by Food Standards Australia New Zealand (FSANZ) used in-depth interviews with consumers ($n = 51$) to investigate their perceptions and potential use of %DI labelling in making food purchase decisions and judgements about nutrition content claims on food packages.¹² Consumers had difficulty comprehending %DI labelling upon initial exposure, and required assistance and practice to use the information. The inclusion of %DI information for energy further hindered consumer's ability to interpret the information. While consumers had difficulty understanding %DI labelling, this research demonstrated the positive effects that education may have on understanding.

The Australian Food and Grocery Council has also conducted research to determine consumer awareness of, and perceptions about %DI labelling.¹³ Two online consumer surveys were conducted: in 2007 ($n = 1222$) and 2008 ($n = 1208$). The majority of consumers were aware of %DI labelling and believed that it was easy to understand. It is important to note that this industry research did not objectively assess consumers' ability to use this labelling, or compare it to other FoP systems.

More work is currently being done in Australia, with researchers at Deakin University undertaking an analysis of supermarket sales data in the UK to determine the change in food purchasing behaviour following the introduction of Traffic Light labelling (unpublished). The Australian Government Department of Health and Ageing has also conducted a literature review of all available nutrient criteria schemes, as part of the National Healthy School Canteens Project (unpublished).

New Zealand

Researchers from the University of Auckland have conducted consumer testing with grocery buyers ($n = 1525$) to determine use, understanding and preferences related to different nutrition labels, including the Traffic Light system, %DI and NIPs.¹⁴ The Traffic Light system was consumers' preferred system and also performed the best in assisting consumers to identify healthier food choices. Consumers' ability to interpret

%DI was associated with ethnicity, with a poorer understanding of this system amongst Asian and Maori people.¹⁴

Also, researchers from Massey University tested consumer's evaluation of the nutritional quality of breakfast cereals, using either Traffic Light labelling, %DI labelling or NIPs (control).¹⁵ While both Traffic Light labelling and %DI labelling enhanced consumers' ability to evaluate the products more accurately compared to the control, Traffic Light labelling performed significantly better.

United Kingdom

The UK Food Standards Agency have conducted extensive consumer research on FoP food labelling since 2004: identifying consumers' preferences for different FoP labelling formats; performance testing to determine consumers' ability to use different FoP labelling systems; and determining how FoP labels are used by consumers in the supermarket environment.

The most recent and comprehensive research from this organisation, released in May 2009, used a combination of qualitative (shopping bag audits, $n = 112$; and omnibus survey, $n = 4534$), observational (in supermarkets, $n = 113$) and qualitative methods (in-depth interviews, $n = 50$) to: determine the effectiveness of different labelling systems in allowing consumers to identify products' nutrient levels; assess consumers' use of FoP labels in the retail environment; and determine the effect of the co-existence of multiple labelling formats on consumers' interpretation.¹⁶

Major findings of this research were that:

- Labels using the words “high”, “medium” and “low” as well as traffic light colours achieved the highest level of comprehension with consumers (71%). However, labels that combined these nutrient indicators (words and colours) together with %GDA performed equally well (70%), and were also one of the most preferred label formats.
- Some shoppers use energy to determine the nutritional value of products, although the inclusion of energy has no effect on comprehension.
- Consumers who use FoP labels value them, although other factors also influence purchasing decisions.
- Consumers are most likely to use FoP labels when they are buying a product for the first time, when comparing between products, when shopping for children and when trying to reduce their intake of certain nutrients or their weight.
- The coexistence of multiple labelling formats introduces considerable difficulty in comprehension for consumers.

Earlier research, using qualitative focus group research, showed strong consumer support for the introduction of a single consistent FoP food labelling system on packaged food, to be developed by an independent organisation.^{17,18} Using quantitative consumer performance testing ($n = 2,600$) the majority of consumers preferred FoP labelling formats with colour coding together with high, medium, and low indicators or information on nutrient levels to assist in the interpretation of colours.¹⁹ Colour-coding was perceived to assist consumers in making food purchasing decisions at-a-glance. Some consumers were unable to use the numerical information provided on %GDA labelling correctly and were confused by the use of percentages. Consumers supported the inclusion of fat, saturated fat, sugars and salt on FoP labels and perceived the strongest need for FoP labelling on processed foods.

The UK consumer group Which? have also conducted consumer testing ($n = 636$) to determine consumers' ability to correctly use and interpret different FoP labelling systems.²⁰ Labelling attributes including their ease and speed of use, and the level of information provided were assessed, together with consumers' ability to correctly identify healthy food products. The Traffic Light system was rated better than the other systems for the majority of these performance indicators. Based on this research, the introduction of FoP labelling using colour coding with high, medium and low indicators and an initial focus on fat, saturated fat, sugar and salt was recommended.

United States

The US Food and Drug Administration (FDA) conducted focus groups with adult grocery buyers (8 groups x $n = 7-10$ participants) to determine how consumers use nutrition information on food packages.²¹ From this qualitative research, consumers reported difficulty interpreting Percent Daily Value (comparable to %DI), when integrated into NIPs, as they did not necessarily consume a 2000 calorie diet, on which this indicator is based.

Recommendations

The large majority of research on FoP food labelling indicates that Traffic Light labelling is the most comprehensible labelling system for consumers. Initial research from the UK also indicates that this system may influence food purchasing decisions. As a result of this evidence, Cancer Council recommends that Traffic Light FoP labelling be introduced into the Australian grocery market.

Key principles

The following key principles should be considered upon the introduction of FoP labelling. Ideally FoP labelling should:

- **Support consumers in selecting healthier food products.** FoP food labelling should educate consumers and assist them to identify healthier food products.
- **Use traffic light colour coding.** Traffic Light symbols and coloured schema should be used to provide at-a-glance interpretation of nutrition information
- **Encourage healthier food product formulation.** FoP food labelling should aim to spur healthier product development by the food industry.
- **Supplement rather than replace Nutrition Information Panels (NIPs).** FoP labelling must complement, not replace, existing nutrition information currently on the back or sides of food packages.
- **Comprise one consistent system.** To avoid consumer confusion one consistent FoP labelling system should be introduced rather than a range of systems permitted.
- **Be based on 100 g/mL of foods.** Factual information about the levels of key nutrients should be based on 100g or 100mL of the food or beverage product, to avoid any manipulation of serving size information by food manufacturers.
- **Specify the absolute nutrient content of foods.** The absolute quantity (g/mL/mg/kJ) of each nutrient should be included on the FoP label. This will allow consumers to differentiate between products at a more discrete level.
- **Be introduced across all retail grocery food products.** FoP should be introduced initially across all packaged retail grocery food products that are eligible for NIPs, with intent to extend labelling to restaurant chains with standard menu items. Excluding the use of FoP labelling on fresh fruit and vegetable products is desirable, as these may be misinterpreted by consumers (e.g. sugar content of fruit) or guide consumers to consume particular varieties to the exclusion of others. The recommendation to consume a wide variety of fruit and vegetables according to recommended serves is preferred.
- **Be based on independent consumer research, comparing a range of different FoP systems.** This research must be transparent and stand up to peer review.
- **Be statutory in nature.** Only mandatory, legally enforced FoP food labelling regulations will ensure that the system is equitably applied across all food products, giving maximum benefit for consumers.
- **Be evaluated, monitored and enforced.** The regulations need to be evaluated to ensure the expected effects are achieved, independently monitored to ensure compliance, and fully enforced
- **Be accompanied by a public education campaign.** An extensive public education campaign must accompany the implementation of FoP food labelling to inform consumers how to interpret the labelling system in the context of other government healthy eating guidelines.

Future Research

In future, there is a need for more studies that investigate:

- The way in which consumers compare food products in the supermarket environment. That is, either between food categories (between different aisles) or within food categories (in the same aisle).
- Australian consumers' understanding of the energy value of food and, if necessary, potential approaches to educate consumers on the interpretation of energy and energy density.
- Alternative formats for the presentation of an overall product rating, as part of the Traffic Light labelling system, and the effect that these formats have on consumers' ability to interpret FoP labelling.

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