

September 2013

Technical Evaluation for Labelling Review Recommendation 43: Perceptible Information Principle

Executive summary

In 2009, the then Australian and New Zealand Ministerial Council for Food Regulation (now known as the COAG Legislative and Governance Forum on Food Regulation (Forum)) agreed to a comprehensive independent review of food labelling law and policy. An expert panel, chaired by Dr Neal Blewett, AC, undertook the review and the panel's final report, *Labelling Logic: Review of Food Labelling Law and Policy (2011)* (Labelling Logic) was publicly released in January 2011.

Recommendation 43, one of several recommendations relating to presentation of information on food labels in Labelling Logic states: *That the Perceptible Information Principle be used as a guide for labelling presentation to maximise label comprehension among a wide range of consumers.*

In the government response to Recommendation 43, the Forum asked FSANZ to *undertake a technical evaluation and provide advice on the application of the Perceptible Information Principle to the presentational aspects of food labels, as well as whether the Perceptible Information Principle as a tool to aid food label design has benefits over other tools.*

In response to the Forum's request for technical evaluation and advice, FSANZ has:

- commissioned a literature review on the impact of format/presentation on consumer use and understanding of label information and the application of the Perceptible Information Principle to presentational aspects of information on food labels
- considered the requirements in the *Australia New Zealand Food Standards Code* (the Code) and any guidance provided by industry and jurisdictions relating to the presentation of mandatory food label information
- compared requirements in Canada, the United States of America (USA) and the European Union (EU) relating to the presentation of mandatory food label information with those in the Code
- evaluated the suitability and effectiveness of requirements/guidance, the Perceptible Information Principle and any other tools for presentational aspects of mandatory information on food labels.

The Perceptible Information Principle¹ is one of seven principles of universal design developed in 1997 from the disability rights movement in the USA. To date, the principles have not been widely adopted by the design community and have not been explicitly applied to food labelling. In addition, only guidelines and not specific recommendations for optimising design are provided. Nonetheless, the Perceptible Information Principle can be applied to

¹ The Perceptible Information Principle: *The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.*

the format and presentation of mandatory information on food labels.

Two of the five guidelines associated with the Perceptible Information Principle refer to legibility and contrast. Legibility and contrast are covered in Standard 1.2.9 – Legibility Requirements of the Code in general terms and to a greater extent in the FSANZ user guide for Standard 1.2.9. Guidance on allergen labelling is also available from the Australian Food and Grocery Council.

The remaining three guidelines are not specifically covered in the Code but can be applied to food labelling. These guidelines include the use of more than one mode of providing information, such as pictorial and textual modes together, differentiation of information and the use of computer technology. However, the intent of the guidelines could be applied to the provision of mandatory label information, both via the label and by other means, through developing further guidance, if required.

No other tools similar to the Perceptible Information Principle have been identified. However, best practice advice/guidance is available which can assist with the presentation of information on food labels. Although the current evidence base is limited, there are a number of factors relating to the presentation of information on food labels identified in the literature that are considered to be helpful in attracting consumers' attention and also in aiding knowledge acquisition. Many of these factors are not encompassed by the Perceptible Information Principle, for example grouping and consistency of information, but have been included in guidance documents available for use in other countries. The effectiveness of such guidance documents in improving the format and presentation of mandatory label information is unknown.

Food regulations in Canada, the USA and the EU include detailed requirements relating to legibility and format of mandatory information on food labels in contrast with the general legibility criteria in the Code. Reasons for having general legibility criteria in the Code include the recognition that legibility can be optimised using a number of effective combinations of criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for food businesses.

In conclusion, the Perceptible Information Principle can be applied to the format and presentation of mandatory information on food labels but has not been explicitly applied to date. The Perceptible Information Principle is chiefly about principles of good design and does not provide any degree of detail or prescription that assists designers to meet the principles. Some aspects of the Perceptible Information Principle are covered in the Code and an associated user guide. No other tools similar to the Perceptible Information Principle have been identified, however, some best practice advice/guidance is available both locally and overseas. The best practice advice/guidance includes factors relating to the presentation of information on food labels identified in the literature review to be helpful for consumers. The effectiveness of the best practice advice/guidance is unknown.

Table of Contents

EXECUTIVE SUMMARY	I
1 INTRODUCTION.....	1
1.1 BACKGROUND TO RECOMMENDATION 43 – PERCEPTIBLE INFORMATION PRINCIPLE	1
1.2 GOVERNMENT RESPONSE TO RECOMMENDATION 43	2
2 PROJECT OBJECTIVES AND APPROACH	2
3 ANALYSIS OF ISSUES	3
3.1 TOOLS TO AID FOOD LABEL DESIGN	3
3.2 CURRENT REQUIREMENTS AND GUIDANCE FOR PRESENTATION OF INFORMATION ON FOOD LABELS IN AUSTRALIA AND NEW ZEALAND	8
3.3 SUMMARY OF INTERNATIONAL REQUIREMENTS FOR PRESENTATION OF INFORMATION ON FOOD LABELS.....	10
3.4 THE IMPACT OF LABEL FORMAT AND PRESENTATION ON CONSUMER USE AND UNDERSTANDING OF LABEL INFORMATION	12
3.5 THE SUITABILITY AND EFFECTIVENESS OF TOOLS AND REQUIREMENTS/GUIDANCE FOR PRESENTING INFORMATION ON FOOD LABELS	14
4 CONCLUSIONS.....	16
5 REFERENCES.....	17
ATTACHMENT A – SUMMARY OF LABELLING REVIEW RECOMMENDATIONS RELATING PRESENTATION OF INFORMATION ON FOOD LABELS.....	19
ATTACHMENT B – PRINCIPLES OF UNIVERSAL DESIGN AND GUIDELINES (CONNELL ET AL.1997)	20
ATTACHMENT C – REQUIREMENTS FOR FORMAT AND PRESENTATION OF MANDATORY INFORMATION ON FOOD LABELS IN AUSTRALIA/NEW ZEALAND, CANADA, THE USA AND EU (PACKAGED FOOD).....	22

Supporting document

- SD1 Literature review on the impact of label format on consumers' attention and comprehension for mandated label elements. Prepared for Food Standards Australia New Zealand by *instinct and reason*, Canberra, Australia 2013.

1 Introduction

1.1 Background to Recommendation 43 – Perceptible Information Principle

In 2009, the then Australian and New Zealand Ministerial Council for Food Regulation (now known as the COAG Legislative and Governance Forum on Food Regulation (Forum)) agreed to a comprehensive independent review of food labelling law and policy. An expert panel, chaired by Dr Neal Blewett, AC, undertook the review and the panel's final report, *Labelling Logic: Review of Food Labelling Law and Policy (2011)* (Labelling Logic) (Blewett et al. 2011), was publicly released on 28 January 2011.

Recommendation 43 from Labelling Logic states: *That the Perceptible Information Principle be used as a guide for labelling presentation to maximise label comprehension among a wide range of consumers.*

The Perceptible Information Principle, one of seven principles of universal design developed by the Centre for Universal Design in the USA in 1997, relates specifically to the presentation of information and therefore was considered by the labelling review panel to be a *useful guide for food labelling policy*. Refer to section 3.1.1 for further details.

The labelling review panel considered presentation issues to be central to label communication and therefore it was important to *apply universal design principles that aim to increase accessibility across the population*. The panel considered the use of universal principles, and in particular the Perceptible Information Principle, in food label design, to be warranted for several reasons:

- The importance of food to health means that as many consumers as possible need to be able to access information to inform food purchase decisions.
- The Australian and New Zealand population is ageing, which will result in increasing numbers of consumers with age-related vision deterioration.
- Less affluent population groups tend to have higher levels of obesity and related health issues.

The panel considered that these reasons demonstrate the need for food labelling to be *readily visible and comprehensible to a wide range of consumers with differing levels of vision, motivation, cognitive ability and knowledge*. It was therefore suggested that the adoption of a universal principles approach could have the *potential to increase the ability of food labelling to favourably influence the dietary behaviours of the maximum number of consumers*.

Recommendation 43 is one of several recommendations relating to presentation of information on food labels in Labelling Logic. Recommendations 5, 6, and 43-49 (excluding front-of-pack labelling), as a suite, are intended to improve the effectiveness of labelling in communicating important information relating to food safety and nutrition. A summary of these recommendations and the government response is at Attachment A).

1.2 Government response to Recommendation 43

The government response to the recommendations in Labelling Logic was publicly released in December 2011². In relation to Recommendation 43, the Forum noted that the:

- review panel considered the effectiveness of its recommendations in practice will depend on the consumer's ability to notice, read and comprehend the information provided on food labels
- principles and criteria that framed the review panel's work resulted in recommendations to ensure all relevant information is presented to enhance consumer comprehension
- principles of universal design are not specific to food or food labels and the Perceptible Information Principle includes elements that are not relevant for food labels.

The Forum asked FSANZ to undertake a technical evaluation and provide advice on the application of the Perceptible Information Principle to the presentational aspects of food labels, as well as whether the Perceptible Information Principle as a tool to aid food label design has benefits over other tools.

2 Project objectives and approach

The main objective of this project was to undertake an evaluation of the application of the Perceptible Information Principle to presentational aspects of food labelling. Specific objectives included:

- an analysis of the suitability and effectiveness of the Perceptible Information Principle and any other tools as a guide for food labelling presentation
- whether the Perceptible Information Principle as a tool to aid food label design has benefits over other tools
- the impact of the format of label information on consumer use and understanding of label information.

In addressing these objectives, FSANZ has:

- commissioned a literature review on (refer to Mercer et al. 2013 at SD1):
 - the impact of format/presentation on consumer use and understanding of label information
 - the application and effectiveness of the Perceptible Information Principle and any other tools to presentational aspects of food labels in order to maximise label comprehension among a wide range of consumers
- considered the requirements in the *Australia New Zealand Food Standards Code* (the Code) and any guidance provided by industry and jurisdictions relating to the presentation of mandatory food label information
- compared requirements in Canada, the USA and the EU relating to the presentation of mandatory food label information with those in the Code
- evaluated the suitability and effectiveness of requirements/guidance, the Perceptible Information Principle and any other tools for presentational aspects of information on food labels.

² Government response to Labelling Logic is at <http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/home>

3 Analysis of issues

3.1 Tools to aid food label design

The concept of universal design emerged in the 1980's from the disability rights movement (Story et al. 1998, Steinfeld and Maisel 2012). Initially, the approach was focussed on improving the accessibility of the built environment for those with disabilities. Over the last 30 years, the concept has also been applied to other areas including education, public health, public transportation and product design (Steinfeld and Maisel 2012).

While a number of models have been developed around consumer use and understanding of information from a variety of sources including food labels (see section 3.4), no tools similar to the Perceptible Information Principle have been reported in the literature (Mercer et al. 2013 (SD1)). However, various guidance documents have been developed to support clear labelling of both medicines and food (Institute for Safe Medication Practices 2013, Food Standards Agency 2008, Buckley and Shepherd 1993).

The following sections provide background information on the principles of universal design, including the Perceptible Information Principle and selected guidance documents on clear labelling.

3.1.1 Principles of universal design and the perceptible information principle

The term *universal design* was initially defined as *the design of products and environments to be usable by all people, to the greatest extent possible, without adaptation or specialised design* (Mace 1985). Story et al. (1998) considered universal design to respect human diversity and promote the inclusion of all people in all activities of life.

The seven principles of universal design and associated guidelines were first published in 1997 by the Centre for Universal Design (Connell et al. 1997)³. It was intended that the seven principles *be applied to evaluate existing designs, guide the design process, and educate both designers and consumers about the characteristics of more usable products and environments*. The seven principles of universal design with associated guidelines are at Attachment B (Connell et al. 1997). The Perceptible Information Principle is Principle 4 and is shown in Table 1 below.

³ The Centre for Universal Design at North Carolina State University was established in 1989 and became a leading national and international resource for research and information on universal design in housing, products, and the built environment.

Table 1: Perceptible Information Principle and Guidelines (Connell et al. 1997)

Principle 4: Perceptible Information	
Definition of principle 4: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.	
Guidelines	
4a	Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
4b	Provide adequate contrast between essential information and its surroundings ⁴ .
4c	Maximise 'legibility' of essential information.
4d	Differentiate elements in ways that can be described (i.e. make it easy to give instructions or directions).
4e	Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
Examples:	Tactile, visual, and audible cues and instructions on a thermostat. Redundant cueing (e.g. voice communications and signage) in airports, train stations, and subway cars.

No articles in the scientific or grey literature on the application of the Perceptible Information Principle to food labels have been identified (Mercer et al. 2013 (SD1)).

Story et al. (1998) provide examples of the application of guideline 4c in the Perceptible Information Principle to the design process including:

- the use of dark background on overhead airport terminal signage to contrast with lighted ceilings
- the provision on subway fare machines of tactile lettering in all-capital letters and printed lettering in capital and lower case letters for maximum legibility in each format.

Of the seven principles of universal design, the Perceptible Information Principle is most relevant to food labels and could provide some guidance. However, specific recommendations for achieving *adequate contrast* (4b) or *maximising legibility of essential information* (4c) are not provided. Guidelines 4a and 4e move beyond the label into consideration of alternative ways of providing information, such as verbal modes and the use of computer technology (refer to section 3.5 for further discussion).

The principles of universal design have not yet been widely adopted by those working in design. Indeed, the conceptual framework for universal design continues to evolve. Edward Steinfeld, one of the authors of the seven principles of universal design and co-author of a recent book on the topic (Steinfeld and Maisel 2012) considers the seven principles to be limited in scope and conception in the context of current thinking in design (E Steinfeld, pers. com.)⁵. Rather than focussing mainly on usability issues, Steinfeld suggests that more emphasis needs to be placed on how to improve social participation of diverse groups by not only removing barriers but also by providing positive support. Steinfeld and Maisel (2012) have consequently proposed a revised definition of universal design as follows:

Universal design is a process that enables and empowers a diverse population by improving human performance, health and wellness, and social participation.

This revised definition encompasses more than just the physical environment since the concept is also applicable to the provision of information and delivery of services; it addresses outcomes of the universal design process such as improved health and social participation and recognises that the full diversity of the population should be considered in

⁴ Guideline 4b was added after the principles of universal design were first published in 1997.

⁵ E Steinfeld, Director of the Centre for Inclusive Design and Environment Access, Department of Architecture, University at Buffalo, Buffalo, New York, personal communication 13 August 2013

design. It is therefore important that demographic information and trends relevant to a particular design project are considered. For example, in the context of food labelling, consideration could be given to the needs of the ageing population in Australia and New Zealand. Demographic projections indicate that the number of people in both Australia and New Zealand with impaired vision could nearly double by 2036⁶.

To complement the revision of the initial definition of universal design, the seven principles have also been reconsidered. Criticisms of the seven principles include the (Steinfeld and Maisel 2012):

- difficulty in applying the principles to specific design problems because of the lack of detail
- lack of clarity of some of the language used
- narrow scope as the principles do not address important issues such as health promotion and disease prevention
- difficulty for benchmarking as the principles and guidelines do not provide standards against which one can measure whether an environment or product is indeed a good example of universal design
- lack of a body of evidence related to the principles as this is a significant barrier to their use in practice.

Reference to the lack of a body of evidence underpinning the principles is an important issue when considering the possible application of the Perceptible Information Principle to food labelling. Requirements for the presentation of information on food labels clearly need to be supported by an evidence base (refer to section 3.4)

As part of the continuing discussion of the conceptual framework for universal design, Steinfeld and Maisel (2012) have developed eight goals of universal design which encompass human performance (goals 1-4), social participation (goals 6-8) and wellness (goal 5) which addresses both human performance and social participation, as follows:

1. *Body Fit* (accommodating a wide range of body sizes and abilities)
2. *Comfort* (keeping demands within desirable limits of body function)
3. *Awareness* (ensuring that critical information for use is easily perceived)
4. *Understanding* (making methods of operation and use intuitive, clear, and unambiguous)
5. *Wellness* (contributing to health promotion, avoidance of disease, and prevention of injury)
6. *Social Integration* (treating all groups with dignity and respect)
7. *Personalisation* (incorporating opportunities for choice and the expression of individual preferences)
8. *Cultural Appropriateness* (Respecting and reinforcing cultural values and the social and environmental context of any design product).

These goals extend the revised definition of universal design as previously noted.

Universal design involves a process whereby the principles and goals can be considered along with the relevant evidence base and demographic information with the aim of producing a design that supports human performance, social participation and wellness for as many people as possible.

⁶ In 2012 13.8% of the Australian population was aged 65 and over. This is projected to increase to over 20% by 2036 (Australian Bureau of Statistics 2012). Similarly in New Zealand, 13.8% of the population was also aged 65 and over in 2012 (Statistics New Zealand 2012a) and it is expected that 23% of New Zealanders will be aged 65 and over by 2036 (Statistics New Zealand 2012b).

3.1.2 Guidance for presentation of information on food labels

In 2008, the UK Food Standards Agency published best practice advice for the design of food labels. While this advice incorporates the relevant requirements from the food regulations in effect at that time, the advice also includes more detailed information and suggestions for ways to present information clearly (Food Standards Agency 2008). The UK Food Standards Agency has identified three key issues relating to clear labelling:

- finding information
- reading information
- understanding how to use information.

The guidance document makes recommendations that address the first two issues. For example, guidance is provided on font, type size, contrast; prioritisation, layout and consistency; ways to increase the printable area on the pack; format of date marking; presentation of nutritional information. Many of these aspects of format/presentation of label information have also been reported previously by Buckley and Shepherd (1993) in response to a review of food labelling practices in the UK. The overall aims of the guidance are to help:

- food businesses be aware of the legal requirements by bringing together relevant legislation on clear labelling and to support the development of labels with the highest clarity that is practicable by following best practice
- enforcement authorities to have an easily accessible reference source on clear labelling legislation and best practice
- consumers by encouraging food businesses to produce clear labels
- visually impaired consumers by addressing their specific requirements in relation to legibility (UK Food Standards Agency 2008).

Since this guidance was produced, new labelling regulations have been introduced in the EU (EU regulation No. 1169/2011 on the provision of information to consumers (EU FIC)) (see Section 3.3 and Attachment C). The extent to which the guidance is currently used by food businesses is not known.

The Institute for Safe Medication Practices in the USA has developed recommendations for the labelling of medicines, some of which are relevant for food labels (Institute for Safe Medication Practices 2013). Their recommendations include the following topics:

- font and type size (use the largest size the label allows – minimum of 18 point for people with low vision) use of bolding, maximising white space, logical organisation of information
- provision of explicit instruction to improve understanding – use of numbers instead of text, use mixed case, avoid abbreviations, simplify language avoiding unfamiliar terms
- use of a standard icon for signalling warnings.

Table 2 presents a summary of best practice advice relating to the presentation of label information from the three documents discussed above (Food Standards Agency 2008, Institute for Safe Medication Practices 2013, Buckley and Shepherd 1993).

Table 2: Summary of best practice advice/guidance on format/presentation of information on food labels (Food Standards Agency 2008, Institute for Safe Medication Practices 2013, Buckley and Shepherd 1993)

Aspect of Format/presentation	Best Practice Advice/Guidance		
	Recommended	To be used with care	Best avoided
Grouping of information	<ul style="list-style-type: none"> Mandatory information grouped together with defined borders either on single face of pack or in same field of vision Group text into separate, conceptually-related sections to facilitate searching and acquisition of information 	<ul style="list-style-type: none"> If not possible to group all information together present information in two groups and use directions between the two groups, only if necessary. 	<ul style="list-style-type: none">
Information location	<ul style="list-style-type: none"> Use of top right hand corner for maximum noticeability, followed by bottom left hand corner. 		<ul style="list-style-type: none">
Language	<ul style="list-style-type: none"> Where possible use only one or minimum number of languages. Simplify language, avoiding unfamiliar terms 		<ul style="list-style-type: none"> Large number of languages
Font and type size	<ul style="list-style-type: none"> Open fonts such as Arial for letters Thicker, denser line letters make text easier to read Bold type if print quality is retained Mixed case Minimum font size of 8-point if contrast, text format and print quality is a high standard. If they are not of a high standard a larger font size should be used Make sure numbers are distinct Use numbers instead of alphabetic characters 	<ul style="list-style-type: none"> Bold type Uppercase letters Underlining Hyphenation Justified text Coloured text/backgrounds Where space is limited at least the name of the food, the date mark, list of ingredients and allergen information should be listed in 10-point, with a minimum of size 6-point used for other information 	<ul style="list-style-type: none"> Ornate fonts Shadowing Italics, oblique, narrow, condensed fonts Arial for numbers as 6, 8, and 9 may be misread
Contrast	<ul style="list-style-type: none"> Black type on a white background or good tonal contrast of at least 70% Greater the brightness contrast between text and background, the greater the legibility. 	<ul style="list-style-type: none"> Light type on a dark background Where packaging is transparent, good contrast is necessary with food product forming the visible background Watermarking or non-solid background (e.g. dot filled background) where text appears 	<ul style="list-style-type: none"> Dark type on a dark background Light type on a light background Green/red or yellow/white combinations

Table 2 continued

Aspect of Format/presentation	Best Practice Advice/Guidance		
	Recommended	To be used with care	Best avoided
Colour	<ul style="list-style-type: none"> Red, blue, green and white aid rapid identification but colour must be considered in conjunction with other design factors. 		
Layout	<ul style="list-style-type: none"> Consistent layout of information within product ranges Text that starts from and is aligned with the left margin Horizontally printed wording rather than vertically printed wording Maximise the amount of white space while managing the readability of the text 	<ul style="list-style-type: none"> Text wrapping 	<ul style="list-style-type: none"> Label clutter Unnecessary prominence or emphasis of lot identification may mislead in relation to origin of food or date marks.
Surfaces	<ul style="list-style-type: none"> Matt finish printing surface 		<ul style="list-style-type: none"> Metallic and shiny surfaces Rough surfaces
Shapes	<ul style="list-style-type: none"> No more than five geometric shapes and no more than nine colour combinations of hue, brightness and saturation on any one label Use a standard icon system for signalling and organising auxiliary warnings and instructions Octagonal, triangular and diamond shapes can attract attention. 		

3.2 Current requirements and guidance for presentation of information on food labels in Australia and New Zealand

3.2.1 Current requirements in the Code

There are two main standards in the Code that set out format and presentation requirements for mandatory food label information: Standard 1.2.9 – Legibility Requirements and Standard 1.2.8 – Nutrition Information Requirements (refer to Attachment C). Standard 1.2.9 requires that the mandatory information on a food label is legible and prominent such as to afford a distinct contrast to the background, and is in the English language. Type size is prescribed for warning statements and for country of origin labelling of unpackaged foods (Standard 1.2.11 – Country of Origin Labelling) only. Standard 1.2.8 prescribes the layout of the nutrition information panel (NIP) including the format for column headings, borders, text case, and order nutrients are presented in the table.

The user guide for Standard 1.2.9 includes suggestions of ways to help make information on a label as easy to read as possible (FSANZ 2010). For example, factors affecting legibility,

suggestions for improving legibility, ways to make information noticeable and suggestions for the positioning of information, are included. The user guide for Standard 1.2.8 recommends that food businesses check table borders, text case, the order nutrients are presented in the table and format for column headings are as prescribed in the Standard (FSANZ 2012).

It is of interest to note that the former Australian *Food Standards Code* and the *New Zealand Food Regulations (1984)* that were in operation before the gazettal of the joint Code in 2000, contained a number of provisions relating to key legibility criteria, such as standard type (upper case/lower case), type size, placement of information, uniform colour and type of font. As part of the development of the joint Code, it was considered that prescribed information should be regulated using general legibility criteria only, that is, that information should be prominent, legible and in English. Reasons for this decision included the difficulty in identifying which format criteria are critical given that legibility can be optimised using a number of effective combinations of legibility criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for manufacturers. Due to their direct role in the protection of public health and safety, it was considered that warning statements should be treated in a more prescriptive manner in relation to type size. At the time Standard 1.2.9 was finalised, a brief guideline document was also prepared. Similar guidance information was incorporated in the user guide for Standard 1.2.9.

3.2.2 Guidance from industry on presentation of information on food labels

The Australian Food and Grocery Council (AFGC) has the *Code of Practice for Food Labelling and Promotion* freely available on its website (AFGC 2011). Some food businesses have signed up as signatories to the Code of Practice. The food labelling and promotion aspects currently covered by the Code of Practice are the Daily Intake Guide (DIG) labelling scheme, date marking, and allergen labelling.

The Code of Practice includes recommended allergen labelling formats for food businesses to adopt, noting that the Code does not specify the format of allergen labelling. The following labelling format is recommended:

- an ingredient list declaring in bold allergenic substances and their derivatives
- an allergen summary statement using the word 'contains'
- a precautionary statement using the words 'may be present'.

Alternative labelling formats are also suggested when label size constraints and other variables do not allow the use of the recommended labelling format as follows:

- when an allergen summary statement is present, bolding and qualifying allergenic substances in the ingredient list is optional
- when an allergen summary statement is not present, allergenic substances are bolded and qualified within the ingredient list.

FSANZ is not aware of any other guidance on the presentation of information on food labels developed by industry for use in New Zealand and Australia.

3.2.3 Guidance from jurisdictions on presentation of information on food labels

Some jurisdictions in Australia cover the requirements for presentation of information on food labels that are specified in the Code in guidance documents⁷. However, such documents only repeat the requirements and do not provide any best practice advice for the format or presentation of mandatory information on food labels.

The Ministry for Primary Industries in New Zealand includes brief comments on aspects of the legibility of label information in section 6 of its food labelling guide⁸. Reference is made to the need for labelling to be impossible to remove, that consideration should be given to the conditions under which the food is presented for sale (e.g. lighting, ice crystals on labels in a freezer display cabinet), eyesight of likely purchasers of the product, common colour blindness disabilities and positioning of mandatory information on the package.

3.3 Summary of international requirements for presentation of information on food labels

3.3.1 Codex requirements

Codex includes a brief reference to the presentation of label information in some of its standards and guidelines on food labelling. For example, the *General Standard for the Labelling of Prepackaged Foods* (Codex Standard 1-1985) states that:

- *statements shall be clear, prominent, indelible and readily legible by the consumer under normal conditions of purchase and use*
- *where the container is covered by a wrapper, the wrapper shall carry the necessary information or the label on the container shall be readily legible through the outer wrapper or not obscured by it*
- *the name and net contents of the food shall appear in a prominent position and in the same field of vision.*

In addition to the points noted above the *General Standard for the Labelling of Food Additives when Sold as Such* (Codex Standard 107-1981) also includes reference to the type size of the name of the food additive in relation to the most prominent printed matter on the label.

3.3.2 Comparison of requirements for presentation of mandatory information on food labels in Canada, the USA and the EU with those in Australia and New Zealand

A summary of requirements for the presentation of mandatory information on food labels in Canada, the USA and the EU, along with the requirements for Australia and New Zealand is at Attachment C.

In contrast to the requirements in the Code, regulations in other countries include minimum type size for packages of specified size and for some label elements, the use of bolding, for example for the common name, net quantity, and instructions for use. Another aspect of

⁷ Examples of guidance documents provided by jurisdictions in Australia can be found at <http://www.health.qld.gov.au/ph/documents/ehu/28009.pdf> and <http://www.foodauthority.nsw.gov.au/industry/food-business-issues/labelling/> and http://www.public.health.wa.gov.au/3/1669/2/food_labelling.pm#13

⁸ The food labelling guide is at <http://www.foodsafety.govt.nz/elibrary/industry/nzfsa-food-labelling-guide/index.htm>.

labelling that has been included in overseas regulations to varying degrees is the grouping of certain mandatory elements.

The Canadian food and drug regulations include detailed requirements for the presentation of nutrition information as do the USA regulations and both regulations are supported by very detailed guidance. In contrast, Standard 1.2.8 – Nutrition Information Requirements, sets out the required format of the NIP by way of a table and the user guide for Standard 1.2.8 provides an example. There are no particular requirements for the orientation of the NIP on a label, or font/type size, use of colour, contrast etc. within the NIP in the Code.

In the EU regulation 1169/2011, allergens are required to be highlighted in the ingredient list. This aspect of label format is specifically the subject of Recommendation 47 for which FSANZ has been asked to provide separate technical evaluation and advice.

FSANZ notes the government response to Recommendations 44 (mandatory font size) and 46 (minimum contrast level) in Labelling Logic did not support mandatory font size or contrast settings because it was considered that highly prescriptive requirements could place design limitations on industry, costs of such requirements could outweigh potential benefits, and a user guide for Standard 1.2.9 is available.

3.3.3 Guidance on presentation of information on food labels

The Canadian Food Inspection Agency has published a *Guide to Food Labelling and Advertising*⁹. The guide is a tool to help industry comply with legislation and includes reference to the requirements for the format/presentation of information on food labels. The guide includes extensive information on the format of the nutrition facts table which supports the detailed requirements set out in the regulations. A summary of legibility and location requirements is also provided¹⁰.

The US Food and Drug Administration (FDA) also provides a labelling guide which helps industry comply with the regulations¹¹. As in Canada, there are no documents available that provide best practice advice/guidance on clear labelling.

The British Retail Consortium in partnership with the Food and Drink Federation has published guidance on allergen labelling which incorporates the requirements in Regulation (EU) No. 1169/2011 on the provision of food information to consumers (EU FIC) (British Retail Consortium 2013). While the EU FIC requires allergens listed in an ingredient list to be highlighted in some manner (Attachment C), the advice recommends that allergens are bolded. No other guidance on the format/presentation of information about allergens is provided in this document. FoodDrinkEurope has also released a guidance document on the management of allergens that includes reference to labelling requirements in the EU FIC. This document also recommends bolding of allergens in an ingredient list¹².

The Department of Health in the UK has recently published *Technical Guidance on Nutrition Labelling* (UK Department of Health 2013). This document explains the nutrition-related requirements under EU FIC and specifically includes reference to legibility requirements for

⁹ The *Guide to Food Labelling and Advertising* is at <http://www.inspection.gc.ca/food/labelling/guide-to-food-labelling-and-advertising/eng/1300118951990/1300118996556>

¹⁰ *Legibility and Location of Labelling Information* is at <http://www.inspection.gc.ca/food/labelling/core-requirements/legibility-and-location/eng/1328038498730/1328038540376?chap=2>

¹¹ *Guidance for Industry: A Food Labelling Guide* is at <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm2006828.htm>.

¹² *Guidance on Food Allergen Management for Food Manufacturers* is available at http://www.fooddrinkeurope.eu/uploads/publications_documents/FINAL_Allergen_A4_web.pdf

nutrition declarations. The Department for Environment, Food and Rural Affairs (DEFRA) in the UK anticipates releasing a guidance document on general labelling requirements and allergen labelling together with national legislation (*The Food Information Regulations 2013*) by the end of 2013¹³. This document will not go beyond guidance on compliance with the regulations. The Department of Health in the UK has advised that it has not seen any guidance documents relating to EU FIC from other EU member states to date (D. Townsend, pers. com.)¹⁴.

The industry groups FoodDrinkEurope and EuroCommerce released a guidance document on the EU FIC in September 2013. This document only covers the legibility requirements and not any best practice advice¹⁵.

3.4 The impact of label format and presentation on consumer use and understanding of label information

Mandatory food labelling is a key source of information for consumers at the point of purchase. The Perceptible Information Principle, in part, relates to the ability of people to notice, locate and use mandatory food labelling. Commissioned by FSANZ, Mercer et al. (2013) (SD1) have undertaken a literature review on the impact of format and presentation of mandated label elements on consumers' attention and comprehension. The literature review had, as its primary focus, the format and presentation (e.g. font, format, contrast, position) of mandatory label elements rather than content per se¹⁶. Searches of the peer-reviewed and grey literature identified 61 articles that were considered in scope for the review.

A number of models and approaches have been used to guide the study of the impact of labelling on consumers. Mercer et al. (2013) identified a number of the models regarding consumers' use of food labels, and more generally warning labels and other information sources. Most of the models recognise a staged approach to how consumers interact with labels to arrive at a decision. Typically, this comprises an initial stage of search and attention where the label element is noticed, followed by an evaluative stage where information is accessed and interpreted, leading to a final decision stage of purchasing the product or not. Mercer et al. (2013) adopted an information processing model as the conceptual framework for the literature review, the Attention, Knowledge and Compliance (AKC) model.

The AKC model has been used largely in the context of the communication of warnings (e.g. Wogalter and Laughery 1996; Wogalter et al. 1999; Laughery and Wogalter in press). In order to use the content of mandatory label information, consumers first need to notice the information and be aware of it. This is the *attention* stage of the AKC model. Attention is the process through which information gained by the senses, is filtered to remove irrelevant information. The information left is then made available for other cognitive processes. In the context of food labelling, sight is likely to be the primary sense used. The second stage, *knowledge acquisition*, includes the comprehension and understanding of the label information and its evaluation and assessment. This may draw on consumers' knowledge about the information, their previous experiences, their motivations and goals, and their values, beliefs and attitudes. Depending on the nature of the decision to be made, greater or lesser cognitive effort may be involved in this process, and other factors may also impact

¹³ A draft guidance document is available at <https://www.gov.uk/government/consultations/food-information-regulations-fir-2013>

¹⁴ D. Townsend, Food Legislation & Standards Manager, Obesity and Food Policy Branch, Department of Health, London, UK personal communication 28 August 2013

¹⁵ *Guidance on the Provision of Food Information to Consumers* is available at

http://www.fooddrinkurope.eu/uploads/press-releases_documents/FDE_Guidance_WEB1.pdf

¹⁶ Note that the FSANZ work on Recommendation 6 from Labelling Logic includes consideration of content and format of food safety labelling elements and work on Recommendation 14 will include relevant evidence on consumer use and understanding of fibre information.

such as affect and mood (Loken 2006). Finally, the *compliance* stage, is focussed on behavioural compliance with the intent of the label. In the context of food labelling the term compliance is not as accurate as perhaps the term behaviour would be. The former term reflects the heritage of the AKC model from research with warning signs where compliance with a particular warning is the desired behavioural outcome. Despite this, the three stages are useful as an organising framework to consider the aspects that could enhance the effectiveness of mandatory labelling to inform consumers' decision making.

When considering the role of format and presentation in the attention stage of consumers' use of label information, Mercer et al. (2013) highlighted six relevant factors from the literature:

- **shape** of the area containing the information – shapes can increase attention particularly for warning signs
- **location** of the information – front of package gains more attention
- **size** of the information – bigger text gains more attention
- use of **colour and symbols** – pictures and graphics can be more attention grabbing than text
- **text direction** – horizontal labels more noticeable
- use of **signal words** – for example 'danger' is useful in the case of warnings (refer to Table 6 in the report by Mercer et al. 2013).

At the next stage in the process, a number of factors were identified by Mercer et al. (2013) as aiding knowledge acquisition. The ones with the greatest relevance to mandatory labelling are:

- **graphics** – the use of symbols to convey meaning but notes limited application for some types of data that are best expressed textually
- **tables** – can enhance the speed at which information can be accessed compared to text
- **information clutter** – reducing density of information may enhance the attention on particular label elements
- **consistency of information** – consistent location, format and terminology assists consumers to find and use nutritional information
- **use of numbers** – can create difficulties for some consumers, while descriptive terms (high/low) are more readily understood
- **multiple avenues for delivery of information** – for example different modes including computer based solutions
- **lines and shading** – to divide sections of the information
- **font** – font types and size impact on the readability of textual information.

The final stage is the compliance stage, or as noted above, the resulting behaviour to purchase the product or not.

It is difficult to determine from the literature if any particular aspects of format and presentation are more important than others in affecting consumers' attention and knowledge acquisition due to the limited evidence base. In addition, it is recognised that different combinations of format criteria can achieve optimal legibility. Mackey and Metz (2009) identified the following elements that may contribute most to making print readable from a focus group study in Canada: large print size, space between lines, good colour contrast, position and organisation of text, mixed case, left justification and matt surface. Most of these aspects are noted above. Mercer et al. (2013) (SD1) observed that many of the studies they reviewed were specific to the nutrition information panel, warnings on products or medication labels but that the principles relating to format would likely be of

relevance to food labels. There is limited evidence on actual use of label information by consumers including the influence of format and presentation factors. The use of computer technology to supplement information provided on labels is likely to become of increasing interest in the future.

3.5 The suitability and effectiveness of tools and requirements/guidance for presenting information on food labels

The philosophy of universal design can be broadly applied to the presentation of information on food labels. Ideally, information on food labels should be presented in a manner that is accessible to as many consumers as possible to support informed choice so that consumers can choose food that is safe and nutritious. While universal design, as a process and philosophy could be applied to the design of food labels, in order to achieve a useful outcome, knowledge of consumer use and understanding of information on labels including aspects of design that particularly influence consumer use and understanding, is desirable as a starting point.

An analysis of the Perceptible Information Principle in the context of current requirements in the Code for the presentation of mandatory label information is provided in Table 3 below. Guidelines 4b and 4c are covered by the requirements in Standard 1.2.9 (with general references to legibility and contrast) and also by the FSANZ user guide for Standard 1.2.9 which includes some discussion on ways to improve legibility.

While guidelines 4a, 4d and 4e are not specifically covered in the Code, the intent of the guidelines could be applied to the provision of mandatory label information to consumers both via the label and by other means, possibly through the development of further guidance, if required. Currently, the use of different modes for presenting information on food labels is limited (guideline 4a), however, some voluntary front-of pack systems do combine both pictorial and textual presentation of nutrition information. The combination of pictorial representations of product ingredients and percentage declarations in the ingredient list is another example. Computer technology is another means of providing information to consumers who may benefit from a verbal or large print format.

In the context of food labelling, guideline 4d could relate to, for example, differentiation of instructions for using a product from other label information via the use of colour or using colour to help make allergen information easier to find. Although there are requirements for type size for warning statements in the Code, such a requirement does not guarantee that warning statements are readily distinguishable from surrounding text.

Food labels are compatible with other means of providing information to consumers (guideline 4e). For example, hand-held devices such as smart phones can be used to scan barcodes which can facilitate the display of ingredients and check products for allergens of particular interest. However, the usefulness of this relies on the scope of the product database. The use of technology such as smart phones has the potential to increase and improve the accessibility of information to the consumer and could become a significant source of information for many consumers in the future. To what extent such a development might influence the presentation and indeed the content of mandatory information on food labels is unclear at this time.

Table 3: Analysis of the Perceptible Information Principle in the context of food labelling

	PIP Guideline	Coverage by the Code	Comment
4a	Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.	Nil	<ul style="list-style-type: none"> Given the nature of food labels the presentation of information in different modes is not mandatory. Some voluntary front-of-pack systems and some approaches to nutrition content claims do provide information in both pictorial and textual modes. There is potential for solutions using computer technology to provide information in verbal modes for sight impaired consumers.
4b	Provide adequate contrast between essential information and its surroundings ¹⁷ .	Yes	<ul style="list-style-type: none"> Standard 1.2.9 states label information must be <i>written or set out legibly and prominently such as to afford a distinct contrast to the background</i>. User guide for Standard 1.2.9 gives guidance on contrast.
4c	Maximise 'legibility' of essential information.	Yes	<ul style="list-style-type: none"> Standard 1.2.9 states label information must be written or set out legibly. Type size specified for warning statements only. User guide for Standard 1.2.9 suggests ways to improve legibility.
4d	Differentiate elements in ways that can be described (i.e. make it easy to give instructions or directions).	Nil	<ul style="list-style-type: none"> Currently, limited applicability to mandatory label information. An example could be use of colour to help make allergen information easier to find.
4e	Provide compatibility with a variety of techniques or devices used by people with sensory limitations.	Nil	<ul style="list-style-type: none"> There is increasing use of the internet by food businesses for providing nutritional information and there is the capacity for that to be read aloud for individuals with sight impairments. Mobile phone apps relating to the provision of label information are available.

There are a number of other aspects relating to the format/presentation of label information that have been identified in the literature that are not clearly encompassed by the Perceptible Information Principle, such as the grouping of information, consistency of information, layout, use of shapes, use of symbols, use of language such as 'signal' words, use of numbers versus text. It is of interest to note that many of these aspects have been included in the guidance developed by the UK Food Standards Agency (2008) and to some degree by the Institute for Safe Medication Practices (2013) (refer to summary Table 2). No comparable best practice guidance is currently available for use in Australia and New Zealand. As noted at Attachment A, Recommendations 45 (guidelines on presentation factors) and 48 (co-location of mandatory health information) relate to the development of industry guidelines.

There is no information available on the effectiveness of the application of the Perceptible Information Principle to the presentation of information on food labels as the principle has not yet been explicitly applied to food labelling. No other tools similar to the Perceptible Information Principle have been identified. However, guidance documents providing

¹⁷ Guideline 4b was added after the principles of universal design were first published in 1997.

suggestions for food businesses can assist with the presentation of information on food labels (section 3.1.2). The effectiveness of such guidance documents in improving the legibility of information on food labels is unknown.

4 Conclusions

The key findings from this technical evaluation of Recommendation 43 are as follows:

- The Perceptible Information Principle can be applied to the format and presentation of mandatory information on food labels but has not been explicitly applied to date.
- The Perceptible Information Principle is chiefly about principles of good design and does not provide any degree of detail or prescription that assists designers to meet the principles.
- Two of the five guidelines associated with the Perceptible Information Principle that relate to legibility and contrast are covered in Standard 1.2.9 and the user guide for Standard 1.2.9.
- The remaining three guidelines are not specifically covered in the Code. However, the intent of the guidelines (use of more than one mode of providing information, differentiation of information and the use of computer technology) could be applied to the provision of mandatory label information, both via the label and by other means, through developing further guidance, if required.
- No other tools similar to the Perceptible Information Principle have been identified. However, best practice advice/guidance is available which can assist with the presentation of information on food labels. Such guidance documents provide more detailed suggestions for maximising legibility and presentational aspects of information than what is encompassed by the Perceptible Information Principle.
- There is a limited evidence base on the impact of format and presentation on consumer use and understanding of mandatory label information. Many of the aspects of format identified in the literature to be of relevance to consumers have been included in the user guide for Standard 1.2.7, the guidance on allergen labelling provided by the Australian Food and Grocery Council and in best practice advice/guidance documents available overseas. The effectiveness of the best practice advice/guidance documents is unknown.
- Food regulations in Canada, the USA and the EU include detailed requirements relating to legibility and format of mandatory information on food labels in contrast with the general legibility criteria in the Code. Reasons for having general legibility criteria in the Code include the recognition that legibility can be optimised using a number of effective combinations of criteria and that regulations should be no more prescriptive than is necessary to protect public health and safety while providing maximum flexibility for food businesses.

5 References

- Australian Bureau of Statistics 2012 Australian Social Trends, Data Cube - Population (cat. no. 4102.0)
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/BE6B2842A6549A7FCA257ACC000E2A23?OpenDocument> Accessed 13 August 2013
- Australian Food and Grocery Council (AFGC) (2011) Code of Practice for Food Labelling and Promotion. <http://www.afgc.org.au/industry-codes/cop-food-labelling-a-promotion.html> Accessed 6 August 2013
- Blewett N, Goddard N, Pettigrew S, Reynolds C, Yeatman H (2011) Labelling logic: Review of food labelling law and policy (2011). Department of Health and Ageing, Canberra, Australia.
[http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/48C0548D80E715BCCA257825001E5DC0/\\$File/Labelling%20Logic_2011.pdf](http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/48C0548D80E715BCCA257825001E5DC0/$File/Labelling%20Logic_2011.pdf) Accessed 5 August 2013
- British Retail Consortium (2013) BRC guidance on allergen labelling and the requirements in regulation 1169/2011.
http://www.brc.org.uk/brc_policy_content.asp?icat=46&isubcat=658&spolicy=food&ssubpolicy=labeling Accessed 13 August 2013
- Buckley P, Shepherd R (1993) Ergonomic factors: The clarity of food labels. British Food Journal 95(8):18-21. doi: 10.1108/00070709310043510
- Connell BR, Jones M, Mace R, Mueller J, Mullick A, Ostroff E, Sanford J, Steinfeld E, Story M, Vanderheiden G (1997) The Principles of Universal Design, Version 2.0. The Centre for Universal Design, Raleigh. NC: North Carolina State University.
http://www.ncsu.edu/ncsu/design/cud/about_ud/udprinciples.htm Accessed 5 August 2013
- Food Standards Agency (2008) Food labelling: clear food labelling guidance. Food Standards Agency, U.K. <http://www.food.gov.uk/multimedia/pdfs/clearfoodlabelling.pdf> Accessed 10 August 2013
- FSANZ (2010) Legibility requirements for food labels. User guide to Standard 1.2.9 – Legibility Requirements.
<http://www.foodstandards.gov.au/code/userguide/pages/legibilityrequiremen1401.aspx> Accessed 6 August 2013
- FSANZ (2012) Nutrition Information. User guide to Standard 1.2.8 – Nutrition Information Requirements. Part B Nutrition Claims.
<http://www.foodstandards.gov.au/code/userguide/pages/nutritioninformation1406.aspx> Accessed 6 August 2013
- Institute for Safe Medication Practices (2013) Principles of designing a medication label for community and mail order pharmacy prescription packages.
www.ismp.org/tools/guidelines/labelFormats/comments/default.asp Accessed 13 August 2013
- Laughery KT and Wogalter MS (in press) A three-stage model summarizes product warning and environmental sign research. Safety Science. doi:10.1016/j.ssci.2011.02.012

Loken B (2006) Consumer psychology: Categorization, inferences, affect and persuasion. Annual Review of Psychology 57:453-85

Mace R (1985) Universal Design: Barrier Free Environments for Everyone. Designers West 33(1) 147-152

Mackey MA and Metz M (2009) Ease of reading of mandatory information on Canadian food product labels. International Journal of Consumer Studies 33:369-381. doi 10.1111/j.1470-6431.2009.00787.x

Mercer R, Young M, Rimpeekool W, Marshall A, Hector D, Dickson J, Phillips R (2013) Literature review on the impact of label format on consumers' attention and comprehension for mandated label elements. Report prepared for Food Standards Australia New Zealand by *instinct and reason*, Canberra, Australia

Statistics New Zealand 2012a National Population Estimates: September 2012 quarter. http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalPopulationEstimates_HOTPSep12qtr.aspx Accessed 13 August 2013

Statistics New Zealand 2012b National Population Projections: 2011(base)–2061 http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalPopulationProjections_HOTP2011.aspx Accessed 12 August 2012

Steinfeld E and Maisel J (2012) Universal Design: Creating Inclusive Environments. John Wiley & Sons, Inc., Hoboken, New Jersey

Story MF, Mueller JL, Mace RL (1998) The Universal Design File. Designing for people of all ages and abilities. Centre for Universal Design, Raleigh. NC: North Carolina State University http://www.ncsu.edu/ncsu/design/cud/pubs_p/pudfiletoc.htm Accessed 5 August 2013.

UK Department of Health (2013) Technical Guidance on Nutrition Labelling. (<https://www.gov.uk/government/publications/technical-guidance-on-nutrition-labelling>) Accessed 19 August 2013

Wogalter MS and Laughery KR (1996) Warning! Sign and label effectiveness. Current Directions in Psychological Science 5(2):33-37

Wogalter MS, Dejoy DM, Laughery KR (1999) Warnings and risk communications. Taylor & Francis, London. Attachments

Attachment A – Summary of labelling review recommendations relating presentation of information on food labels

Labelling review recommendations relating to presentation of information on food labels	Government Response ¹
5. That information on food labels be presented in a clear and comprehensible manner to enhance understanding across all levels of the population.	The Forum will develop an overarching policy statement on food labelling that supports the principle that information on food labels be presented in a clear and comprehensible manner to enhance understanding. The policy statement will guide decisions and actions by both government and industry.
6. That the food safety elements on the food label be reviewed with the aim to maximise the effectiveness of food safety communication.	The Forum will request that FSANZ undertake a technical evaluation and provide advice on the food safety elements on food labels. Advice from FSANZ will assist the Forum to fully consider the expected benefits and cumulative impacts of possible changes to mandatory labelling requirements prior to proposing any amendments to the existing labelling requirements in the Food Standards Code, noting that food safety is the most critical message to communicate to consumers.
43. That the Perceptible Information Principle be used as a guide for labelling presentation to maximise label comprehension among a wide range of consumers.	The Forum notes recommendation 43 and will request FSANZ to undertake a technical evaluation and provide advice on the application of the Perceptible Information Principle to the presentational aspects of food labels, as well as whether the Perceptible Information Principle as a tool to aid food label design has benefits over other tools.
44. That a minimum font size of 3.5mm in an open font style in mixed case be applied for mandated information, with then exception of small package sizes where the minimum font size should be 1.5mm. (Note this was not supported by the Forum)	The Forum agrees not to pursue action in relation to recommendation 44 at this time.
45. That a set of guidelines be developed in consultation with industry that includes reference to other presentation factors such as letter and line spacing, text justification and stroke width.	The Forum supports the work being undertaken by the AFGC and will request FSANZ to work with the AFGC and other industry organisations in Australia and New Zealand as appropriate to identify and clarify those presentational factors and problems with existing Food Standards Code provisions that lead to consumer confusion. These aspects of presentation could be explored through consumer research and raised as focus areas for industry to consider for inclusion in the AFGC Code of Practice for Food Labelling and Promotion.
46. That a minimum contrast level of 70% for mandated information be stipulated in the Food Standards Code. (Note this was not supported by the Forum)	The Forum agrees not to pursue action in relation to recommendation 46 at this time.
47. That warning and advisory statements be emboldened and allergens emboldened both in the ingredients list and in a separate list.	The Forum notes recommendation 47, and will request FSANZ to undertake a technical evaluation and provide advice, including advice on the benefits of mandatory requirements compared with the cost burden imposed by design limitations, before a final decision is made to amend the Food Standards Code.
48. That industry be encouraged to develop a set of guidelines relating to the co-location of mandatory health information presented in a standardised manner on the label. Government should facilitate this process through the provision of appropriate resources and expertise.	The Forum supports recommendation 48 in principle and will support industry by requesting FSANZ to provide advice on any guidelines developed by industry.
49. That the development of an automated label assessment tool be investigated that can gauge a label's compliance with mandated legibility requirements and those stipulated in relevant voluntary codes.	The Forum supports the provision of guidance to industry to assist compliance with labelling requirements. The Forum notes the recommendation and will request the FSANZ to consider the current tools available with a view to review, enhance and, where appropriate, more widely promote their use.

¹ Government response to Labelling Logic is at

<http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/home>

Attachment B – Principles of Universal Design and Guidelines (Connell et al.1997)

PRINCIPLE ONE: Equitable Use

The design is useful and marketable to people with diverse abilities.

Guidelines:

- 1a.** Provide the same means of use for all users: identical whenever possible; equivalent when not.
- 1b.** Avoid segregating or stigmatizing any users.
- 1c.** Provisions for privacy, security, and safety should be equally available to all users.
- 1d.** Make the design appealing to all users.

PRINCIPLE TWO: Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

Guidelines:

- 2a.** Provide choice in methods of use.
- 2b.** Accommodate right- or left-handed access and use.
- 2c.** Facilitate the user's accuracy and precision.
- 2d.** Provide adaptability to the user's pace.

PRINCIPLE THREE: Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Guidelines:

- 3a.** Eliminate unnecessary complexity.
- 3b.** Be consistent with user expectations and intuition.
- 3c.** Accommodate a wide range of literacy and language skills.
- 3d.** Arrange information consistent with its importance.
- 3e.** Provide effective prompting and feedback during and after task completion.

PRINCIPLE FOUR: Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Guidelines:

- 4a.** Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
- 4b.** Provide adequate contrast between essential information and its surroundings.
- 4c.** Maximize "legibility" of essential information.
- 4d.** Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- 4e.** Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

PRINCIPLE FIVE: Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Guidelines:

- 5a.** Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
- 5b.** Provide warnings of hazards and errors.
- 5c.** Provide fail safe features.
- 5d.** Discourage unconscious action in tasks that require vigilance.

PRINCIPLE SIX: Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Guidelines:

- 6a.** Allow user to maintain a neutral body position.
- 6b.** Use reasonable operating forces.
- 6c.** Minimize repetitive actions.
- 6d.** Minimize sustained physical effort.

PRINCIPLE SEVEN: Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Guidelines:

- 7a.** Provide a clear line of sight to important elements for any seated or standing user.
- 7b.** Make reach to all components comfortable for any seated or standing user.
- 7c.** Accommodate variations in hand and grip size.
- 7d.** Provide adequate space for the use of assistive devices or personal assistance.

Please note that the Principles of Universal Design address only universally usable design, while the practice of design involves more than consideration for usability. Designers must also incorporate other considerations such as economic, engineering, cultural, gender, and environmental concerns in their design processes. These Principles offer designers guidance to better integrate features that meet the needs of as many users as possible (Connell et al. 1997).

Attachment C – Requirements for format and presentation of mandatory information on food labels in Australia/New Zealand, Canada, the USA and EU (packaged food)

Labelling element	Australia and New Zealand <i>(Australia New Zealand Food Standards Code)</i>	Canada <i>(Food and Drugs Act 1985, Food and Drug Regulations, Consumer Packaging and Labelling Act 1985, Consumer Packaging and Labelling Regulations)</i>	USA <i>(Food, Drug and Cosmetic Act, Fair Packaging and Labelling Act) Food Allergen Labelling and Consumer Protection Act 2004</i>	EU <i>(Regulation EU No. 1169/2011 – Provision of food information to consumers – EU FIC)¹⁸</i>
General	<p>Standard 1.2.9 – Legibility Requirements, requires that prescribed labelling and information is in English. All information on a label must be written legibly and prominently such as to afford a distinct contrast to the background.</p> <p>Standard 1.2.9 also includes size of type requirements for warning statements (e.g. statements about royal jelly, infant formula, food for infants, formulated supplementary sports food). Type size must not less than 3 mm, or, in the case of a small package, not less than 1.5 mm.</p>	<p>Required information must be easily read and clearly and prominently displayed in both French and English¹⁹ (with a recommended minimum type height of 1.6 mm (1/16 inch), based on the lowercase letter "o", unless otherwise specified); and located on any panel except the bottom, except for the information required to appear on the principal display pane (PDP)²⁰.</p> <p>All mandatory information must appear grouped together, on any part of the label, unless it is information which is required to be shown on the PDP or information exempted from grouping</p>	<p>There are placement requirements for labelling statements, either: all required labelling statements on the front label panel (principal display panel) (PDP)²¹, or certain specified label statements on the front label panel and other labelling on the information panel (the label panel immediately to the right of the front label panel, as seen by the consumer facing the product).</p> <p>Certain label statements are generally required to be placed together, without any intervening material, on the information panel, if such labelling does not appear on the PDP. These label statements include the name and address of the</p>	<p>Mandatory information must be marked in a conspicuous place in such a way as to be easily visible, clearly legible and indelible.</p> <p>Mandatory information, including nutrition declaration, must be printed on the label in such a way as to ensure clear legibility, in characters using a font size where the 'x-height' is equal to or greater than 1.2mm (for packages 80 cm² and over).</p> <p>Mandatory information must appear in a language(s) easily understood by consumers of</p>

¹⁸ Provisions apply from 13 December 2014, except for provisions for mandatory nutrition declarations which apply from 13 December 2016. If, however, the nutrition declaration is provided on a voluntary basis during the period 13 December 2014 – 12 December 2016 or is required because a nutrition and/or health claim has been made or vitamins and/or minerals have been added to a foodstuff, then the EU FIC formatting and presentation provisions will apply to it from 13 December 2014.

¹⁹ There is one exception to the bilingual requirement as follows: The identity and principal place of business of the person by or for whom the pre-packaged product was manufactured, processed, produced or packaged for resale, may be in either English or French.

²⁰ *Principal Display Panel* refers to the main panel that is normally visible when the product is displayed for sale.

²¹ The term *principal display panel* as it applies to food in package form means the part of a label that is most likely to be displayed, presented, shown, or examined under customary conditions of display for retail sale. The principal display panel shall be large enough to accommodate all the mandatory label information required to be placed thereon by this part with clarity and conspicuousness and without obscuring design, vignettes, or crowding.

Labelling element	Australia and New Zealand	Canada	USA	EU
General continued		provisions e.g. identity of food business, date marking, nutrition facts table).	<p>manufacturer, packer or distributor, the ingredient list, nutrition labelling and any required allergy labelling.</p> <p>Information on the information panel must be prominent and conspicuous. Letters that are at least one-sixteenth (1/16) inch in height must be used.</p> <p>Smaller type sizes may be used for information panel labelling on very small food packages.</p>	Member States where a food is marketed.
Common name ²²	No additional format requirements	Must be shown on the PDP.	<p>Statement of identity or name of the food must be on the PDP and on alternate principle display panels (ie other surfaces suitable for principle display panels).</p> <p>Must be in bold type, in a size reasonably related to the most prominent printed matter on the PDP, and in lines generally parallel to the base on which the package rests as it is designed to be displayed.</p>	Name of the food, net quantity, declaration of alcoholic strength (for beverages containing more than 1.2% by volume of alcohol) must be in the same field of vision.
Net quantity	<p>Australia: Must be declared on principal display panel. Type size required depends on package size. Requirements for location on principal display panel.²³</p> <p>New Zealand: Must be in legible figures and letters. Should be in a prominent position and in close proximity to the product name. Letters and figures should be at least 2 mm in height and in a</p>	Must be declared on the PDP. Numerals must be shown in bold face type and in the size specified in the regulations according to the size of the PDP.	<p>Must be on the PDP and on alternate principle display panels (ie other surfaces suitable for principle display panels). Minimum type size requirements apply.</p> <p>Must appear in conspicuous and easily legible boldface print or type in distinct contrast to other matter. Must be separated from other printed label information appearing above or below the declaration and (by at least</p>	

²² *Common Name* refers to a prescribed name or the name by which the food is commonly known.

²³ In Australia, the National Trade Measurement Regulations 2009 regulate the declaration of the quantity statement on pre-packed food. These regulations are administered by the National Measurement Institute. <http://www.comlaw.gov.au/Details/F2009L03479/Html/Text#param124>

Labelling element	Australia and New Zealand	Canada	USA	EU
	colour that contrasts distinctly with the background. Smaller type size permitted on small packages. ²⁴		a space equal to twice the width of the letter “N” of the style of type used in the quantity of contents statement) from other printed label information appearing to the left or right of the declaration. It must be placed on the PDP within the bottom 30% of the area of the label panel in lines generally parallel to the base on which the package rests as it is designed to be displayed. On packages having a PDP of 5 square inches or less, the requirement for placement within the bottom 30 % of the area of the label panel shall not apply when the declaration of net quantity of contents meets the other requirements of this part.	
Name and address of manufacturer	No additional format requirements	No additional format requirements	No additional format requirements	No additional format requirements
List of ingredients	No additional format requirements	No additional format requirements	No additional format requirements	No additional format requirements
Quantitative ingredient declaration	No additional format requirements	Not mandatory	Percentage labelling required for some specific foods. For example, percentage of juice in beverages is required to be declared prominently on the information panel (if present) in lines generally parallel to other required information. There are specific requirements regarding location and format of this information including the use of easily legible boldface print or type in distinct contrast to other printed or graphic matter.	No additional format requirements

²⁴ In New Zealand weights and measures declarations are regulated in the Weights and Measures Act 1987 and associated regulations, which are administered by the Ministry of Consumer Affairs. <http://www.legislation.govt.nz/act/public/1987/0015/latest/DLM102579.html> Guidance is at <http://www.consumeraffairs.govt.nz/pdf-library/MAPSS-Weights-and-Measures-Act-web.pdf>.

Labelling element	Australia and New Zealand	Canada	USA	EU
Date marking	Must be expressed in numerical form, except for month which may be expressed in letters. Day, month, year must be distinguishable.	Best before date may be placed on the bottom of the container, as long as a clear indication of its location is shown elsewhere on the label.	Not mandatory	Best-before or use-by date required: No additional format requirements
Storage instructions/conditions of use and instructions for use	No additional format requirements	Not mandatory	<p>Some instructions required for certain foods, with associated formatting requirements for each. For example, for shell eggs: SAFE HANDLING INSTRUCTIONS: To prevent illness from bacteria: keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly.</p> <p>This must appear prominently and conspicuously, with the words "SAFE HANDLING INSTRUCTIONS" in bold type, on the PDP, the information panel, or on the inside of the lid of egg cartons. If this statement appears on the inside of the lid, the words "Keep Refrigerated" must appear on the PDP or information panel.</p> <p>Must be set off in a box by use of hairlines.</p>	No additional format requirements
Country of origin	Standard 1.2.11 – Country of Origin Labelling (Australia only) has requirements for the height of country of origin labelling for certain unpackaged foods (at least 9 mm in height, unless the food is in a refrigerated assisted service display cabinet, in which case it must be at least 5 mm in height).	Not mandatory	Required on imported food by the U.S. Customs and Border Protection (CBP) as authorized by the Tariff Act of 1930 and CBP regulations (19 USC 1304(a) and 19 CFR Part 134). Must be legible, in a conspicuous place.	Required in certain circumstances. No additional format requirements
Allergens	No additional format requirements	No additional format requirements	Can appear in the ingredient list or following a 'Contains' statement immediately after or adjacent to the ingredient list in a type size no smaller than that of the ingredient list	Must be highlighted in ingredient list. Food business decides on approach for highlighting e.g. font, style or background colour.

Labelling element	Australia and New Zealand	Canada	USA	EU
Nutrition Information Panel (NIP)	<p>Prescribed layout and format of the NIP by way of a table. Table borders, text case, the order nutrients are presented in the table and format for column headings are prescribed. There are no particular requirements for the orientation of the NIP on a label, or font/type size, and use of colour and contrast within the NIP.</p>	<p>Prescribed format including size of table, orientation, font, type size, line spacing, borders, colour, indents. 270 templates are available for different format specifications. Detailed requirements and guidance provided.</p>	<p>Must be on the PDP or information panel (if space permits, otherwise on an alternate panel that can be seen by the consumer).</p> <p>The nutrition information must be set off in a box by use of hairlines and shall be all black or one colour type, printed on a white or other neutral contrasting background whenever practical. Single easy to read type style is required. Letters should never touch.</p> <p>There are minimum type size requirements for certain information in the nutrition facts label and minimum spacing requirements between lines of text.</p> <p>Certain information must be highlighted by bold or extra bold type or other highlighting (reverse printing is not permitted as a form of highlighting) that prominently distinguishes it from other information. No other information shall be highlighted.</p> <p>Requirements for vertical or horizontal depending on space.</p>	<p>Nutrition declaration must be in tabular format if space permits, otherwise a linear format can be used. Nutrition declaration must be the same field of vision.</p>