

The logo for the Joint Food Regulation System is a horizontal bar with a green-to-dark-green gradient. On the left, there is a stylized map of the United Kingdom and Ireland composed of small white dots. On the right, there is a cluster of small white dots. The text "Joint Food Regulation System" is centered in white.

Joint Food Regulation System

## **Consultation Regulation Impact Statement:**

### ***Labelling of sugars on packaged foods and drinks***

## Contents

Executive summary .....	1
Statement of options.....	3
Introduction .....	5
Background.....	6
1. Statement of the problem .....	7
2. Objectives.....	17
3. Statement of options.....	19
Option 1: Status quo.....	19
Option 2: Education on how to read and interpret labelling about sugars.....	19
Option 3: Change to statement of ingredients.....	21
Option 4: Added sugars quantified in the NIP.....	23
Option 5: Advisory labels for foods high in added sugars.....	25
Option 6: Pictorial approaches to convey the amount or types of sugars in a serving of food . .....	28
Option 7: Digital linking to off label web-based information .....	30
4. Impact analysis (costs and benefits).....	36
5. Preferred option .....	38
6. Implementation and review .....	38
Attachment A .....	39
Attachment B.....	45

## Executive summary

### **Introduction**

This policy options paper has been prepared by the Food Regulation Standing Committee (FRSC) at the request of the Australia and New Zealand Ministerial Forum on Food Regulation (the Forum) to support consideration of regulatory and non-regulatory options for labelling of sugars on packaged foods and drinks for sale in Australia and New Zealand.

This paper seeks information from stakeholders about labelling of sugars on foods and drinks to allow FRSC to identify a preferred policy option and make a recommendation to the Forum in relation to sugar labelling. The Forum will consider FRSC's recommendation and make a decision on potential changes to food and drink labels in relation to sugars to enable consumers to make informed choices in support of the dietary guidelines. Implementation of the preferred option(s) (provided it is not to maintain the status quo) would be undertaken by Government or industry, depending on whether the implementation mechanism is regulatory or non-regulatory.

### **Statement of the problem**

Dietary Guidelines in relation to sugars in Australia and New Zealand recommend:

- *Australian Dietary Guidelines- Guideline 3: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol*
- *New Zealand Eating and Activity Guidelines- Eating Statement 2: Choose and/or prepare foods and drinks: with unsaturated fats, that are low in salt, with little or no added sugar, and that are mostly 'whole' and less processed.*

However, information about added sugars<sup>1</sup> on food labels in Australia and New Zealand is currently limited. The Forum has agreed to the following statement of the problem in relation to sugar labelling in Australia and New Zealand.

*Information about sugar provided on food labels in Australia and New Zealand does not provide adequate contextual information to enable consumers to make informed choices in support of dietary guidelines.*

This statement is based on evidence that:

1. Foods can contain a combination of added and naturally occurring sugars.
2. Foods high in added sugars may displace more nutritious foods in the diet and can contribute to dental caries, unhealthy weight gain and associated non-communicable diseases (NCDs).
3. To prevent these adverse health outcomes, dietary guidelines in Australia, New Zealand and internationally (including the World Health Organization (WHO) recommend limiting consumption of foods containing added sugars.

---

<sup>1</sup> For the purposes of this paper 'added sugar(s)' refers to any sugars-based ingredients added to foods by manufacturers during processing or manufacturing, or by consumers and cooks during food preparation or at the time of consumption. In this paper, 'added sugars' may include what are referred to as 'free sugars' such as honey.

4. Health and nutrition surveys in Australia and New Zealand report that over half of the surveyed populations are exceeding the recommended intakes for added sugars. While overweight and obesity and dental caries are not solely caused by excessive consumption of added sugar, these conditions place a significant burden on society in Australia and New Zealand, in terms of direct and indirect costs.
5. Food labelling is intended to enable consumers to make informed choices and support public health objectives.
6. Food labels currently provide limited information about which foods contain added sugars.
7. Consumer research in relation to understanding of sugars and food labelling suggests that:
  - a. consumers are confused about how much sugars they should be consuming;
  - b. consumers may not be able to determine whether a single product is high or low in sugars; and
  - c. consumers can be confused about what are added sugars and what types of sugars should be limited in the diet for good health.
8. There is limited other information available to consumers in Australia and Zealand about the added sugars content of foods (beyond food labels).
9. A range of activities are in place by Governments in Australia and New Zealand to address poor diet and high added sugars intakes. While these may help to motivate consumers to limit consumption of foods containing added sugars, the lack of information about the added sugars content of foods limits consumers' potential to follow this advice. Implementation of these Government initiatives may also be hampered by lack of information about the added sugars content of foods.

### **Objectives**

Enabling consumers to make informed choices and supporting public health objectives are two of the aims of the food regulatory system which are relevant to this work. FRSC proposes that the desired outcome of this work is:

*Food labels provide adequate contextual information about sugars to enable consumers to make informed choices in support of the dietary guidelines.*

FRSC considers that 'contextual information' in this situation relates to information that can support consumers to use and interpret a food label.

As a range of factors that are broader than food labelling influence consumer behaviour and dietary intakes, the desired outcome of this work relates to provision of information to support informed choices, rather than specifically reducing intakes of sugars, overweight and obesity, or dental caries.

## ***Statement of options***

FRSC has identified six options (in addition to the status quo) that are proposed to achieve the desired outcome. These options are not necessarily mutually exclusive and more than one option could be adopted. The proposed options are:

1. Status quo
2. Education on how to read and interpret labelling information about sugars
3. Change the statement of ingredients to overtly identify sugars-based ingredients
4. Added sugars quantified in the nutrition information panel (NIP)
5. Advisory labels for foods high in added sugar
6. Pictorial display of the amount of sugars and/or added sugars in a serving of food
7. Digital linking to off label web-based information about added sugar content.

Strengths and weaknesses of each of the proposed options (compared to the status quo) are discussed in the document. Implementation details, such as what particular types of sugars are considered to be ‘added sugars’ or how a food high in added sugars would be defined would be considered during the development and implementation of the preferred option(s) and are not considered in this paper. These are technical details which do not impact the policy options being proposed or the analysis of the proposed options.

It is expected that, for most of the proposed options, the implementation mechanism options are the same: voluntary, industry driven code-of-practice, government driven code of practice, and mandatory. The pros and cons of each of these approaches are summarised in the document.

## ***Costs and benefits***

The document considers the costs and benefits of the options, and also seeks input from stakeholders in relation to some of the costs and benefits of the proposed options.

Aside from the status quo, the benefit of the other proposed options would be providing consumers in Australia and New Zealand with additional contextual information about sugars to enable them to make informed choices in support of the dietary guidelines. This additional information may also have benefits to implementation of public health programs and campaigns which promote the dietary guidelines, as it may allow easier identification of foods to restrict in settings such as schools or hospitals.

Aside from the education option, the costs of the proposed approaches include the cost on businesses associated with changing the labels of their products. There may also be information costs if added sugars labelling is introduced at the expense of other food labelling elements such as the Health Star Rating (HSR). As the HSR focusses on more than just sugars, if it were removed from a label to make room for sugars labelling, the result could be that the food label contains less information to enable informed decisions in relation to the dietary guidelines. Introducing additional labelling about sugars may also cause consumers to focus too much on sugars labelling at the expense of other food labelling information.

### ***Preferred option and next steps***

Submissions received in response to this consultation RIS will be used to prepare a Decision RIS where FRSC will recommend a preferred option to the Forum.

The preferred option and implementation mechanism for this work will be the option that is likely to have the highest net benefit. Consideration of the preferred option and implementation mechanism will take into account the extent to which each option achieves the desired outcome, the feasibility of the proposed options, and the cost associated with implementing each option.

Depending on the volume and complexity of submissions received, it is expected that the Decision RIS with a preferred policy option and implementation mechanism will be presented to the Forum in late 2018.

Depending on the Forum's decision, industry or government (depending on the implementation mechanism) would then undertake to introduce the preferred policy option(s) (assuming that it is not to maintain the status quo).

## Introduction

### ***Purpose of this paper***

This policy options paper has been prepared by the Food Regulation Standing Committee (FRSC) at the request of the Australia and New Zealand Ministerial Forum on Food Regulation (the Forum) to support consideration of regulatory and non-regulatory options for labelling of sugars on packaged foods and drinks for sale in Australia and New Zealand.

This paper seeks information from stakeholders about labelling of sugars on foods and drinks to allow FRSC to identify a preferred policy option and implementation approach (i.e. regulatory or non-regulatory) in relation to sugars labelling and make a recommendation to the Forum. The Forum will consider FRSC's recommendation and make a decision on potential changes to food and drink labels in relation to sugars to enable consumers to make informed choices in support of the dietary guidelines. Depending on the Forum's decision, industry or government (depending on the implementation approach) would then undertake to introduce the preferred policy option(s).

This paper is based on the *Council of Australian Governments (COAG) Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies*<sup>2</sup>. Questions for stakeholders are provided at the end of each section. In providing responses to the questions, stakeholders are asked to provide evidence and references to support their statements. Responses to the questions will be used to develop a Decision Regulatory Impact Statement (DRIS) with a preferred option to recommend to the Forum.

### ***Scope and terminology***

The scope of this paper is limited to information about sugars on labels of packaged foods and drinks. Food and drinks not required to be labelled (e.g. a slice of cake served at a restaurant, or a soft drink served in a glass at a restaurant) are out of scope.

It is also relevant to note that in this paper, the following terminology:

- 'Food' refers to foods and drinks,
- 'Dietary Guidelines' refers to both the Australian Dietary Guidelines and New Zealand Eating and Activity Guidelines, unless otherwise specified
- 'Added sugars' refers to any sugars-based ingredients added to foods by manufacturers during processing or manufacturing, or by consumers and cooks during food preparation or at the time of consumption. In this paper, 'added sugars' may include what are referred to as 'free sugars'<sup>3</sup> such as honey. The exact specifications about which particular types of sugars are considered to be 'added sugars' or otherwise are not considered in this paper, but would be considered as part of the implementation of any future policy options. These are technical details which do not impact the policy options being proposed or the analysis of the proposed options.

---

<sup>2</sup> Council of Australian Governments (COAG) 2007. '[Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies](#)'.

<sup>3</sup> A term used by the World Health Organization which refers to all monosaccharides and disaccharides added to foods by the manufacturer, cook, or consumer, plus sugars naturally present in honey, syrups, and fruit juices.

## Background

New Zealand and Australia share a joint system for food labelling. In 2009, the Legislative and Governance Forum on Food Regulation (FoFR) (now Australia and New Zealand Ministerial Forum on Food Regulation (the Forum))<sup>4</sup> 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 (Labelling Logic)* was publically released in January 2011.

Recommendation 12 of *Labelling Logic* was '*That where sugars, fats or vegetable oils are added as separate ingredients in a food, the terms 'added sugars' and 'added fats' and/or 'added vegetable oils' be used in the ingredient list as the generic term, followed by a bracketed list (e.g. added sugars (fructose, glucose syrup, honey), added fats (palm oil, milk fat) or added vegetable oils (sunflower oil, palm oil)*'.

In response to Recommendation 12, the Forum asked Food Standards Australia New Zealand (FSANZ) to undertake a technical evaluation and provide advice on the proposed changes to the ingredient listing. The technical evaluation is available on the FSANZ website<sup>5</sup>.

In November 2016, the Forum considered the technical evaluation and advice prepared by FSANZ on Recommendation 12. In recognising the complexity of the issues involved, the Forum agreed to further investigate the labelling of sugars and fats/vegetable oils as two separate pieces of work.

In relation to sugars, the Forum requested FSANZ, in consultation with FRSC, prepare a program of work to further investigate labelling approaches for providing information on sugars.

The first stage of the program of work involved the development of three documents to understand the issue of sugars and sugars labelling in Australia and New Zealand. These documents<sup>6</sup> were:

- Literature review relating to sugars and food labelling
- Report on international sugars labelling approaches
- Policy Context paper on sugars in Australia and New Zealand

In light of findings in these reports, in November 2017 the Forum agreed that information about sugars provided on food labels does not provide adequate contextual information to enable consumers to make informed choices in support of dietary guidelines. The Forum agreed that the case has been made to continue to Stage 2 of the program of work which involves developing and evaluating options for sugars labelling. These options are presented in this paper for stakeholder consultation.

---

<sup>4</sup> The Forum is made up of Ministers responsible for food regulation from the Australia Federal Government; New Zealand; and Australian states and territories.

<sup>5</sup> Food Standards Australia New Zealand (FSANZ) 2016, *Technical Evaluation for Labelling Review Recommendations 12- Ingredient labelling of added sugars, added fats and added vegetable oils*. Available at: FSANZ website (accessed 23 April 2018)

<sup>6</sup> Food Regulation Secretariat 2018, *Sugar Labelling*, Available at: [Food Regulation website](#) (accessed 23 April 2018)



At the November 2017 meeting, the Forum also noted the range of existing complementary initiatives such as the five year review of the Health Star Rating (HSR) system, policy work underway on the labelling of fats and oils, and the work of the Healthy Food Partnership. The Forum stated that it intends to take a whole-of-diet, holistic approach to food labelling.

## 1. Statement of the problem

Dietary Guidelines in relation to sugars in Australia and New Zealand recommend:

- *Australian Dietary Guidelines*<sup>7</sup> - *Guideline 3*: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol
- *New Zealand Eating and Activity Guidelines*<sup>8</sup> - *Eating Statement 2*: Choose and/or prepare foods and drinks: with unsaturated fats, that are low in salt, with little or no added sugar, and that are mostly ‘whole’ and less processed.

However, information about added sugars on food labels in Australia and New Zealand is currently limited. The Forum has agreed to the following statement of the problem in relation to labelling of sugars on packaged foods in Australia and New Zealand.

*Information about sugar provided on food labels in Australia and New Zealand does not provide adequate contextual information to enable consumers to make informed choices in support of dietary guidelines.*

This statement is based on evidence that:

1. Foods can contain a combination of added and naturally occurring sugars.
2. Foods high in added sugars may displace more nutritious foods in the diet and can contribute to dental caries, unhealthy weight gain and associated non-communicable diseases (NCDs);
3. To prevent these adverse health outcomes, dietary guidelines in Australia, New Zealand and internationally (including the World Health Organization (WHO)) recommend limiting consumption of foods containing added sugars.
4. Health and nutrition surveys in Australia and New Zealand report that over half of the surveyed populations are exceeding the recommended intakes for added sugars. While overweight and obesity and dental caries are not solely caused by excessive consumption of added sugars, these conditions place a significant burden on society in Australia and New Zealand, in terms of direct and indirect costs;
5. Food labelling is intended to enable consumers to make informed choices and support public health objectives.
6. Food labels currently provide limited information about which foods contain added sugars.

---

<sup>7</sup> National Health and Medical Research Council, 2013. ‘*Eat For Health: Australian Dietary Guidelines*’, Canberra: Australian Government. Available at [Eat for Health website](#) (accessed 23 April 2018).

<sup>8</sup> Ministry of Health, 2015. ‘*Eating and Activity Guidelines for New Zealand Adults*’, Wellington: Ministry of Health. Available at: [Eating and Activity Guidelines for New Zealand Adults](#) (accessed 24 June 2016).

7. Consumer research in relation to understanding of sugars and food labelling suggests that:
  - a. consumers are confused about how much sugars they should be consuming,
  - b. consumers may not be able to determine whether a single product is high or low in sugars,
  - c. consumers can be confused about what are added sugars and what types of sugars should be limited in the diet for good health.
8. There is limited other information available to consumers in Australia and New Zealand about the added sugars content of foods (beyond food labels).
9. A range of activities are in place by Governments in Australia and New Zealand to address poor diet and high intakes of added sugars. While these may help to motivate consumers to limit consumption of foods containing added sugars, the lack of information about the added sugars content of foods limits consumers' potential to follow this advice. Implementation of these Government initiatives may also be hampered by lack of information about the added sugars content of foods.

The sections below elaborate on the evidence that has been drawn upon to develop this problem definition.

**Consultation question 1-** Do you support the statement of the problem presented on page 7? If you do not support this statement, please justify your reasons. If you would like to provide an alternate problem definition, please justify your statement with evidence.

### **1.1 About sugars**

Sugars are a type of carbohydrate. Sugars can occur naturally in foods and drinks such as fruits (i.e. fructose) and milk (i.e. lactose). Sugars can also be added to foods and drinks by manufacturers during processing or manufacturing (for example in the form of fructose, glucose or sucrose), or by consumers and cooks during food or drink preparation or at the time of consumption (e.g. adding table sugar to a tea or coffee). These types of sugars are commonly referred to as 'added sugars'<sup>9</sup>.

The use of added sugars by the manufacturing industry is not limited to sweetening a product. Sugars are added for a number of functional reasons which contributes uniquely to the food's appearance, texture and shelf-life<sup>10</sup>.

Foods and drinks can contain a combination of naturally occurring and added sugars. For example, flavoured milk contains sugars naturally occurring in the milk as well as sugars that have been added by the manufacturer. The term 'total sugars' refers to the total amount of sugars in a product, from both added sugars and naturally occurring sugars.

---

<sup>9</sup> The exact specifications about which sugars are considered to be 'added' or otherwise are not considered in this paper, but would be considered as part of the implementation of any future policy options.

<sup>10</sup> Sugar Research Advisory Service, n.d. 'The function role of sugar in food' Available at this link: [Sugar Research Advisory Service](#) (accessed 22 June 2017).

## **1.2 Health impacts of excessive sugars consumption**

Many processed foods and drinks that are high in added sugars are lower in micronutrients (vitamins and minerals) compared to whole or less processed foods<sup>11</sup>. Foods and beverages high in added sugars may displace more nutritious foods and beverages in the diet, and make it difficult for people to achieve the recommended intakes of micronutrients within their recommended energy intake<sup>12,13,14</sup>.

More evidence is needed to determine whether added sugars per se has a negative impact on health. A review of the available evidence commissioned by NSW Health in 2015 concluded there is clear evidence to be concerned about levels of sugars intake in the form of sugar-sweetened beverages but insufficient evidence to support concern regarding the added sugars content of otherwise nutritious foods (such as yoghurt, flavoured milk or breakfast cereal), beyond their contribution to overall kilojoule intake<sup>15</sup>. It is important to note that most of this evidence is from observational studies.

## **1.3 Sugar intake recommendations in Australia, New Zealand and internationally**

The 2013 Australian Dietary Guidelines<sup>16</sup> and 2015 Eating and Activity Guidelines for New Zealand Adults<sup>17</sup> recommend limiting intakes of foods and drinks containing added sugars (as well as saturated fats, added salt and alcohol). These Dietary Guidelines provide examples of types of food and drinks high in added sugars, however, they do not provide a quantified limit on the amount of added sugars suitable for the whole population.

The WHO advises that consuming too much added sugars can lead to weight gain, which in turn increases the risk of NCDs such as heart disease, type 2 diabetes, stroke and some cancers<sup>18</sup>.

The WHO 2015 *Sugars Intake for Adults and Children*<sup>19</sup> guideline provides a 'strong' recommendation that added sugars should account for less than 10% of total energy intake (approx. 50 grams/ 12 teaspoons<sup>20</sup>) for the prevention of unhealthy weight gain and dental caries.

---

<sup>11</sup> Institute of Medicine (IOM) of the National Academies 2005. *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients)*, Chapter 6: *Dietary Carbohydrates: Sugars and Starches*, Washington, DC. Available here: [the National Academies Press](#) (accessed 17 June 2016)

<sup>12</sup> World Health Organization, 2015. *Guideline: Sugars intake for adults and children*. Available at: [World Health Organisation \(accessed 20 June 2016\)](#).

<sup>13</sup> United States Food and Drug Administration (USFDA) 2014. *Food Labelling: Revision of the Nutrition and Supplement Facts Labels*: Available at [Federal Register, the Daily Journal of the United States Government](#) (accessed 17 June 2016).

<sup>14</sup> Mok, A, Ahmad R, Rangan A & Louie, JCY 2018, 'Intake of free sugars and micronutrient dilution in Australian adults', *Am Clin Nutr*, 2017: 94-104

<sup>15</sup> Boylan S & Mihrshahi S, 2015. *Sugar intake and health outcomes – A Rapid Evidence Review*. Available at [Physical Activity Nutrition Obesity Research Group](#) (accessed 22 August 2016).

<sup>16</sup> National Health and Medical Research Council, 2013. *Eat For Health: Australian Dietary Guidelines*, Canberra: Australian Government. Available at [Eat for Health website](#) (accessed 23 April 2018).

<sup>17</sup> Ministry of Health, 2015. *Eating and Activity Guidelines for New Zealand Adults*, Wellington: Ministry of Health. Available at: [Eating and Activity Guidelines for New Zealand Adults](#) (accessed 23 April 2018).

<sup>18</sup> World Health Organization, 2015. *Guideline: Sugars intake for adults and children*. Available at: [World Health Organisation - Guideline: Sugars intake for adults and children \(accessed 20 June 2016\)](#).

<sup>19</sup> 1 teaspoon refers to a level teaspoon of white sugar

<sup>20</sup> Based on a daily energy intake of 8,000kJ energy intake

The WHO guideline makes an additional ‘conditional’ recommendation that intake of added sugars at less than 5% of total energy intake (approx. 25 grams / 6 teaspoons) would provide additional health benefits, particularly in relation to dental caries. These recommendations were based on the totality of evidence reviewed regarding the relationship between added sugars intake and body weight (low and moderate quality evidence) and dental caries (very low and moderate quality evidence).

In 2015, the UK Scientific Advisory Committee on Nutrition advised that the UK population’s average intake of added sugars should not exceed 5% of total energy intake based on evidence on the effect of added sugars on the risk of dental caries and on total energy intake<sup>21</sup>.

The *2015-2020 Dietary Guidelines for Americans*<sup>22</sup> recommend a limit for added sugars intake of less than 10% of total energy for adults and children. This is justified by the explanation that, for most people’s daily energy (kilojoule) requirements, there are not enough kilojoules available after meeting food group needs to consume 10 percent of energy from added sugars and 10 percent of energy from saturated fats and still stay within energy limits<sup>23</sup>.

In Europe, following a request from Nordic countries, the European Food Safety Authority will provide scientific guidance on the daily intake of added sugars in food by early 2020. The aim of this work is to provide a science-based cut off value for the daily consumption of added sugars that is not associated with adverse health effects. The assessment will consider the adverse health effects of added sugars on the general population in regards to body weight, glucose intolerance and insulin sensitivity, type-2 diabetes, cardiovascular risk factors, as well as dental caries<sup>24</sup>.

#### **1.4 Sugars intakes and associated health outcomes in Australia and New Zealand**

The latest data available indicates that on average, over half of Australians and New Zealanders exceeded the WHO’s recommendations in relation to the consumption of added sugars in 2011-12 and 2008-09 respectively<sup>25, 26, 27</sup>. Adolescents in particular were the highest consumers of added sugars in both countries, and compared to other age groups, adolescents were most likely to exceed the WHO recommendations. Sugar-sweetened beverages were the main contributor to added sugars intakes in the Australia population, and no analysis of the main contributors of added sugars in the New Zealand population is available.

---

<sup>21</sup> Scientific Advisory Committee on Nutrition 2015. ‘*Carbohydrates and Health*’. Available at: [Scientific Advisory Committee on Nutrition: Carbohydrates and Health](#) (Accessed 21 July 2016).

<sup>22</sup> U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015. ‘*2015–2020 Dietary Guidelines for Americans*’. Available at: [Australian Government Department of Health](#) (accessed 22 June 2017).

<sup>23</sup> Calorie is a unit of energy and is used in the United States. Australia and New Zealand use kilojoules to refer to energy from food.

<sup>24</sup> European Food Safety Authority (EFSA) 2017. ‘*EFSA to give advice on the intake of sugar added to food*’ Available at: [EFSA website](#) (Accessed 14 July 2017).

<sup>25</sup> Australian Bureau of Statistics, 2016. ‘*Australian Healthy Survey: Consumption of added sugars, 2011-12*’. Available at: [Australian Bureau of Statistics](#) (accessed 23 April 2018).

<sup>26</sup> Nettleton A, 2016. ‘*Estimating added sugars intake in New Zealand*’ [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018)

<sup>27</sup> Kibblewhite RL, 2016. ‘*Estimating free sugars intake in New Zealand*’ [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018).

An analysis of changes in added sugars consumption in Australia between 1995 and 2011-12<sup>28</sup> indicates that the contribution of added sugars to total energy intakes in the Australian population has decreased. This has largely been driven by reductions in children's consumption of sugar-sweetened beverages. Equivalent trend data are not available for New Zealand.

Exceeding the WHO's recommendations for added sugars consumption has been associated with unhealthy weight gain and dental caries. While causes of both these conditions are complex and do not relate solely to added sugars consumption, these conditions place a significant burden on the Australian and New Zealand community in terms of direct and in-direct costs<sup>29</sup> and health impacts<sup>30,31</sup>.

The prevalence of overweight and obesity has increased in both New Zealand and Australia and over the last ten to twenty years respectively, and now affects around two-thirds of the population in these countries. For children, rates of overweight and obesity have remained stable in recent years. Overweight and obesity disproportionately affects rural and remote populations, the socio-economically disadvantaged and Indigenous populations<sup>32, 33</sup>.

Years of healthy life lost due to death and disability associated with overweight and obesity has increased in both countries, and now represents the leading risk factor for total disease burden in both Australia and New Zealand<sup>34, 35</sup>.

---

<sup>28</sup> Australian Bureau of Statistics 2017, '*Consumption of added sugars- A comparison of 1995 to 2011-12*.'

Available at: [Australian Bureau of Statistics](#) (accessed 23 April 2018)

<sup>29</sup> PriceWaterhouseCooper, 2015. '*Weighing the cost of obesity: A case for action*'. Available at: [PwC](#) (accessed 3 April 2018)

<sup>30</sup> Institute for Health Metrics and Evaluation, 2016. '*GBD Compare Viz Hub*'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

<sup>31</sup> Institute for Health Metrics and Evaluation, 2016. '*GBD Compare Viz Hub*'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

<sup>32</sup> New Zealand Health Ministry of Health, 2016. '*Annual Update of Key Results 2016/17: New Zealand Health Survey*'. Available at [New Zealand Ministry of Health](#) (accessed 24 April 2018).

<sup>33</sup> Australian Bureau of Statistics, 2015. '*National Health Survey: First Results, 2014-15*'. Available at [Australian Bureau of Statistics](#) (accessed 22 June 2017).

<sup>34</sup> <sup>34</sup> Institute for Health Metrics and Evaluation, 2016. '*GBD Compare Viz Hub*'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

<sup>35</sup> Institute for Health Metrics and Evaluation, 2016. '*GBD Compare Viz Hub*'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

## **Costs of obesity and dental caries**

The cost of obesity on society in Australia has been estimated to be \$8.6 billion (in 2014-15 Australian dollars). This total figure includes \$3.8 billion (AUD) in direct costs (e.g. clinical services, hospital care, pharmaceuticals) and \$4.8 billion (AUD) in indirect costs (absenteeism, presentism, forgone taxes)<sup>36</sup>. The consultant PricewaterhouseCoopers (PwC) estimates that if no further action is taken to slow the growth of obesity, there will be an additional 2.4 million more obese people in 2025 than in 2011-12 and \$87.7 billion (AUD) in additional costs due to obesity to society over ten years (2015-16 to 2024-25). Comparable data on the cost of obesity in New Zealand are not available.

According to the Australian Dental Association, consumption of sugars is the main contributor to dental caries<sup>37</sup>. Dental decay is estimated to affect up to five million people in Australia each year<sup>38</sup>. In 2015-16, an estimated \$9.9 billion (AUD) was spent on oral health<sup>39</sup> in Australia. In New Zealand, dental caries remain the most prevalent chronic (and irreversible) disease; however, the cost impact of this condition has not been quantified.

The focus of this work is in relation to providing information on food labels to enable consumers to make informed choices and it is not seeking to directly address the prevalence and costs of obesity and dental caries in Australia and New Zealand. However, as excessive intake of added sugars is associated with overweight and obesity and dental caries, the significant economic burden of these conditions demonstrates the importance taking action.

Section 1.9 of this document discusses the broader actions taken by Governments in Australia and New Zealand to address excessive sugar intakes and poor diets.

More detailed discussion of added sugar consumption, dental caries and overweight and obesity in Australia and New Zealand is available at [Attachment A](#).

### **1.5 Labelling for informed choice**

Food labels are intended to enable consumers to make informed choices about the foods they purchase and consume. Food labelling can also support public health objectives. However, a combination of factors determine whether food labelling is effective for enabling informed choice. Labelling firstly needs to be noticed by the consumer. They then need to understand the information being communicated before being able to apprise the information in a meaningful manner according to their own needs and wants. In the case of labelling being effective in supporting consumers to make choices consistent with dietary guidance, in the first instance consumers need to be motivated to use the label to choose healthier foods.

---

<sup>36</sup> PriceWaterhouseCooper, 2015. 'Weighing the cost of obesity: A case for action'. Available at: [PwC](#) (accessed 3 April 2018)

<sup>37</sup> Australian Health Policy Collaboration and the Australian Dental Association, 2018. 'Australia's Oral Health Tracker Technical Paper'. Available at: [Oral Health Tracker](#) (accessed 3 April 2018).

<sup>38</sup> Australian Institute of Health and Welfare (AIHW) 2012. 'Child Dental Health Survey Australia 2007 – 30 year trends in child oral health'. Available at [Australian Institute of Health and Welfare](#) (accessed 22 August 2016).

<sup>39</sup> Australian Health Policy Collaboration and the Australian Dental Association, 2018. 'Australia's Oral Health Tracker Technical Paper'. Available at: [Oral Health Tracker](#) (accessed 3 April 2018).

## **1.6 Current labelling requirements in relation to sugar**

Currently food labels do not provide adequate contextual information about sugars. Specifically information about added sugars on food labels is limited, which limits consumers' ability to make informed choices in relation to the recommendations about added sugars in the dietary guidelines.

The section below details what information is provided about sugars on food labels. These requirements are under the Australia New Zealand Food Standards Code (the Code), unless specified otherwise.

### **Mandatory labelling**

#### **Statement of Ingredients**

Standard 1.2.4 – Information Requirements – statement of ingredients requires ingredients to be listed in descending order by ingoing weight. This means that when the food or drink was manufactured, the first ingredient listed contributed the largest amount and the last ingredient listed contributed the least. For example, if sugar or a sugar containing ingredient, such as honey, is listed near the start of the list the product contains a greater proportion of this ingredient.

In listing the ingredients, manufacturers must describe the ingredient by a name that it is commonly known, or a name that describes the true nature of the ingredient, or a generic name specified in the Code. In relation to sugar, the generic name 'sugar' is permitted to be used for various forms of sucrose. The generic name 'sugars' is not permitted.

Anecdotally, consumers may use the ingredient list to make healthy food choices. For example, a common rule-of-thumb recommended by nutrition professionals is to avoid foods that contain sugars, salt or fats in the first three ingredients<sup>40, 41</sup>.

A consumer could use the statement of ingredients to identify foods that contain added sugars (given that any sugar-based ingredient in the ingredient list would be an 'added sugar'), however, this requires the consumer to be able to recognise sugars-based ingredients in the statement of ingredients, and these can be declared under many different names.

#### **Nutrition Information Panel (NIP)**

Most food labels are required to carry a NIP which provides the average quantity of energy, protein, fat, saturated fat, carbohydrate, sugars and sodium in the food (per serving and per 100g), as well as any other nutrient about which a claim has been made.

A food's total sugar content is reported in the NIP as part of the total carbohydrates and is also listed separately. Sugars are defined as monosaccharides and disaccharides for the purposes of the NIP declaration and therefore the amount of sugars in the NIP includes sugars naturally present, such as those found in fruit or milk, as well as added sugars (i.e. total sugars). Added sugars are not required to be quantified separately in the NIP.

---

<sup>40</sup> Dietitians Association of Australia, 2015. 'Understanding Food Labels'. Available at: [Australia's Healthy Weight Week](#) (accessed 20 June 2017).

<sup>41</sup> Australian Government Department of Health, n.d. 'Reading food labels'. Available at: [Australian Government Department of Health](#) (accessed 5 August 2016)

## **Voluntary labelling**

### **Percentage Daily Intake**

Percentage daily intake (%DI) may be voluntarily provided in the NIP. The %DI expresses the percentage of the daily intake of energy from selected nutrients, including sugars, obtained from consuming one serving of the food (the serving size is established by the manufacturer). For total sugars, the reference value for calculating the %DI is 90g per day, which is 17.5% of daily energy<sup>42</sup>. Therefore, as an example, a food that contains 45g of total sugar per serving may state that the product contains 50% of the Daily Intake for total sugar. The %DI values are based on a single set of average reference values for adults, and as such, are not directly applicable to individual needs or specific sub-groups of the population such as children.

The %DI reference value for sugars was sourced from the following statement in the 2003 Australian Dietary Guidelines<sup>43</sup>: *There is no evidence that, for most Australians, consumption of up to 15-20 per cent of energy as [total] sugars is incompatible with a healthy diet.* The mid-point of the range (17.5%) was used as the basis of the reference value.

There is currently no reference value for added sugars in the Code.

### **Nutrition content claims**

Nutrition content claims are voluntary claims about the content of certain nutrients or substances in a food, such as 'no added sugar', 'low sugar' or '% sugar free'. In relation to sugars, these claims are permitted under the Code if the product meets particular conditions about its sugar content, for example, a 'low sugar' claim and a '% sugar free' claim can be made if the food contains no more than 5g sugars per 100g of solid food, or no more than 2.5g sugars per 100mL of liquid food.

There is currently no specific definition of 'added sugars' in the Code. Conditions set in the Code for making a 'no added sugars' claim<sup>44</sup>, are that the food contains no added 'sugars' as defined in the Code (monosaccharides and disaccharides) as well as other products such as starch hydrolysate and maltodextrin, and no added honey, malt and malt extracts, concentrated fruit juice or deionised fruit juice (with some exceptions in relation to these juices). The Code does not have any specific provisions for 'sugar free' claims; these are permitted and regulated under consumer and fair trading laws.

### **Health Star Rating (HSR) System**

The HSR system is not implemented under the Code. It is a voluntary front-of-pack food labelling system that is intended to make it easier for consumers to choose healthier packaged foods and drinks. It uses a star rating scale of half a star to five stars to rate the overall nutrient profile of packaged foods. For manufacturers that choose to adopt the HSR system, a product's star rating is presented on the front of the label for packaged products.

---

<sup>42</sup> Based on a reference value of 8,700kJ for daily energy

<sup>43</sup> National Health and Medical Research Council, 2003. 'Dietary Guidelines for Australian Adults' Available at: [National Health and Medical Research Council](#) (Accessed 20 June 2017).

<sup>44</sup> The first definition of sugars in the Code is for NIP purposes.



A HSR calculator and style guide and other materials to support industry to adopt the HSR are available on a Government website. The HSR algorithm is based on the balance of multiple nutrients, including sugars; it uses the total sugars content of a food, rather than added sugars. Amongst other things, this is based on the need for alignment with the NIP for packaged foods relating to total (not added) sugars, the lack of methodology to accurately analyse added sugars in processed foods, and the potential burden on industry associated with reporting added sugars content. To recognise, and in some way compensate for, the naturally occurring sugars in milk and milk products, dairy beverages and the dairy food category are re-scaled in the HSR scheme.

The HSR permits an optional nutrient icon where information about the energy content of a product, as well as the levels of saturated fat, sodium, and total sugars are displayed.

The five-year review of the HSR system is underway and it is expected that the review report will be provided to the Forum in June 2019. The issue of whether the algorithm could include added sugars rather than total sugars has been raised in this review.

#### Voluntary declaration of added sugar content

Observation of products available at the supermarket has identified that some manufacturers are choosing to voluntarily state the amount of added sugars in their products, for example, *Milo Active Go* (200mL tetra pack) states underneath the NIP that ‘over half the total sugars are naturally occurring in the milk with just over 1tsp (4.7g) of added table sugar per pack’. It is not known what proportion of manufacturers have adopted this practice.

The process for calculating and presenting a food’s added sugars content is not specified in the Code. As a consequence, there may be differences between manufacturers’ estimates of a food’s added sugars content due to different calculation methods, and differences in what particular types of sugars are counted as ‘added sugars’.

<p><b>Consultation question 2:</b> Are you aware of any form of information about added sugars that is provided on food labels in addition to those identified above?</p>
---

### **1.7 Consumer knowledge, attitudes and behaviours relating to sugars**

FSANZ has undertaken a literature review to examine consumer knowledge, attitudes and behaviours relating to sugars in foods as presented on food labelling<sup>45</sup>.

The literature review reported that consumers in Australia and New Zealand seek out sugars information as one of the first elements they look at on a food label. Using the mandated information on food labels in Australia and New Zealand, consumers in these countries are generally able to identify which of two products is the lower in total sugars. However international research reports that when examining a single product, consumers had difficulty in determining whether a single product was high or low in sugars.

---

<sup>45</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 24 April 2018)

The evidence suggested that additional interpretive or contextual information (such as daily recommendation for sugars, or advice about whether the product's sugars content is high or low) on the label, may offer consumers further assistance in understanding food labels and making decisions about purchasing and/or consuming particular products.

The literature review also identified that consumers may be confused about the different names for sugars-based ingredients and have trouble deciding whether these are 'added' and 'natural' sugars. Sugars that are derived from sources such as honey and fruit are often considered to be 'natural sugars', however, consumers are unsure how to classify sugars with more 'technical' names such as isoglucose. Other research reported that consumers considered 'fruit sugar' to be healthier than 'sugar' suggesting that the source of the sugar may play a role in its perceived healthfulness.

Even though the majority of consumers understand that a food carrying a 'no added sugar' claim may contain naturally occurring sugars, the claim can lead some consumers to incorrectly conclude that the food does not contain any sugars.

Other research reviewed reported that consumers generally understood that sugar-sweetened beverages and other discretionary foods are high in sugars, but may underestimate the total amount of sugars in these products. Finally, despite the general lack of evidence of impact of sugars labelling on behaviour, in the case of sugar-sweetened beverages, there is evidence that some labelling interventions may reduce purchase intentions for, and actual purchases of, sugar-sweetened beverages. However, intention to consume those foods often depends on attitudes and priorities relating to health.

### **1.8 Other sources of information about added sugar content of foods in Australia and New Zealand**

There is currently limited information about which foods contain added sugars available to consumers. The dietary guidelines consumer resources provide examples of some foods containing added sugars, however, this is not an extensive list and is generic (e.g. cakes, biscuits, sweetened soft drinks and cordials, honey, some sauces) which does not support consumers to compare products within the same category to identify varieties which are lower in added sugars.

Another source of information on the added sugar content of foods is a dataset developed by FSANZ. FSANZ estimated the added sugars content of foods consumed by participants in the 2011-12 Australian Health Survey for the purposes of analysing survey data, and a spreadsheet<sup>46</sup> with this information is available free online<sup>47</sup>. However, as this work was undertaken for survey analysis purposes, the data represent food composition and availability in 2011-12 and the database is not updated to reflect trends in the Australian food supply. This database is also generic and generally does not capture variations between brands. The database is available on a technical part of the FSANZ website, and because it is not intended to be a consumer resource, it is not presented in a consumer-friendly format.

---

<sup>46</sup> Food Standards Australia New Zealand, 2018, 'AUSNUT 2011-13 food nutrient database' Available at: [AUSNUT database](#) (accessed 18 April 2018)

<sup>47</sup> The process used to develop this database is described at: [Determining the amount of added sugars and free sugars in foods listed in the AUSNUT 2011-13 dataset.](#)

While some foods in the Australian database may also be sold in New Zealand, there are no other sources of information about added sugars content of foods available for the New Zealand food supply.

**Consultation question 3:** Are you aware of other sources of information (publically available or otherwise) on the added sugars content of foods available in Australia and New Zealand, beside those described above?

### **1.9 Current actions that are underway to support reducing sugar intakes**

The FSANZ literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling found that there is little evidence to suggest that nutritional labelling changes behaviour, and individual factors such as health consciousness and personal motivation are key drivers of consumer use of nutritional labelling and consumption behaviours<sup>48</sup>.

In recognition of this evidence, FRSC notes that a range of other actions are underway across all levels of Government in Australia and New Zealand to support consumers to limit consumption of foods containing added sugars. These activities are detailed at [Attachment B](#). These actions include working with the food industry to reduce sugars content of foods (on a voluntary basis), providing education and advice about the recommendations in dietary guidelines and the advice to reduce consumption of foods high in added sugars (many are particularly focussed on soft drinks) and restricting access to foods that are high in /contain added sugars in settings such as schools, early childcare and health facilities.

The education and communication aspects of the actions outlined above may help increase consumers' motivations and skills to better use food labels to make informed food choices in relation to the dietary guidelines. However, with the lack of information available on food labels and other sources about added sugars, consumers' ability to implement the recommendations in the dietary guidelines is limited.

Food labelling can also facilitate the implementation of the actions described in [Attachment B](#). For example, labels can be used to identify which foods can and cannot be sold in settings such as schools, early childcare and health facilities and labels can also provide the opportunity for food manufactures to communicate the results of their efforts in reducing added sugars content of their products. However, as food labels currently provide limited information about added sugars, the potential for food labels to support the implementation of these initiatives is constrained.

## **2. Objectives**

Under the *Overarching Strategic Statement for the Food Regulatory System*, the aims of the food regulatory system are:

- Protecting the health and safety of consumers by reducing risks related to food;
- Enabling consumers to make informed choices about food by ensuring that they have sufficient information and by preventing them from being misled;

---

<sup>48</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 24 April 2018)

- Supporting public health objectives by promoting healthy food choices, maintaining and enhancing the nutritional qualities of food and responding to specific public health issues; and
- Enabling a strong sustainable food industry to assist in achieving diverse, affordable food supply and general economic benefit.

Added sugars labelling is related to the second and third objectives of the Food Regulatory System.

The Overarching Strategic Statement recognises that food labelling policy is complex, and to support decision making in the area of food labelling, the aims of the food regulatory system have been translated into the following risk-based issues hierarchy:

1. Food safety
2. Preventive health
3. Consumer values

Preventive health issues include the indirect, long term impacts on health and particularly include chronic disease and overweight and obesity. Providing more contextual information about sugars, specifically added sugars on the label may assist consumers to identify foods which contain added sugars, which the dietary guidelines recommended to limit consumption of for a healthy diet and the prevention of overweight and obesity and dental caries.

In light of the statement of the problem described at Part 1, the objectives of the food regulatory system and the Forum's desire to take a whole-of-diet, holistic approach to food labelling, FRSC proposes that the desired outcome of this work is as follows.

*Food labels provide adequate contextual information about sugars to enable consumers to make informed choices in support of the dietary guidelines.*

FRSC considers that 'contextual information' in this situation relates to information that can support consumers to use and interpret a food label.

As a range of factors that are broader than food labelling influence consumer behaviour and dietary intakes, the desired outcome of this work relates to provision of information to support informed choices, rather than specifically reducing intakes of added sugars, overweight and obesity, or dental caries. Consumers' health interest and nutrition knowledge influence their motivation to use a food label to make food choices, and food labelling alone does not necessarily result in consumer behaviour change<sup>49</sup>. However, if consumers do make informed food choices that are consistent with the dietary guidelines, reduced consumption of added sugars and associated better health outcomes can be expected.

**Consultation question 4:** Do you agree with the desired outcome of this work proposed above? If not, please suggest an alternate desired outcome and justify your suggestion.

<sup>49</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 24 April 2018)

### 3. Statement of options

FRSC has identified six options (in addition to the status quo) that are proposed to achieve the desired outcome. These options are not necessarily mutually exclusive and more than one option could be adopted.

The status quo and each of the six proposed options are described below. Strengths and weaknesses are described in comparison to the status quo.

#### ***Option 1: Status quo***

Description: The status quo relating to labelling of sugars is described in detail in Part 1.6 of this document. Most food labelling focusses on total sugars, and there are limited labelling options currently relating to added sugars.

Mandatory labelling requires: ingredients (including sugars-based ingredients) to be listed in descending order by ingoing weight, and, the quantification of average total sugars (but not added sugars) per serve and per 100g in the NIP.

Voluntary labelling aspects include: percent daily intake (for total sugars), nutrition content claims (which can include ‘no added sugars’ claims), HSR (which includes total sugars in the calculator, but not added sugars) and manufacturers may also voluntarily quantify the added sugars content of their foods on the label.

#### ***Option 2: Education on how to read and interpret labelling information about sugars***

Description: This option proposes to provide consumers with education on how to read and interpret current labelling information about sugars. This option would not result in any changes to current food labels.

This option aims to address the policy issue by reducing consumer confusion in relation to information about sugars on food labels. This may improve consumers’ ability to use and interpret food labels in order to make informed food choices in support of the dietary guidelines. Education may also provide contextual information to help consumers understand sugars, particularly added sugar, in relation to the broader dietary guidelines.

This option could be implemented through a multi-media campaign on labelling of sugars that explains how to use labels to identify foods lower in added sugar, with links to existing education on sugars and labels. Consideration would need to be given to the modes and duration of education that would be required to elicit a sufficient reduction in consumer confusion to make this option worthwhile.

Rationale: Consumer research provides mixed evidence regarding whether Australian and New Zealand consumers can use current labelling to make informed choices with respect to sugars. While consumers are able to compare products to identify which is lower in sugars, international evidence indicates that consumers are not able to use abstract information such as grams of sugars listed on a label to evaluate whether a food is high or low in sugars. Consumer research also suggests that consumers are confused about what are ‘added sugars’ and can mistakenly consider that more

‘natural’ sugars such as honey are not ‘added sugars’ (and therefore may not consider that recommendations to limit consumption of foods containing added sugars apply). This option aims to address the above consumer misunderstanding through education.

Consumer research also indicates that consumers with greater nutrition knowledge and health interests are more motivated to use nutrition labels in relation to sugars. This option also has the potential to improve consumers’ nutrition knowledge and health interest in order to motivate them to use current labelling information about sugars to make informed food choices.

Current examples: In Australia, consumer education about food labels is currently available through the Australian Government *Eat for Health* website that hosts the Australian Dietary Guidelines<sup>50</sup>. This website provides information on how to read food labels, including both mandatory and voluntary elements. In relation to the Nutrition Information Panel, specific information is provided on added sugars: ‘If sugar content per 100g is more than 15g, check that sugar (or alternative names for added sugar) is not listed high on the ingredient list.’

FSANZ provides information for consumers on its website, covering topics on the ingredients list, nutrition information panel and health and nutrition content claims<sup>51</sup>. Some specific information on sugars is provided to guide consumers, for example, ‘if sugar is listed near the start of the [ingredients] list the product contains a greater proportion of this ingredient.’

Various states and territories provide further information for consumers, such as the Victorian Better Health Channel webpage on food labels, which lists many types of added sugars to look for<sup>52</sup>, and the Good Habits for Life – Sugar Swap Challenge<sup>53</sup> in the Australian Capital Territory, which provides online resources for families to recognise added sugars in their food and drinks.

Other consumer information, with varying degrees of detail, is provided by nutrition-focused organisations such as the Dietitians Association of Australia<sup>54</sup> and the National Heart Foundation of Australia<sup>55</sup>. In New Zealand, consumer information that provides specific advice regarding sugars on labels is available through the Health Navigator website<sup>56</sup> the Ministry of Health’s Healthy Eating, Active Living resource<sup>57</sup>, the Health Promotion Agency’s resources entitled ‘*How much sugar do you drink?*’ and ‘*What to look for on a food label*’<sup>58</sup>.

---

<sup>50</sup> Australian Government Department of Health and National Health Medical and Research Council, 2018. ‘*How to understand food labels*’. Available at: [Eat for Health website](#) (accessed 24 April 2018).

<sup>51</sup> Food Standards Australia New Zealand, 2015. ‘*Labelling*’. Available at: [FSANZ website](#) (accessed 24 April 2018)

<sup>52</sup> Victorian State Government Better Health Channel, 2013. ‘*Food labels*’. Available at: [Better Health Channel](#) (accessed 24 April 2018)

<sup>53</sup> ACT Government, n.d. ‘*Good Habits for Life: Sugar Swap Challenge Brochure*’. Available at: [Good Habits for Life website](#) (accessed 24 April 2018).

<sup>54</sup> Dietitian’s Association of Australia, 2018. ‘*Food Labels*’. Available at: [DAA website](#) (accessed 24 April 2018)

<sup>55</sup> National Heart Foundation of Australia, n.d. ‘*Food Labels*’. Available at: Heart Foundation website (accessed 24 April 2018)

<sup>56</sup> Health Navigator New Zealand, 2018. ‘*Using Food Labels*’. Available at: [Health Navigator website](#) (accessed 24 April 2018).

<sup>57</sup> New Zealand Ministry of Health and Health Promotion Agency 2015, ‘*Healthy eating, active living*’. Available at [HealthEd website](#) (accessed 26 April 2018)

<sup>58</sup> New Zealand Health Promotion Agency, n.d. ‘*Nutrition and Activity*’. Available at [New Zealand Health Promotion Agency website](#)

### Strengths

- An education campaign could increase consumer understanding of sugars labelling with regard given to dietary guidelines, without the need for changes to current labels.
- May promote greater awareness of nutritional information resulting in improved consumer motivation and understanding of food labelling.

### Weaknesses

- The impact on consumers' ability to select foods lower in added sugars may remain limited due to information about added sugars not being available on food labels.
- Likely to have a limited reach (not all consumers will necessarily be exposed to the education campaign).
- Likely to be time limited: education may help improve understanding of sugars labelling for a short period only (while the campaign is running).
- May place undue focus on sugars relative to the rest of the dietary guidelines recommendations. This could be balanced if part of a broader education campaign about dietary guidelines (however, the advice on sugars labelling may also be relatively lost amongst other information).
- Education campaigns are likely to be a cost borne solely by Government.

**Consultation question 5:** How effective would this option be in addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 6:** How would this option impact you? Please provide impacts and cost relevant to you.

### ***Option 3: Change to statement of ingredients***

Description: This option proposes to change the statement of ingredients to overtly identify sugars-based ingredients. Sugars-based ingredients added to a food are 'added sugars'.

This option aims to address the policy issue by overtly indicating which ingredients are added sugars so that consumers can clearly identify foods containing added sugars and make informed choices in relation to the recommendations in the dietary guidelines.

There are a number of possible approaches to this option, including:

- *Bracketed list:* Indicating the sugars-based ingredients through a term such as "sugars" followed by a bracketed list of individual sugars-based ingredients. The bracketed list and the ingredients within the bracketed list would be listed in descending order of ingoing weight.
- *Asterisked or emboldened:* Indicating the sugars-based ingredients through using an asterisk or emboldening the individual sugars-based ingredients in the list. Ingredients would remain listed in decreasing order of ingoing weight.

Rationale: Under the status quo, the statement of ingredients requires the individual ingredients in a food to be listed in descending order of ingoing weight. However, identifying the sugars-based ingredients in the statement of ingredients requires an awareness and knowledge of the many different names that can be used to describe individual sugars-based ingredients. This option would overtly identify individual sugars-based ingredients within the statement of ingredients so that consumers would not need this detailed level of knowledge and can access the information regarding sugars-based ingredients directly.

For the first approach above, placement (in descending order of ingoing weight) of the bracketed list in the statement of ingredients may assist consumers to determine the relative contribution of added sugars in the context of other ingredients in that food.

Current examples: Grouping of sugars-based ingredients in the ingredient list has been implemented in Canada with a five year transition period ending in 2021.

#### Strengths

- Identification of sources of sugars in the statement of ingredients may assist consumers to determine the relative contribution of added sugars in comparison to other ingredients in that food.
- Has the capacity to reduce confusion that consumers may have about various names used for sugars-based ingredients and enhances their ability to identify added sugars at the point of sale.
- Consumers report having an interest in sugars and may be receptive to additional labelling<sup>59</sup>.

#### Weaknesses

- Would require analysis of implications in relation to existing labelling requirements – may be difficult to implement or conflict with existing requirements such as conditions for ‘no added sugar’ claims.
- May result in confusion or misleading information for consumers due to changes in descending order of ingredients or declaration of total sugars in the NIP – this would require further analysis.
- If the asterisks or emboldening option is implemented, may cause confusion where food producers and industry use emboldening or asterisks to indicate other qualities, for example identification of allergens.
- Technical issues of defining sugars-based ingredients/added sugars.
- Impact on industry to implement additional labelling, including cost associated with label changes and possibly use of additional space on package.

**Consultation question 7:** How effective would this option be in addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 8:** How would this option impact you? Please provide impacts and cost relevant to you.

**Consultation question 9:** Referring to Table 1 in Section 3.1, which implementation mechanism would be most appropriate for this policy option? Please provide the pros and cons of your selected implementation mechanism.

<sup>59</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 4 April 2018)



#### **Option 4: Added sugars quantified in the NIP**

Description: This option proposes to quantify a foods' added sugars content in the Nutrition Information Panel (NIP). Added sugars would be an addition to the existing information in the NIP.

This option aims to address the policy issue by providing information to enable consumers to identify foods containing added sugars, compare products to identify those which are lower in added sugars, and use this information to make informed choices in support of dietary guidelines.

There are two possible approaches to this option:

- *Added sugars quantified in the NIP:* the food's added sugars content is quantified in the NIP.
- *Added sugars quantified in the NIP and enhanced with additional contextual information:* The added sugars information in the NIP could be enhanced with additional contextual information, such as HIGH/MEDIUM/LOW messaging in relation to the products' added sugars content or using %DI labelling for added sugars (a daily intake reference value for added sugars would need to be established to enable %DI labelling).

This additional contextual information could support consumers to make judgements about abstract information (such as grams of added sugars per 100g of food) in isolation, i.e. without comparing products. The cut-offs for HIGH/MEDIUM/LOW messaging would be determined as part of the implementation of this option.

Rationale: Under the status quo, information about the added sugars content of foods is limited, which impacts on consumer's ability to make choices in support of the dietary guidelines (which recommend limiting consumption of foods containing added sugars). Consumer research indicates that consumers do not understand what added sugars are, and have difficulty classifying sugars as 'added' or 'natural'. This option seeks to overcome this consumer confusion by clearly quantifying in the NIP the amount of added sugars in a product.

International consumer research also reports that consumers are not able to use abstract information such as grams of sugars listed on a label to evaluate whether a food is high or low in sugars, and that additional contextual information can assist consumers to make more accurate judgements about a food's sugars content. The second approach above proposes to provide contextual information to assist consumers to interpret the abstract information on the NIP.

Current examples: The United States is implementing a version of this option. The amount of 'added sugars', together with the % DV (daily value), per serving is to be included in the US NIP. The values are indented underneath total sugars. The development of this approach involved a number of pieces of work, including the development of a definition of added sugars and monitoring and compliance strategies.

Canada is implementing a range of changes to labels, several of which impact on sugars labelling. Declaration of added sugars is not required, but the %DV for total sugars is required in the NIP along with a statement that ‘5% or less is **a little**, 15% or more is **a lot**’.

Note: Consideration was given to options which would replace the current total sugars declaration in the NIP with an added sugars declaration. However, these were not progressed to avoid reducing information available to consumers. As added sugars are a subset of total sugars introducing an added sugars declaration below the total sugars entry in the NIP would provide context to the added sugars information and interested consumers may be able to estimate the proportion of total sugars derived from added sugars. This is also consistent with the way total fats and saturated fats are displayed in the NIP.

### Strengths

- Provides additional information to assist consumers to identify foods containing added sugars and use this information to make informed choices in support of dietary guidelines regarding reducing/limiting foods containing added sugars.
- The addition of added sugars to the NIP would allow comparisons to be made between food products by consumers.
- May reduce consumer confusion between added and total sugars, where consumer understanding is low<sup>60</sup>.
- If %DI labelling (or other contextual labelling) were implemented in the NIP alongside additional added sugars information, consumers may be further able to identify products lower in added sugars content without needing to compare products.
- Consumers report having an interest in sugars and may be receptive to additional labelling<sup>61</sup>.

### Weaknesses

- Technical issues of defining sugars-based ingredients/added sugars.
- Presents challenges for monitoring, enforcement and compliance due to cost and immaturity of analytical methods, and difficulties associated with a supply-chain or recipe-based approach.
- HIGH/MEDIUM/LOW-type advice adds complexity given the HSR system is the overall Australian and New Zealand front-of-pack qualitative advice system.
- % DI labelling requires a level of literacy and numeracy to understand.
- Interpretative advice on only one nutrient in the NIP (for example added sugars HIGH/MEDIUM/LOW) (without including other negative nutrients – saturated fat and salt) could imply sugars area more concerning nutrient which is inconsistent with the dietary guidelines. May lead some consumers to place too much emphasis on sugars, resulting in less accurate evaluations of a food’s overall healthiness and may have unintended consequences for intakes of other nutrients and reformulation<sup>62</sup>.
- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.

---

<sup>60</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 4 April 2018)

<sup>61</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 4 April 2018)

<sup>62</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 4 April 2018)

**Consultation question 10:** How effective would this option be in addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 11:** How would this option impact you? Please provide impacts and cost relevant to you.

**Consultation question 12:** How would the proposed option impact existing elements of a food label (both mandatory and voluntary)? Would adopting this option require another element of a food label to be removed from the package? If so, which labelling elements would be removed?

**Consultation question 13:** Referring to Table 1 in Section 3.1, which implementation mechanism would be most appropriate for this policy option? Please provide the pros and cons of your selected implementation mechanism.

### ***Option 5: Advisory labels for foods high in added sugars***

Description: This option proposes to place advisory labels on foods that exceed a predetermined threshold for added sugars. The advisory labels would indicate that the food is high in added sugars, and/or include advice to consumers on the negative health consequences of consuming too much added sugars. The threshold for requiring a food label to carry an advisory label would be determined during the implementation of this option.

This option aims to address the policy issue by clearly identifying foods which are high in added sugars, enabling consumers to make informed choices in relation to the recommendations in the dietary guidelines, which recommend limiting consumption of foods containing added sugars.

There are two potential approaches for this option:

- *Shape or symbol:* Use of a particular shape or symbol (e.g. stop sign, give way sign, arrows, exclamation mark) accompanied with text such as ‘high in added sugars’ which would be required for foods that have a sugar sugar content that exceeds a certain threshold.
- *Text box:* A warning text box with a specific message, such as ‘this product is high in added sugars, which increases the risk of dental caries’. This text box would be required for foods that have an added sugars content that exceeds a certain threshold

Placement of the advisory label (e.g. whether it would be prominently on the front of pack or elsewhere) would be addressed as part of implementation considerations.

Rationale: International consumer research<sup>63</sup> reports that consumers are not able to use abstract information, such as grams of sugars listed on a label, to evaluate whether a food is high or low in sugars, and that additional contextual information can assist consumers to make more accurate judgements about a foods’ sugars content. This option proposes to overcome the need for consumers to evaluate whether a food is

---

<sup>63</sup> Food Standards Australia New Zealand, 2017. ‘Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling’. Available at: [Food Regulation website](#) (accessed 4 April 2018)

high or low in sugars by providing consumers with clear and simple information to identify foods which are high in added sugars.

Current examples: There are currently no advisory labels used in Australia or New Zealand on food packaging to indicate that a product is high in added sugars. However, there are other warning and advisory statements required on particular foods under *Standard 1.2.3 – Information requirements – warning statements, advisory statements and declarations* in the Code. For example, mandatory warning statements are required for royal jelly when presented as a food or a food containing royal jelly and specific wording must be used. The wording for advisory statements is not prescribed. For example mandatory advisory statements are required for foods containing polyols and polydextrose with a statement *to the effect that excess consumption of these substances are likely to have a detrimental laxative effect*.

In June 2016 Chile introduced regulation for solid foods with 10 grams or more of sugars per 100 grams to include a black label with large letters with a warning fact, such as “High in sugar”. Canada is currently considering introducing mandatory advisory labelling for foods high in sugars, which would involve “high in sugars” front of pack messaging.

### Strengths

- Specific shapes and symbols (such as a stop sign) are already meaningful to consumers and do not require an explanation for consumers to understand<sup>64 65</sup>.
- Overcomes the problem that consumers generally aren’t able to use abstract information such as grams of sugars listed on a label (such as the NIP) to meaningfully evaluate whether a food is high or low in sugars.
- Simple terminology such as ‘high in sugars’ does not require analysis or interpretation of the NIP by the consumer, and instead provides recognisable guidance at the potential point of purchase or consumption to support informed choices.
- If the advisory label can be on the Front of Pack (FOP), evidence suggests nutrient specific FOP labelling can assist consumers identify healthier food options<sup>66</sup>.
- FOP nutrition labelling systems that have proven effective in improving consumers’ choices are those that are simple, consistent, coloured, do not require mathematical skills, and take little time to interpret<sup>67</sup>.
- Provides additional information for consumers in their decision making at point of purchase. May also provide advice about the health consequences of consuming too much sugar.
- May reduce consumer confusion between added and total sugars, where consumer understanding is low<sup>68</sup>.

---

<sup>64</sup> Health Canada, 2016. ‘*Toward Front-of-Package Nutrition Labels for Canadians-Consultation Document*’. Available at: [Health Canada](#) (accessed 4 April 2018).

<sup>65</sup> Lumen Learning, n.d. ‘Reading: Symbols and Language’. Available at: [Lumen website](#) accessed 4 April 2018.

<sup>66</sup> Health Canada, 2016. ‘*Toward Front-of-Package Nutrition Labels for Canadians-Consultation Document*’. Available at: [Health Canada](#) (accessed 4 April 2018).

<sup>67</sup> United Nations Children’s Fund (UNICEF), 2016. ‘*Review of current labelling regulations and practices for food and beverage targeting children and adolescents in Latin America countries (Mexico, Chile, Costa Rica and Argentina) and recommendations for facilitating consumer information*’. Available at: [UNICEF website](#) (accessed 3 April 2018).

<sup>68</sup> Food Standards Australia New Zealand, 2017. ‘*Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling*’. Available at: [Food Regulation website](#) (accessed 4 April 2018).

- Consumers report having an interest in sugars and may be receptive to additional labelling<sup>69</sup>.

### Weaknesses

- Inclusion of an advisory label may compete with the other non-mandatory food labelling elements.
- May also compete with the HSR for space on the label. HSR takes into account more than sugars (energy, sugar, saturated fat, protein, sodium and fruit, vegetable content) so and if the HSR was pushed-off the label by sugar advisory labels, the food label may provide less information to support consumers to take a whole-of-diet approach to food choices.
- Advisory labels cannot take into account frequency of consumption (and depending on the approach, may not take into account amount for consumption). A food with a low-medium added sugars content would not be required to be labelled, however, if this food is consumed in high frequency or volume it could still contribute significantly to a consumer's intakes of added sugars.
- Focusing on added sugars alone as a negative nutrient (without including other negative nutrients – saturated fat and salt) will imply added sugars are a more concerning nutrient which is inconsistent with the dietary guidelines. May lead some consumers to place too much emphasis on added sugars, resulting in less accurate evaluations of a food's overall healthiness and may have unintended consequences for intakes of other nutrients and reformulation.
- Technical issues of defining sugars-based ingredients/added sugars.
- Presents challenges for monitoring, enforcement and compliance due to cost and immaturity of analytical methods, and difficulties associated with a supply-chain or recipe-based approach.
- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.

**Consultation question 14:** How effective would this option be in addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 15:** How would this option impact you? Please provide impacts and cost relevant to you.

**Consultation question 16:** How would the proposed option impact existing elements of a food label (both mandatory and voluntary)? Would adopting this option require another element of a food label to be removed from the package? If so, which labelling elements would be removed?

**Consultation question 17:** Referring to Table 1 in Section 3.1, which implementation mechanism would be most appropriate for this policy option? Please provide the pros and cons of your selected implementation mechanism.

<sup>69</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 4 April 2018).

### **Option 6: Pictorial approaches to convey the amount or types of sugars in a serving of food**

Description: This option proposes to pictorially display the amount of sugars and/or added sugar in a serving of food. The pictorial information could be displayed on the front of the pack or in association with the NIP.

Examples of pictorial approaches representing the added sugars content in teaspoons of table sugar (or some other household measure) or numbers of sugar cubes. Another pictorial approach could be using graphics such as pie charts (e.g. the proportion of added and naturally occurring sugars in the food product), or a bar chart (e.g. the proportion of added sugars in the food compared to recommended intakes, noting that a daily intake reference value for added sugars would need to be established to enable this type of labelling).

The option aims to address the policy issue by providing information about a food's added sugars content in a familiar format, such as teaspoons of table sugar, to enable consumers to identify foods containing added sugars, compare products to identify those which are lower in added sugars, and use this information to make informed choices in support of dietary guidelines.

Rationale: Under the status quo, information about the added sugars content of foods is limited, which impacts on consumer's ability to make choices in support of the dietary guidelines. Interpreting a product's NIP requires also an understanding of numerical information, including tabular formats, and the ability to translate absolute information into something that is meaningful to the consumer.

Providing information on the added sugars content of a food in pictorial form on the label would require a lower degree of numerical literacy to interpret. This option could provide accessibility to information about a food's added sugar content and more clarity for people concerned about added sugars in foods.

Current example: Labelling of sugars using teaspoons was proposed in the United Kingdom. A Private Member's Bill entitled 'Sugar in Food and Drinks (Targets, Labelling and Advertising) Bill 2015-16' was presented to the UK Parliament on 20 October 2015. The Bill proposed to require that the sugars content be represented on food labels in 'teaspoon units' where one teaspoon equals four grams of sugar. When the UK Parliament was dissolved on 3 May 2017 for a general election, the Bill was removed and no further action was taken.

#### Strengths

- Amount of added sugars in a food is presented using commonly understood symbols (e.g. eating utensils (such as teaspoons), presentation forms of sugar (such as sugar cubes) and common graphics (such as pie charts or bar graphs where the proportion of added sugars are presented)).
- If the pictorial can be on the front-of-pack, evidence suggests nutrient specific front-of-pack labelling can assist consumers identify healthier food options<sup>70</sup>.

---

<sup>70</sup> Health Canada, 2016. 'Toward Front-of-Package Nutrition Labels for Canadians-Consultation Document'. Available at: [Health Canada](#) (accessed 4 April 2018).

- These symbols visually convey the message about the amount and/or proportion of added sugars in food rather than a reliance on the absolute numeric in the NIP. It therefore has the potential to provide more clarity for people concerned about the sugar content of foods. If consumers are aware of the need to limit added sugar, then this option could indirectly support the dietary guidelines.
- Consumers report having an interest in sugars and may be receptive to additional labelling<sup>71</sup>.
- Provides additional information for consumers in their decision making at point of purchase.
- Would be easier to understand for consumers with low levels of literacy and numeracy.

#### Weaknesses

- Requires consumers to know how many teaspoons or cubes of added sugars a day are recommended and how the amount of added sugars in a serving of food relates to a daily recommendation (Australia and New Zealand do not have a daily recommendation for added sugars).
- Focusing on sugars alone as a negative nutrient (without including other negative nutrients – saturated fat and salt) could imply sugars are a more concerning nutrient which is inconsistent with the dietary guidelines. The inclusion of pictorial labels about sugars may lead some consumers to place too much emphasis on sugars, resulting in less accurate evaluations of a food's overall healthiness<sup>72</sup>.
- If used on the front-of-pack this could cause consumer confusion with the current front-of-pack HSR system. HSR takes into account more than sugars (energy, sugar, saturated fat, protein, sodium and fruit, vegetable content) so and if the HSR was pushed-off the label by pictorial added sugars labels, the food label may provide less information to support consumers to take a whole-of-diet approach to food choices.
- Inclusion of a new label element may compete with the other non-mandatory food labelling elements for the space on the label.
- Technical issues of defining sugars-based ingredients/added sugars.
- Presents challenges for monitoring, enforcement and compliance due to cost and immaturity of analytical methods, and difficulties associated with a supply-chain or recipe-based approach.
- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.

**Consultation question 18:** How effective would this option be addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 19:** How would this option impact you? Please provide impacts and cost relevant to you.

<sup>71</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 4 April 2018)

<sup>72</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 4 April 2018)

**Consultation question 20:** How would the proposed option impact existing elements of a food label (both mandatory and voluntary)? Would adopting this option require another element of a food label to be removed from the package? If so, which labelling elements would be removed?

**Consultation question 21:** Referring to Table 1 in Section 3.1, which implementation mechanism would be most appropriate for this policy option? Please provide the pros and cons of your selected implementation mechanism.

### ***Option 7: Digital linking to off label web-based information about added sugars content***

Description: A food label would signal the availability of further information about the food which can be accessed on a website via an electronic or digital link. The digital/electronic link could be a “QR code”, bar code or other scannable code, or a link to a website that has to be typed into a browser. Text accompanying the link could refer to more information about the food generally, and/or could refer directly to added sugars, for example, ‘*Scan here for more information about this food*’ or ‘*Scan here for more information about the added sugars in this food*’.

Websites would be maintained by the food manufacturer. The actual information to be provided on the website would be identified during implementation of this option but may be anything from the labelling options currently under consideration: education, identification of sugars-based ingredients, additional NIP information about added sugars, etc.

This would be different to the status quo as requirements for the signal on the label and the information on the website would be provided, for example if the additional information refers to a quantity of added sugars, how to determine added sugars.

This option aims to address the policy issue by providing consumers with additional contextual information about added sugar on a website. This additional web-based information could be used by consumers to make informed choices in support of the recommendations in the dietary guidelines. Note this option does not extend to provision of information for on-line sales of food.

Rationale: Under the status quo, information about the added sugars content of foods is limited (on and off food labels), which impacts on consumers’ ability to make choices in support of the dietary guidelines. This option would enable consumers to easily access this information through smart phones and websites.

Current example: Although not relevant to sugar, the United States Department of Agriculture are currently drafting a proposed rule<sup>73</sup> for a national mandatory system for disclosing the presence of bioengineered material. Under the new rule the form of disclosure will be a text, symbol, or electronic or digital link, with the disclosure option to be selected by the food manufacturer. A study<sup>74</sup> has been completed to identify potential technological challenges that may impact whether consumers would

---

<sup>73</sup> United States Department of Agriculture, n.d. ‘*GMO Disclosure & Labeling*’. Available at: [USDA website](#) (accessed 24 April 2018)

<sup>74</sup> United States Department of Agriculture, 2017. ‘*Study of Electronic or Digital Disclosure*’. Available at: [USDA website](#) (accessed 24 April 2018).



have access to the bioengineering disclosure through electronic or digital disclosure methods.

Again not specific to sugars, private industry backed organisations in the US and Canada are providing access to more detailed product information with a digital format (from websites, through Apps) directly from the manufacturer e.g. Smart Label<sup>75</sup> or use of company apps<sup>76, 77</sup>.

### Strengths

- Could provide additional information for consumers (with access to a smart phone) in their decision making at point of purchase.
- All of the above proposed additional information on the label could be provided through smart labelling.
- May have lower implementation cost for business that have established websites.
- Allows for easier modification for any future changes in requirements, guidelines, research and evidence.
- Could provide further information about sugar in food in small packages that do not have nutrition information panels.
- Provision of further information about a food, including about added sugars content but also other information.
- Consumers report having an interest in sugars and may be receptive to additional information<sup>78</sup>.

### Weaknesses

- Requires food companies to have or establish a website and/or to develop apps (or other tools) to enable consumer access to information.
- Requires consumers to have internet access and a smart phone or other access to website information and to be technologically literate.
- Is reliant upon consumers to be motivated to use such labelling to be effective.
- Possible technical and consistency issues of defining sugars-based ingredients/added sugars, if this information is to be provided.
- Impact on industry to implement additional labelling, including cost associated with label changes and website set up and use of additional space on package.

**Consultation question 22:** How effective would this option be in addressing the policy issue and achieving the desired outcome? Please provide evidence to justify your views.

**Consultation question 23:** How would this option impact you? Please provide impacts and cost relevant to you.

<sup>75</sup> Smart Label. Available at: [Smart Label website](#) (accessed 24 April 2018)

<sup>76</sup> Packing Strategies, 2017. 'Mondelez International launches Smart Label apps'. Available at: [Packing Startagies website](#) (accessed 24 April 2018).

<sup>77</sup> Unilever, 2018. 'Smart Label: What is a Smart Label?'. Available at: [Unilever website](#) (accessed 24 April 2018).

<sup>78</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 4 April 2018)

**Consultation question 24:** How would the proposed option impact existing elements of a food label (both mandatory and voluntary)? Would adopting this option require another element of a food label to be removed from the package? If so, which labelling elements would be removed?

**Consultation question 25:** Referring to Table 1 in Section 3.1, which implementation mechanism would be most appropriate for this policy option? Please provide the pros and cons of your selected implementation mechanism.

### ***Questions about all proposed options***

**Consultation question 26:** Are there additional options that should be considered to address the policy issue and achieve the desired outcome? If so, please describe your suggested option and how it addresses the policy issue and would achieve the desired outcome? Please also describe the cost of implementing your proposed option.

**Consultation question 27:** Is the description of the strengths and weaknesses of the proposed options (compared to the status quo) accurate? Please justify your response with evidence.

**Consultation question 28:** Are there additional strengths and weaknesses associated with the proposed options (compared to the status quo)? Please describe what these are?

**Consultation question 29:** If you proposed a different option at question 26, please detail the strengths and weaknesses of you proposed option, compared to the status quo.

It is recognised that some foods make a greater contribution to intakes of added sugars in Australia and New Zealand, and FRSC considered whether labelling options should only be applied to these main contributors. However, the need to be able to compare added sugars content across products is important, and therefore only one of the proposed options which relates to labelling changes (Option 5) focusses only on foods high in added sugars. The remaining options that involve labelling changes would apply to all products which are required to be labelled.

**Consultation question 30:** Should the proposed options apply to all packaged foods in the Australian and New Zealand food supply, or only particular foods or food categories? If so, which option(s) should apply to particular foods or food categories and what would these foods or food categories be?

### **3.1. Implementation mechanisms**

It is expected that, for most of the proposed options, the implementation mechanism options are the same, ranging from voluntary through co-regulatory to mandatory and regulatory. Education about the option would be a standard element of any implementation option. Table 1 below identifies impacts of the proposed implementation mechanisms.

#### ***Non regulatory***

- Voluntary implementation

Industry would voluntary provide information about added sugars on food labels, with industry solely responsible for enforcement.

For example, Australian Food and Grocery Council and New Zealand Food & Grocery Council members are voluntarily phasing out the use of BPA in polycarbonate plastic baby bottles and many companies have BPA-free options available. This is in response to consumer preference and demand and not an issue about product safety.

- **Code of practice - industry driven**

Industry would agree on how information about added sugars would be provided on the food label. These agreements and obligations would be described in a code of practice, with industry solely responsible for monitoring and enforcement. Non-compliance would not impose punitive sanctions, such as fines, if the code of practice is not complied with.

For example, the VITAL Program was developed, by Allergen Bureau and food industry, to make a single simple standardised precautionary statement available to assist food producers in presenting allergen advice consistently for allergic consumers.

- **Code of practice -government driven**

Industry and government would agree on how information about added sugars would be provided on the food label. These agreements and obligations would be described in a code of practice. Although, they would not form part of explicit government regulation, government would influence business to comply. Non-compliance would not impose punitive sanctions, such as fines, if the code of practice is not complied with.

For example, The Health Star Rating is a front-of-pack labelling system that rates the overall nutritional profile of packaged food and assigns it a rating from ½ a star to 5 stars. It has been developed by the Australian, state and territory governments in collaboration with industry, public health and consumer groups,

## **Regulatory**

- The Australia New Zealand Food Standards Code would mandate declarations about added sugars on the food label. Australian State and territory and New Zealand Governments would be responsible for implementation and monitoring to detect non-compliance. Non-compliance would impose punitive sanctions, such as fines, if the regulations are not complied with.

For example, Standard 1.2.8 of the Code requires a declaration of the total sugars content of a food to be labelled in the Nutrition Information Panel (which is mandatory for most packaged foods<sup>79</sup>). The Australian State and Territory and New Zealand government agencies implement, monitor and enforce the Food Standards Code through their own Food Acts and other food related legislation.

---

<sup>79</sup> exceptions include foods such as herbs and spices, vinegar, salt, alcoholic beverages, tea or coffee, water, foods in small packages (unless a claim requiring nutrition information is made in relation to the food)

A summary of Pros and Cons for four different implementation mechanisms is provided below.

**Table 1: Characteristics of the proposed implementation mechanisms**

Mechanisms	Pros	Cons
<b>Voluntary implementation</b>	<ul style="list-style-type: none"> <li>• lower government administration costs</li> <li>• lower compliance costs for business</li> <li>• would not require any notification to the WTO</li> <li>• allows for flexible, responsive and timely implementation and modification and also for any future changes in guidelines, research and evidence.</li> <li>• good reputational benefit to those companies who label voluntarily</li> </ul>	<ul style="list-style-type: none"> <li>• lower compliance, coverage and consistency</li> <li>• increased risk of inconsistent use of added sugars definition</li> <li>• no sanctions for non-compliance</li> <li>• assumes agreement on technical challenges mentioned above in the impact analysis</li> <li>• unless it was agreed by industry across Australia and New Zealand, there may not be a joint approach, but also could lead to a variation in approaches between products in the same country</li> </ul>
<b>Code of practice - industry driven</b>	<ul style="list-style-type: none"> <li>• lower government administration costs</li> <li>• costs to businesses to develop or administer these schemes</li> <li>• lower compliance costs for business</li> <li>• allows for flexible, responsive and timely implementation and modification and also for any future changes in guidelines, research and evidence</li> <li>• would not require any notification to the WTO</li> <li>• good reputational benefit to those companies who participate</li> </ul>	<ul style="list-style-type: none"> <li>• lower compliance and coverage</li> <li>• increased risk of inconsistent use of added sugars definition</li> <li>• ineffective sanctions for non-compliance</li> <li>• creation of confusion about regulatory requirements</li> <li>• inclusion of a new label element may compete with the other non-mandatory food labelling elements (e.g. HSR or health claims)</li> <li>• assumes agreement on technical challenges mentioned above in the impact analysis</li> <li>• unless it was agreed by industry across Australia and New Zealand, there may not be a joint approach</li> </ul>

Mechanisms	Pros	Cons
<b>Code of practice - government driven</b>	<ul style="list-style-type: none"> <li>• consistent information provided to consumers</li> <li>• a joint approach to labelling of sugar between Australia and New Zealand</li> <li>• would not require any notification to the WTO</li> <li>• agreement on technical challenges mentioned above in the impact analysis</li> <li>• good reputational benefit to those companies who participate</li> </ul>	<ul style="list-style-type: none"> <li>• potentially low coverage</li> <li>• compliance cost for business</li> <li>• assumes agreement on technical challenges outlined above</li> <li>• may not be easy to modify to allow for future changes in guidelines, research and evidence</li> <li>• inclusion of a new label element may compete with HSR or health claims)</li> </ul>
<b>Regulatory</b>	<ul style="list-style-type: none"> <li>• consistent information provided to consumers</li> <li>• high compliance and coverage</li> <li>• sanctions for business for non-compliance</li> <li>• a joint approach to labelling of sugar between Australia and New Zealand</li> <li>• lack of confusion amongst consumers as all labels would look the same</li> <li>• agreement on technical challenges mentioned above in the impact analysis</li> </ul>	<ul style="list-style-type: none"> <li>• high compliance cost for business</li> <li>• would require imported products to comply with new label changes</li> <li>• would require notification to the WTO</li> <li>• may not be easy to modify to allow for future changes in guidelines, research and evidence</li> </ul>

**Consultation question 31:** Is the description of the pros and cons of the different implementation mechanisms in Table 1 accurate? Please justify your response with evidence.

**Consultation question 32:** Are there other pros and cons associated with the different implementation mechanisms? Please describe what these are.

## 4. Impact analysis (costs and benefits)

A RIS should provide an analysis of the costs and benefits of the feasible options, including the groups in the community that would be affected by each option and the economic, social and environmental impacts on them. This section discusses the predicted costs and benefits of the options identified above.

Benefits: Aside from the status quo, the proposed options would benefit the Australian and New Zealand communities by providing additional contextual information in relation to sugars to better enable them to make informed choices in support of the dietary guidelines.

Consumer research indicates that consumers are concerned about the sugars content of food, and consumers who are attempting to reduce their intakes of sugars report limiting consumption of food categories they consider being high in sugars (e.g. sugar-sweetened beverages) and reading food labels<sup>80</sup>, and the options proposed would particularly benefit these consumers.

Labelling that allows better identification of foods containing added sugars may also support the implementation of programs and campaigns that aim to promote the dietary guidelines to the public, and within particular settings such as schools.

Labelling provides information to consumers at the potential point of purchase or consumption, which supports them to make timely decisions about the foods they purchase and/or consume. Under the status quo, Australian consumers wanting information on the added sugars content of foods would need to access the technical FSANZ food composition database, which may not be up-to-date in relation to changes in food composition or food supply, does not allow comparison between different varieties of a product, and is not designed to be a consumer resource. Accessing this information is not a timely process and requires nutrition knowledge and mathematical skills to interpret. For New Zealand consumers, less information about the added sugars content of foods is available as the FSANZ database only relates to Australian foods, and there is no equivalent for New Zealand.

As the desired outcome of this work relates to provision of information, that is the focus of the consideration of benefits associated with each of the proposed options. However, FRSC recognises that there may be additional associated benefits to the community from this work. For example, some of the proposed options may encourage reformulation of products to reduce the sugars content, which may reduce the added sugars content of foods available for consumption. For example in relation to Option 4, food manufacturers may reformulate their products to reduce the added sugars content to below the level required to display an advisory label. This trend has been reported internationally in relation to reformulation to avoid taxes aimed at drinks high in sugars<sup>81</sup>.

---

<sup>80</sup> Food Standards Australia New Zealand, 2017. *Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling*. Available at: [Food Regulation website](#) (accessed 4 April 2018)

<sup>81</sup> HM Treasury (United Kingdom), 2018. *Soft Drinks Industry Levy comes into effect: The 'Sugar Tax' will help to reduce sugar in soft drinks and tackle childhood obesity*. Available at [UK Government](#) (accessed 24 April 2018).

Costs: Aside from Option 2 (education), the proposed options relate to food labelling changes. Consumer research indicates that inclusion of added sugars information on nutrition labelling may lead some consumers to place too much emphasis on sugars, resulting in less accurate evaluations of a food's overall healthiness<sup>82</sup>. If consumers focus their attention on sugars labelling information at the expense of other information on the label such as saturated fat or salt/sodium content, this may be a negative impact of labelling changes (in addition to recommending that consumers limit consumption of foods containing added sugars, the dietary guidelines also recommend limiting foods containing saturated fat and added salt).

Given that a food label is a limited space, another potential cost of labelling changes is that the introduction of added sugars information on food labels may push-off other voluntary elements of food label, such as the HSR. As the HSR takes into account a several nutrients and food components, if it were removed and replaced with added sugars labelling, there would be less information available on a food label to allow consumers to make informed choices in support of the dietary guidelines. Added sugars labelling could also be adopted at the expense of non-health related information such as recycling messages. Part 3 of this paper contains a series of questions for industry to seek information about whether added sugars labelling would require other labelling elements to be removed.

Labelling changes would introduce a cost to businesses to change the labels of their food products, including label re-design and printing costs. There may also be additional cost associated with resources required to calculate added sugars content of foods, particularly for foods which contain both naturally occurring sugar and added sugars.

Part 3 of this paper contains a series of questions for industry to seek information on the cost of labelling changes associated with each option. Costing data provided by industry through this process will be taken into consideration as part of the development of the DRIS and in recommending a preferred policy option to the Forum.

Other considerations in analysing the costs of each of the proposed options include the impact on small businesses, which are likely to be less equipped to calculate the added sugars content of their foods and may change their food labels less frequently than large businesses. Costs to Government are not considered in a RIS.

**Consultation question 33:** Are there any other benefits or costs associated with the proposed labelling options which have not been identified above?

**Consultation question 34:** Should there be exemptions or other accommodations (such as longer transition periods) made for small businesses, to minimise the regulatory burden? If so, what exemptions or other accommodations do you suggest?

---

<sup>82</sup> Food Standards Australia New Zealand, 2017. 'Literature review on consumer knowledge, attitudes and behaviours relating to sugars and food labelling'. Available at: [Food Regulation website](#) (accessed 4 April 2018)

**Consultation question 35:** What would be the cost per year for the industry to self-regulate (e.g. voluntary code of practice- industry driven)? Please justify your response with hours of time, and number of staff required. Please specify which country (Australia or New Zealand) your evidence is based on.

**Consultation question 36:** Would industry pass any of the costs associated with implementing the proposed options on to consumers? What is the basis for your view?

## **5. Preferred option**

Submissions received in response to this consultation RIS will be used to prepare a Decision RIS where FRSC will recommend a preferred option(s) and implementation mechanism to the Forum.

The preferred option(s) and implementation mechanism recommended to the Forum will be those that are likely to have the highest net benefit. Consideration of the preferred option(s) and implementation mechanism will take into account the how effectively each option and implementation mechanism achieves the desired outcome, the feasibility of the proposed options, and the cost associated with implementing each option.

Depending on the volume and complexity of submissions received, it is expected that the Decision RIS will be presented to the Forum in late 2018.

## **6. Implementation and review**

Implementation and technical issues will be considered following the Forum's decision on potential changes to food labels in relation to sugars to enable consumers to make informed choices in support of the dietary guidelines. Implementation and enforcement of the preferred option(s) (provided it is not to maintain the status quo) would be undertaken by Government or industry, depending on the Forum's preferred implementation mechanism.



### *Added sugars intakes in Australia and New Zealand*

The body of the paper uses the term ‘added sugars’ in a broad sense to describe any sugars-based ingredients added to foods by manufacturers during processing or manufacturing, or by consumers and cooks during food preparation or at the time of consumption (and may include what are referred to as ‘free sugars’ such as honey).

It is not possible to distinguish between added and naturally occurring sugars using analytical methods. Therefore, determinations of the level of added sugars in foods which contain a mix of added and naturally occurring sugars are an estimate and may vary depending on which particular types of sugars are considered to be added sugars and/or the methodology used for calculating the level of added sugars in the food.

Therefore, due to the technical nature of this attachment, and the potential variations in estimates related to how added sugars are defined, the terms ‘added sugars’ and ‘free sugars’ have specific definitions in the discussion below.

### **Australia**

In April 2016 the Australian Bureau of Statistics (ABS) released the results of an analysis on consumption of added and free sugars in the Australian population in 2011-12<sup>83</sup>. This work was commissioned by the Australian Government Department of Health.

The analysis combined food consumption data from the 2011-12 National Nutrition and Physical Activity Survey with food composition data prepared by FSANZ on the added sugars content of foods consumed by survey participants (2011-13 AUSNUT database). In this analysis, ‘added sugars’ included all ingredients defined as sugars in the Australia New Zealand Food Standards Code<sup>84,85</sup>, while ‘free sugars’ referred to the WHO definition of free sugars<sup>86</sup>. Because there is no recommended intake for added sugars in Australia, only the results from the analysis of intakes of free sugars have been reported in this paper.

Adolescents aged 14-18 years old recorded the highest intake of free sugars, with males consuming an average of 92 grams per day (22 teaspoons) and females 70 grams (17 teaspoons). The top 10% of males in this age group consumed at least 160g (38 teaspoons) of free sugars per day.

The majority (81%) of free sugars consumed in Australia were from energy-dense, nutrient-poor ‘discretionary’ foods and beverages. The leading contributors towards intakes of free sugars were soft drinks and sports and energy drinks, accounting for

---

<sup>83</sup> Australian Bureau of Statistics, 2016. ‘*Australian Healthy Survey: Consumption of added sugars, 2011-12*’. Available at: [Australian Bureau of Statistics](#) (accessed 20 July 2016).

<sup>84</sup> Using the second definition of ‘sugars’ in the Code. Includes sucrose, fructose, dextrose, lactose and sugar syrups such as glucose syrup.

<sup>85</sup> Food Standards Australia New Zealand (FSANZ). 2015. ‘*Determining the amount of added sugars and free sugars in foods listed in the AUSNUT 2011-13 dataset*’ Available at: [Food Standards Australia New Zealand](#) (accessed 21 July 2016).

<sup>86</sup> World Health Organization, 2015. ‘*Guideline: Sugars intake for adults and children*’. Available at: [World Health Organisation - Guideline: Sugars intake for adults and children](#) (accessed 20 June 2016).

19% of free sugar intake in the population, followed by fruit and vegetable juices and drinks (13%). In particular, 14-18 year old males obtained approximately 35% of their intakes of free sugars from soft drinks and sports and energy drinks.

Aboriginal and Torres Strait Islander people consumed 15 grams (almost 4 teaspoons) more free sugars on average than non-Indigenous people<sup>87</sup>. Beverages were the most common source of free sugars for both populations, however Aboriginal and Torres Strait Islander people derived a higher proportion of free sugars from beverages than non-Indigenous people (67% compared with 51%).

More than half of all Australians (52%) exceeded the WHO recommendation to limit energy from free sugars to less than 10% of energy intakes, with free sugars contributing an average of 10.9% of energy in the Australian population. Children and adolescents were most likely to exceed the recommendation with almost three-quarters of 9-18 year olds exceeding the recommendation<sup>88</sup>.

The majority (90%) of Australians also exceeded the WHO conditional recommendation that free sugars be reduced to less than 5% of energy intake. Children and teenagers (aged between 4 and 18 years) were most likely to exceed this recommendation (97% of this group exceeded the recommendation). The group least likely to exceed this recommendation were adults aged 51-70 years, however, 81% of this group still exceeded the recommendation.

When examining the contribution that free sugars make to energy intakes according to socioeconomic characteristics, those with the highest level of disadvantage had a higher intake of free sugars compared to those with the lowest disadvantage, those living in major cities had lower intakes compared to those in inner and outer regional Australia, and for adults, greater education was associated with a lower contribution from free sugars to overall energy intakes.

Aboriginal and Torres Strait Islander people derived more of their dietary energy from free sugars than non-Indigenous people (14% compared with 11%). In particular, Aboriginal and Torres Strait Islander adults aged 19-30 years derived 16% of dietary energy from free sugars, compared with 12% for non-Indigenous adults aged 19-30 years. This difference was also apparent for Aboriginal and Torres Strait Islander and non-Indigenous adults aged 31-50 years, where free sugars contributed 14% and 10% respectively<sup>89</sup>.

ABS analysis of changes in population's consumption of sugars between the 1995 and 2011-12 national dietary surveys<sup>90</sup> reports that free sugars consumption has decreased, with the average proportion of dietary energy from free sugars declining from 12.5% in 1995 to 10.9% in 2011-12. The largest declines (and contributing most

---

<sup>87</sup> Australian Bureau of Statistics 2018, 'Australian Aboriginal and Torres Strait Islander Health Survey: Consumption of Added Sugars, 2012-13'. Available at: [Australian Bureau of Statistics](#) (accessed 26 April 2018)

<sup>88</sup> Australian Bureau of Statistics, 2016. 'Australian Healthy Survey: Consumption of added sugars, 2011-12'. Available at: [Australian Bureau of Statistics](#) (accessed 20 July 2016).

<sup>89</sup> Australian Bureau of Statistics 2018, 'Australian Aboriginal and Torres Strait Islander Health Survey: Consumption of Added Sugars, 2012-13'. Available at: [Australian Bureau of Statistics](#) (accessed 26 April 2018)

<sup>90</sup> Australian Bureau of Statistics 2017, 'Consumption of added sugars- A comparison of 1995 to 2011-12'. Available at: [Australian Bureau of Statistics](#)

to the overall declines) in free sugars were seen among children. Between 1995 and 2011-12, the average proportion of energy derived from free sugars by children aged 2-18 years decreased from 17% to 13%. Most of the decline of children's free sugars consumption can be accounted for by reduced consumption of soft drinks, cordial and fruit juice/drinks. It is not possible to attribute these reductions in free sugars consumption to any particular public health nutrition intervention.

## **New Zealand**

The 2008/09 Adult Nutrition Survey (ANS 08/09) (latest data available) collected information on the food and beverage intake of 4721 New Zealand adult's (aged 15 years and older) through 24 hour diet recalls<sup>91</sup>.

In 2016, University of Otago researchers estimated the intake of free and added sugars in New Zealand using dietary intake data from the ANS 08/09<sup>92, 93</sup>. The Otago researchers applied a ten-step protocol<sup>94</sup> to estimate the amount of added sugars in the foods consumed by survey participants. For the purpose of this research, 'added sugars' were defined as per the United States Department of Agriculture (USDA) definition for added sugars and 'free sugars' as per the WHO definition for free sugars. To better enable comparison with the Australian results, only the free sugars results are reported here. The research did not report on the contribution of food groups to added or free sugars intake in the New Zealand diet, and no trend data is available for intakes of free/added sugars in New Zealand. The analysis also did not include children under 15 years.

The researchers estimated that New Zealand adults consume a mean of 66g (16.5 teaspoons) and median of 57g (14 teaspoons) of free sugars per day. Compared to females, males consumed significantly more free sugars (median intake of 51g and 64g; respectively). Younger age groups generally had significantly higher intakes of free sugars, with males aged 15-18 years consuming a median 84g of free sugars per day, and females of this age group consuming a median of 71 grams per day.

By ethnicity, there was no significant difference in consumption of free sugars, however there was a trend for Maori to consume more free sugars than Pacific or New Zealand European and Other (NZEO). Overall, Pacific females aged 51 years and older had the lowest intake of free sugars (median intake of 28 g/day).

Over half (58%) of New Zealand Adults exceeded the WHO recommendation to limit energy from free sugars to less than 10% of energy intake, with the median intake being 11%. NZEO females aged between 15-18 years were the most likely to exceed this recommendation, with 80% of this group exceeding this recommendation. Pacific females aged 51 years and over were least likely to exceed this recommendation.

---

<sup>91</sup> University of Otago and Ministry of Health, 2011. 'A Focus on Nutrition: Key findings of the 2008/09 New Zealand Adult Nutrition Survey'. Wellington: Ministry of Health.

<sup>92</sup> Nettleton A, 2016. 'Estimating added sugars intake in New Zealand' [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018).

<sup>93</sup> Kibblewhite RL, 2016. 'Estimating free sugars intake in New Zealand' [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018)..

<sup>94</sup> Louie JCY, Moshtaghian H, Boylan S, Flood VM, Rangan AM, Barclay AW, et al, 2015. 'A systematic methodology to estimate added sugar content of foods'. *European journal of clinical nutrition*: 69(2), 154-61.

The majority (91%) of New Zealand adults exceeded WHO's conditional recommendation to limit energy from free sugars to less than 5% of energy intake. Again NZEO females aged 15-18 years were the most likely to exceed these recommendations, with 97% of this group exceeding these recommendations. The least likely to exceed these recommendations were Maori males aged over 51 years, however, still only 24% of this group managed to meet these recommendations.

## ***Overweight and obesity in Australia and New Zealand***

### **Australia**

High body mass index<sup>95</sup> accounted for 8.27% of the total disease burden in Australia in 2016<sup>96</sup> and was the leading risk factor contributing to total disease burden<sup>97</sup>. Since 1990, burden of disease attributable to high body mass index in Australia increased by 14%. In 1990, high body mass index accounted for 7.23% of the total disease burden, and was ranked fourth in risk factor contribution to total disease burden<sup>98</sup>.

For Australians aged 18 years and over, the prevalence of overweight and obesity increased in Australia from 56.3% in 1995 to 63.4% (11.2 million people) in 2014-15<sup>99</sup>. For children aged 5-17 years, the proportion who were overweight or obese increased from 20.9% in 1995 to 25.7% in 2011-12 and then remained stable to 2014-15 (27.4%)<sup>100</sup>.

In 2014-15, more women living in areas of most disadvantage in Australia were overweight or obese (first quintile; 61.1%) than women living in areas of least disadvantage (fifth quintile; 47.8%). For men there were no differences between areas of disadvantage. These patterns were similar to those of 2011-12<sup>101</sup>. Rates of overweight and obesity also varied by remoteness areas. In 2014-15, 61.1% of adults living in Major Cities were overweight or obese compared with 69.2% in Inner Regional Australia and 69.2% also in Outer Regional and Remote Australia. This pattern was consistent with that of 2011-12.

The prevalence of overweight and obesity in the Aboriginal and Torres Strait Islander population (aged 15 years and over) in 2012/13 was 66%, with 29% being overweight and 37% being obese. Aboriginal and Torres Strait Islander adults (aged 15 years and over) were reported to be 1.2 times more likely to be overweight, and 1.6 times more likely to be obese compared to the non-Indigenous population<sup>102</sup>.

---

<sup>95</sup> defined as a body mass index of 22.5kg/m<sup>2</sup> or greater

<sup>96</sup> Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

<sup>97</sup> Note that the Australian Institute of Health and Welfare has undertaken an Australian Burden of Disease Study which is more tailored to the Australian context, however, the Global Burden of Disease Study is cited here to enable comparison with New Zealand estimates.

<sup>98</sup> Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute of Health Metrics and Evaluation](#) (accessed 3 April 2018).

<sup>99</sup> Smith C, Gray A, Mainvil L, Fleming E and Parnell W. 2015. 'Secular changes in intakes of foods among New Zealand adults from 1997 to 2008/09'. *Public Health Nutrition*: 18(18), 3249-3259

<sup>100</sup> Australian Bureau of Statistics, 2015. 'National Health Survey: First Results, 2014-15'. Available at [Australian Bureau of Statistics](#) (accessed 22 June 2017).

<sup>101</sup> Australian Bureau of Statistics, 2015. 'National Health Survey: First Results, 2014-15'. Available at [Australian Bureau of Statistics](#) (accessed 29 March 2018).

<sup>102</sup> Australian Bureau of Statistics, 2014. Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results, 2012-13'. Available at: [Australian Bureau of Statistics](#) (accessed 5 August 2016)

The cost of obesity on society in Australia has been estimated to be \$8.6 billion (in 2014-15 dollars). This total figure includes \$3.8 billion in direct costs (e.g. clinical services, hospital care, pharmaceuticals) and \$4.8 billion in indirect costs (absenteeism, presentism, forgone taxes)<sup>103</sup>. The consultant PricewaterhouseCoopers (PwC) estimates that if no further action is taken to slow the growth of obesity, there will be 2.4 million more obese people in 2025 than in 2011-12 and \$87.7 billion in additional costs due to obesity to society over ten years (2015-16 to 2024-25).

## **New Zealand**

In New Zealand, high body mass index accounted for 8.89% of the total burden of disease in 2016, and was the leading risk factor contributing to total disease burden<sup>104</sup>. In New Zealand the total disease burden attributed to high body mass index has increased over time, in 1990 it accounted for 7.75% of the total disease burden, and as a risk factor it was ranked third in its contribution to disease burden after high blood pressure and smoking<sup>105</sup>. Obesity rates for adults are increasing in New Zealand, with more than three in ten adults (32%) obese in 2016-2017, up from 27% in 2006-07. In 2016-17 the prevalence of overweight (but not obese) adults aged 15+ was 34.4% or 1,318,000 individuals. Obesity rates in children have not changed significantly since 2011-12, with nearly 100,000 children aged 2-14 years (12.3%) classified as obese in 2016/17<sup>106</sup>. In the same year prevalence of overweight, but not obese, in children aged 2-14 years was 21% (or 169,000 individuals)

Obesity rates are strongly linked to socioeconomic deprivation, with the obesity rate for children living in the most deprived neighbourhoods being 2.5 times that of those living in the least deprived neighbourhoods. For adults the equivalent rate ratio is 1.5 times, after adjusting for age, sex and ethnic differences<sup>107</sup>. However, this inequality was more pronounced for extreme obesity rates (BMI  $\geq$  40), with adults living in the most deprived neighbourhoods 4.1 times more likely to be extremely obese than adults living in the least deprived neighbourhood<sup>108</sup>. Māori adults have higher obesity rates (50%) than non-Māori, with Māori children in particular having comparatively high rates of obesity (18%). Pacific adults and children have the highest rates of obesity. About two-thirds of Pacific adults (69%) and almost one-third of Pacific children (29%) are obese<sup>109</sup>.

---

<sup>103</sup> PriceWaterhouseCooper, 2015. 'Weighing the cost of obesity: A case for action'. Available at: [PwC](#) (accessed 3 April 2018)

<sup>104</sup> Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

<sup>105</sup> Institute for Health Metrics and Evaluation, 2015. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018)

<sup>106</sup> New Zealand Health Ministry of Health, 2016. 'Annual Update of Key Results 2016/17: New Zealand Health Survey'. Available at [New Zealand Ministry of Health](#) (accessed 24 April 2018).

<sup>107</sup> New Zealand Health Ministry of Health, 2016. 'Annual Update of Key Results 2016/17: New Zealand Health Survey'. Available at [New Zealand Ministry of Health](#) (accessed 24 April 2018).

<sup>108</sup> New Zealand Health Ministry of Health, 2016. 'Annual Update of Key Results 2015/16: New Zealand Health Survey'. Available at [New Zealand Ministry of Health](#) (accessed 14 July 2017).

<sup>109</sup> New Zealand Health Ministry of Health, 2016. 'Annual Update of Key Results 2016/17: New Zealand Health Survey'. Available at [New Zealand Ministry of Health](#) (accessed 24 April 2018).

## ***Dental caries in Australia and New Zealand***

### **Australia**

According to the Australian Dental Association, consumption of sugars is the main contributor to dental caries. Dental decay is estimated to affect up to five million people in Australia each year. Over 90% of Australian adults have experienced dental caries at some point in their lives<sup>110</sup>. The Australian Institute of Health and Welfare (AIHW) reports that during the 30 year period 1989-2007, 46% of children in Australia under the age of 6 had already experienced caries<sup>111</sup>. In 2010 (latest AIHW survey), six year olds had an average of 0.13 decayed, missing or filled permanent teeth, while 10 year olds had 0.73 and 15 year olds had 2.63<sup>112</sup>. Prevalence of dental caries experience and untreated dental caries in both primary and permanent teeth are 1.5 – 2.5 times higher in Aboriginal and Torres Strait Islander children compared with the national average<sup>113</sup>.

The direct costs of dental disease in Australia (expenditure by individuals and governments on dental services) was estimated to be \$7.690 billion in 2009–10<sup>114</sup>. In 2015-16, an estimated \$9.9 billion was spent on oral health<sup>115</sup>.

### **New Zealand**

In New Zealand, despite improvements in oral health over time, dental caries remain the most prevalent chronic (and irreversible) disease. The 2009 Our Oral Health survey<sup>116</sup> (latest data available) found large improvements in oral health had occurred for children since the 1980s, with the proportion of 12–13-year-olds who were caries-free almost doubling between 1988 (28.5%) and 2009 (51.6%). The oral health of most preschool children (aged 2–4 years) was also relatively good, with four in five (79.7%) 2–4-year-olds were caries-free in their primary teeth.

---

<sup>110</sup> Australian Health Policy Collaboration and the Australian Dental Association, 2018. 'Australia's Oral Health Tracker Technical Paper'. Available at: [Oral Health Tracker](#) (accessed 3 April 2018).

<sup>111</sup> Australian Institute of Health and Welfare (AIHW) 2012. 'Child Dental Health Survey Australia 2007 – 30 year trends in child oral health'. Available at [Australian Institute of Health and Welfare](#) (accessed 22 August 2016).

<sup>112</sup> Australian Institute of Health and Welfare 2015, 'Oral health and dental care in Australia 2015'. Available at: [Oral health and dental care in Australia](#) (accessed 3 May 2018).

<sup>113</sup> Australian Health Policy Collaboration and the Australian Dental Association, 2018. 'Australia's Oral Health Tracker Technical Paper'. Available at: [Oral Health Tracker](#) (accessed 3 April 2018).

<sup>114</sup> National Advisory Council on Dental Health 2012. 'Report of the National Advisory Council on Dental Health', available at: [Department of Health website](#) (accessed 29 March 2018)

<sup>115</sup> Australian Health Policy Collaboration and the Australian Dental Association, 2018. 'Australia's Oral Health Tracker Technical Paper'. Available at: [Oral Health Tracker](#) (accessed 3 April 2018).

<sup>116</sup> Ministry of Health, 2010. 'Our Oral health: Key findings of the 2009 New Zealand Oral Health Survey'. Available at [New Zealand Ministry of Health](#) (accessed 23 August 2016).

**Australia and New Zealand preventive health initiatives relating to sugars:****Initiatives working with the Food Industry**

Type of Policy/Program	Jurisdiction	Description summary	Target audience
Healthy Food Partnership	Australian Government	<p>A joint initiative between government, food industry bodies and public health groups focusing on increased health knowledge, healthier choices and better health outcomes for the Australian population. The focus of the Partnership includes:</p> <ul style="list-style-type: none"> <li>• Portion Control – promoting and communicating information about appropriate portion sizes and consumption of portion sizes that align with the Guidelines;</li> <li>• Communication, education and meal planning on whole foods and total diet – based on the Australian Dietary Guidelines (including limiting intakes of added sugars; and</li> <li>• Reformulation activities optimising the appropriate balance of nutrients and ingredients in food in manufactured foods, including added sugars.</li> </ul>	All Australians
Healthy kids industry pledge	New Zealand Government-Ministry of Health	<p>The Healthy kids industry pledge involves partnerships with the food and beverage industry to make commitments that will make a contribution to reducing the incidence of childhood obesity.</p> <p>The overarching pledge includes commitments to healthy product reformulation, labelling, education, marketing, addressing health inequalities and communication and public reporting.</p> <p>Companies and industry groups already committed include the New Zealand Food and Grocery Council, Coca-Cola, McDonalds NZ, Nestle, Fonterra, Retail NZ and the Association of New Zealand Advertisers.</p>	New Zealand Children

### **Resources focusing on sugar-sweetened drinks**

<b>Type of Policy/Program</b>	<b>Jurisdiction</b>	<b>Description summary</b>	<b>Target audience</b>
Sugary Drinks - Healthy Bodies Need Healthy Drinks	Australian Government	This resource package promotes healthy drink choices and discourages excessive consumption of sugar-sweetened drinks among Aboriginal and Torres Strait Islander school aged children, their families and communities. The amounts of natural and added sugars in milk drinks and fruit juice are included as a comparison with high added sugars beverages. Teaspoon measures are used to depict a drink's sugar content.	Aboriginal and Torres Strait Islander peoples
Swap Soft Drinks for Water initiative	Northern Territory	Provides information sheets and promotional resources on replacing soft drinks with water for use by different health promotion sectors including schools, child care, community groups, stores, council (through Sport and Recreation Officers) and health centres.	All ages
Good Habits for Life – Sugar Swap Challenge (delivered in 2016)	ACT	Online resources and advice for families to recognise added sugars in their food and drinks, and to ‘swap them out’ for healthier alternatives for one month. Includes an online sugar swap game for children.	Parents and carers with children 0 - 8 years.
100% water resources Health Promotion	New Zealand	Sugary drink infographics and suite of ‘100% Water’ posters. Also available are Player of the Day certificates.	All consumers
Move Well Eat Well early childhood and primary school program	Tasmania	Includes a ‘Think before you drink’ poster promoted through the Move Well Eat Well early childhood and primary school programs – promoting water as main drink and clarifies naturally occurring sugar in milk versus fruit juice.	Children aged 0 – 12 years



## Social Marketing

Type of Policy/Program	Jurisdiction	Description summary	Target audience
Live Lighter campaign	Australian State and Territory jurisdictions (WA, ACT, VIC and NT) implement this campaign (developed in WA)	Aims to increase knowledge about healthy eating, physical activity and healthy weight. Phase two and three of the campaign delivered at the end of 2015 and throughout 2016 focused on avoiding sugary drinks. Promotion includes mass media, advertising, social media, online and printed resources, advocacy and retailers. Online resources includes sugar related education material on avoiding sugary drinks and tips to cut back on added sugars in the diet.	Adults and parents of children 0 - 12 years
Make Healthy Normal campaign	NSW	The Make Healthy Normal campaign aiming to support healthy eating and active living in NSW, includes targeted consumer messaging to replace sugar sweetened beverages with water as part of the key campaign message ' <i>Make Water Your Drink</i> '.	NSW population
Family Food Patch – You Tube clips sugar in drinks	Tasmania	State-wide promotion through the family Food Patch peer education program. Includes you-tube educational videos designed for peer food educators and communities.	All ages
Big Changes Starts Small	New Zealand	National social marketing campaign run by New Zealand Health Promotion Agency (Nov-Dec 2015) and June-July 2017.	All ages
Healthier Happier Campaign	Queensland	Social marketing campaign including a website, TVC, social media. Key messages of campaign include: <ol style="list-style-type: none"> <li>1. Add fruit and veg to your meal;</li> <li>2. Have smaller portion sizes;</li> <li>3. Cut back on sugary drinks;</li> <li>4. Less sitting and more moving; and</li> <li>5. Choose healthier when eating out.</li> </ol>	All ages

### **Settings based food and drink policies**

<b>Type of Policy/Program</b>	<b>Jurisdiction</b>	<b>Description summary</b>	<b>Target audience</b>
Healthy food and drink policies in Government work places and public facilities	All Australian States and Territories (with the exception of Tasmania), and New Zealand	<p>Mandatory and voluntary policies for food service facilities, including cafeterias, kiosks, and vending machines in government run facilities including public schools, public health sites such as hospitals, health centres, recreation centres, public events and sports facilities. Policies include limiting/restricting the availability of unhealthy foods and drinks (including those high in added/total sugar) and increasing the availability of healthy food. Implementation is varied according to local health districts and jurisdictions.</p> <p>Some jurisdictions include additional guidelines for:</p> <ul style="list-style-type: none"> <li>• fundraising, advertising and sponsorship;</li> <li>• workplace health education programs; and</li> <li>• Guidelines for retail food outlets (e.g. cafeterias, cafes, coffee shops - implemented by WA, Victoria and SA).</li> </ul>	Staff working at these facilities and visitors
Healthy eating guidelines for government schools	Australian Government, Australian States and Territories	<p>Canteen guidelines in school settings, based on a traffic light food categorisation system (green, amber, red) which ranks foods according to their nutritional value. Foods and drinks high in sugar are categorised as RED and are banned (or discouraged in Tasmania) from sale in school canteens, vending machines and preschools. These are generally supported by the Catholic and independent school sectors. NSW has recently released a new Policy Framework categorising foods as according to the Australian Dietary Guidelines concepts of Core(Everyday)/Discretionary (Occasional), supported by the use of HSR to select healthier versions of some foods. In the NSW policy, sugary drinks should not be sold. The current Healthy Tasmanian Five Year Strategic Plan expects all Government schools to commence a process to achieve canteen accreditation by 2020.</p> <p>A number of jurisdictions include additional policy guidelines for food provided in school settings for curriculum activities, sporting events, camps, excursions, homework centres, out of school hours care, student rewards or behaviour management programs.</p>	School children

Type of Policy/Program	Jurisdiction	Description summary	Target audience
Healthy Food Provision in early childhood settings	Australian Government, States and Territories	Guidance on healthy eating (and physical activity) specific for early childhood (0-5 years) care settings, based on recommendations in the Australian Dietary Guidelines – including limiting the amount of added sugar.	All children in organised care aged 0-5 years
Fuelled4 Life	New Zealand	Managed by the Heart Foundation is a Food and Beverage Classification System (using ‘everyday’ or ‘sometimes’ categorisation) designed specifically for foods and beverages children commonly consume in an education setting.	School and preschool aged children
Healthy Lifestyles – Drink Water promotion	New Zealand	Encouraging all schools in NZ to provide water and plain milk only. Includes infographic posters and guidance on how to implement plain water drink policy in schools.	School children
The Victorian Healthy Eating Enterprise (VHEE)	Victoria	A coordinated platform to support healthy eating targeting state-wide and local organisations and workforce (beyond the health sector) promoting access to nutritious food in Victoria. Priority areas: <ul style="list-style-type: none"> <li>- Increasing fruit and veg;</li> <li>- Reducing Sugar-Sweetened beverages; and</li> <li>- Increase access to nutritious food.</li> </ul>	Non-government organisations, local government, community and health services, sport and recreation health professionals and food relief organisations.
Healthy Eating Advisory Service	Victoria	A state service providing practical support to key settings and organisations to meet Government nutrition policies and guidelines. This service includes an online product/recipe/menu assessment tool called <a href="#">Food-Checker</a> .	Schools, early years services, workplaces, sport and recreation centres and health services.

Type of Policy/Program	Jurisdiction	Description summary	Target audience
Premier's Healthy Kids Menus Initiative	South Australia	<p>Aims to increase the provision of and access to, healthy menu options for children in SA restaurants, cafes, hotels and clubs. Criteria specific to sugar reduction include:</p> <ul style="list-style-type: none"> <li>• Free tap water is easily accessible;</li> <li>• Meal deals do not include soft drinks containing sugar or artificial sweeteners; and</li> <li>• Guidance on desserts on the menu.</li> </ul> <p>To be voluntarily adopted by industry (restaurants, cafes, hotels, clubs) in South Australia. The draft Code will be finalised in August 2017.</p>	Children
Healthy Children Initiative	NSW	<p>Provides training and resources to promote healthy eating and physical activity to children and their families in early childhood, school and community settings.</p> <p>Key program messages encourage the consumption of water over sugar sweetened drinks and discourage the consumption of foods with added sugars.</p>	Children aged 0-16 years