

Policy Paper: Labelling of sugars on packaged foods and drinks

June 2019

Contents

Glossary	1
Executive summary.....	3
Introduction.....	18
Background.....	19
1 Statement of the problem	21
1.1 About sugars.....	22
1.2 Health impacts of excessive added sugars consumption	22
1.3 Recommendations about intake of sugars in Australia, New Zealand and internationally.....	24
1.4 Intakes of added sugars in Australia and New Zealand and associated health outcomes.....	25
1.5 Labelling for informed choice.....	26
1.6 Current labelling requirements in relation to sugars.....	26
1.7 Consumer knowledge, attitudes and behaviours relating to sugars.....	29
1.8 Other sources of information about added sugar content of foods in Australia and New Zealand	30
1.9 Current actions that are underway to support reducing intakes of sugars	31
2 Objectives	33
3 Statement of options	34
Option 1: Status quo.....	34
Option 2: Education on how to read and interpret labelling information about sugars	34
Option 3: Change to statement of ingredients.....	36
Option 4: Added sugars quantified in the NIP	38
Option 5: Advisory labels for foods high in added sugars.....	40
Option 6: Pictorial approaches to convey the amount of sugars in a serving of food	43
Option 7: Digital linking to off label web-based information about added sugars content.....	45
4 Consultation on the proposed options	48
4.1 Consultation process	48
4.2 Overall consultation themes.....	48
4.3 Other options	51
5 Assessment of the options.....	52
5.1 Assessment of the options against the desired outcome.....	52
6 Benefits and impact analysis.....	58
6.1 Benefits	58
6.2 Impacts.....	61
6.3 Food products for which the feasible options would apply.....	64
6.4 Combinations of the feasible options.....	66

7	Evaluation and conclusion	67
7.1	Net benefit	67
7.2	Option with greatest potential	68
8	Implementation and next steps	69
8.1	Implementation.....	69
	Attachment A – Added sugars intakes in Australia and New Zealand	71
	Attachment B – Australia and New Zealand preventive health initiatives relating to sugars...	77
	Attachment C – Stakeholder feedback from consultation.....	82

Glossary

Terms	Descriptions
Added sugars	For the purpose of this paper this 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, the term 'added sugars' may include what are referred to as 'free sugars' such as honey.
Advisory label	A label that must be provided for certain foods or ingredients which may cause health risks for some consumers.
Ministerial Forum on Food Regulation (Forum)	The Ministerial body responsible for developing domestic food regulation policy in the form of policy guidelines. Forum Members are the decision makers in the system. The Forum signs off on all food standards and can also request that a draft standard be developed, reviewed, amended or rejected.
Citizen Space	An online consultation platform used to seek stakeholder feedback on labelling options for sugars. Consultation operated from July to September 2019.
Contextual information	Information that can support consumers to use and interpret a food label.
Dental caries	The scientific term for tooth decay or cavities.
Dietary Guidelines	Refers to both the Australian Dietary Guidelines and New Zealand Eating and Activity Guidelines, unless otherwise specified.
Discretionary foods	Foods not necessary for a healthy diet and are too high in saturated fat and/or added sugars, added salt (sodium) or alcohol.
Feasible option	Proposed options with the strongest potential to achieve the desired outcome of this work.
Food	For the purpose of this paper, 'food' refers to foods and drinks
Food Regulation Standing Committee (FRSC)	Body responsible for coordinating policy advice to the Forum and ensuring a nationally consistent approach to the implementation and enforcement of food standards.
Food Standards Australia New Zealand (FSANZ)	A statutory authority in the Australian Government Health portfolio that develops food standards for Australia and New Zealand.
Free sugars	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.
Health Star Rating (HSR) System	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.
HSR algorithm	Developed by technical and nutrition experts to assess positive and risk nutrients in a food. This sits behind a calculator to determine the number of stars.

Terms	Descriptions
HSR five year review	A formal review of the HSR system, for reporting 5-years after the introduction of the HSR system.
Intrinsic sugars	Naturally occurring sugars, or sugars contained within unprocessed foods. Found in fruits, vegetables and dairy products.
Non-communicable disease	A medical condition or disease that is by definition non-infectious and non-transmissible among people.
Option with the greatest potential	The option that best meets the desired outcome and provides a positive net benefit
Proposed option	Options that may address the statement of the problem and achieve the desired outcome of this work. Feedback on six proposed options (in addition to the status quo) was sought from stakeholders from July to September 2019.
Reformulation	Changing the nutrient content of a processed food product to either reduce the content of negative nutrients such as sodium, saturated fat, trans fat or energy (kilojoules) or to increase the content of beneficial nutrients such as dietary fibre, wholegrains, fruit, vegetables and unsaturated fats.
Sugars-based ingredient	This term would be defined as an implementation detail. As an example, in Canada sugars-based ingredient means: (a) an ingredient that is a monosaccharide or disaccharide or a combination of these; (b) an ingredient that is a sweetening agent other than one referred to in paragraph (a); and (c) any other ingredient that contains one or more sugars and that is added to the product as a functional substitute for a sweetening agent.
Sugar-sweetened beverage	This term would be defined as an implementation detail. An example definition is from Australian Bureau of Statistics analysis of food consumption data the 2011-12 Australian Health Survey where sugar-sweetened beverages were defined to be ' <i>cordials, soft drinks and flavoured mineral waters, energy and electrolyte drinks, fortified waters, and fruit and vegetable drinks</i> (noting this definition excludes 100% fruit and vegetable juice) <i>that contain added sugar</i> '.
Sugary drinks	This term would be defined as an implementation detail. An example definition is used in the New Zealand Labelling of Sugary Beverages (Displaying Teaspoons of Sugar) Bill where the term 'sugary drinks' includes any beverage to which the manufacturer has added sugar or which naturally contains sugar. The Bill notes this includes beverages such as juice but excludes beverages such as standard alcoholic beverages and infant formulas.
Total sugars	The total amount of sugars in a product, from both added sugars and naturally occurring (intrinsic) sugars.

Executive summary

Introduction

This policy 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 provide advice on policy options for labelling of sugars on packaged foods and drinks for sale in Australia and New Zealand.

This policy paper is a follow-up to the Consultation Regulation Impact Statement (CRIS): *Labelling of sugars on packaged foods and drinks* which was released for public consultation from July to September 2018. Over 160 submissions to the consultation were received from stakeholders including the food industry, public health sector, academics, consumer advocates and members of the public.

This paper draws upon research and feedback from the stakeholder consultation.

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 sugars¹ 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 the 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 WHO recommended limit for consumption of 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.

¹ 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.

5. Food labelling is intended to enable consumers to make informed choices and support public health objectives.
6. Food labels currently provide limited and/or unclear information about which foods contain added sugars.
7. Consumer research in relation to the understanding of sugars and food labelling suggests that:
 - consumers are confused about how much sugars they should be consuming;
 - consumers may not be able to determine whether a single product is high or low in sugars; and
 - consumers can be confused about what added sugars are 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 the lack of information on 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 has proposed 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.

In this situation, 'contextual information' refers to information that can support consumers to use and interpret a food label.

As a range of factors 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

Six options (in addition to the status quo) were proposed to achieve the desired outcome. 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 this 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 any 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.

Stakeholder views in relation to the proposed options

Public consultation was undertaken from 19 July to 21 September 2018. The consultation involved inviting submissions from stakeholders to a series of 36 questions in a Consultation Regulation Impact Statement (CRIS) on labelling of sugars on packaged foods and drinks.

A total of 166 submissions were received. Table 1 provides an overview of submissions received and Table 2 provides an overview of the support from stakeholders in relation to the proposed options. Table 2 is colour coded to provide an at-a-glance indication of support from the various stakeholder sectors.

Table 1. Submissions to the stakeholder consultation

	Australia	New Zealand	Bi-National	Not specified	Total
Individuals	23	43	0	8	74
Food industry	14	8	9	0	31
Public Health	22	27	1	0	50
Governments	5	2	0	0	7
Others	2	2	0	0	4
Total	68	82	8	8	166

Table 2. Overview of stakeholder support for the proposed options

Option	Food industry	Public health	Consumers	Governments	Others
Option 2 – Education on how to read and interpret labelling information about sugars	Supported	Did not support (as a stand-alone option)	Did not support (as a stand-alone option)	Did not support (as a stand-alone option)	Did not support (as a stand-alone option)
Option 3 – Change to statement of ingredients	Did not support	Supported/ Supported in combination with another option	Mixed views	Mixed views	Supported in combination with another option
Option 4 – Added sugars quantified in the NIP	Mixed views	Supported	Supported / Partially supported	Supported	Supported
Option 5 – Advisory labels for foods high in added sugars	Did not support	Mixed views	Mixed views	Did not support	Supported
Option 6 – Pictorial approaches to convey the amount of sugars in a serving of food	Did not support	Mixed views	Supported	Did not support	Supported
Option 7 – Digital linking to off label web-based information about added sugars content	Supported	Did not support	Did not support	Did not support	Did not support

Assessment of the options

Each of the proposed options was assessed to consider the extent to which they could achieve the desired outcome. The assessment of the options took into account information provided through stakeholder consultation as well as additional research and critical analysis. To assist in this assessment, criteria were developed to compare and rank the options. These criteria are detailed in Table 3.

Table 3. Criteria to assess the proposed options

Criteria	Description
Dietary guidelines	Considers how well the option supports the dietary guidelines. Australian Dietary Guidelines - Limit intake of foods containing saturated fat, added salt, added sugars and alcohol. New Zealand Eating and Activity Guidelines – Choose and/or prepare foods and drinks with little or no added sugars.
	Considers how well the option supports a whole-of-diet approach as opposed to over-emphasising a single nutrient. This includes whether the labelling option would ‘push off’ more whole-of-diet type information from the food label.
Contextual information	Considers whether the option provides information that can support consumers to use and interpret sugars information on the food label. This includes the ability to compare foods.
Consumer understanding	Considers how well the option is understood by consumers (including those with low literacy or numeracy or technological literacy). Considers simplicity of message and ease of access to information on the label at point-of-sale.
New information	Considers whether the option delivers sugars information that is not currently available to the consumer

Table 4 presents an analysis of each of the proposed options against the assessment criteria. The criteria were rated according to green, amber or red to reflect the extent to which each option achieved these criteria (with green indicating that the criteria was well met, amber indicating the criteria was somewhat met and red indicating the criteria was poorly met). Options that were rated red in at least one criterion were not considered feasible options and not considered further.

This assessment of the options identified Option 4 (added sugars quantified in the NIP) could best achieve the desired outcome. The options least likely to achieve the desired outcome are Option 1 (status quo), Option 2 (education) and Option 7 (digital linking to off label web-based information).

Table 4. Extent to which each option can achieve the desired outcome

	Dietary Guidelines	Contextual information	Consumer understanding	New information
Option 1 – Status quo	Some food manufacturers voluntarily declare the added sugars content of their foods. However, most food labels do not support consumers to easily identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines).	Some labelling elements such as the Health Star Rating (HSR) and %Daily Intake (%DI) may support consumers to use and interpret sugars information on the food label. However, this contextual information is focused on total sugars.	There is some evidence of consumer confusion when interpreting food labels in relation to sugars under status quo ² .	The status quo is focussed on existing information.
Option 2 – Education on how to read and interpret labelling information about sugars	Without information on added sugars being provided on food labels, the potential for this education campaign may be limited. An education campaign strategy could encourage consumers to take a whole-of-diet approach when evaluating a food product.	Information that can support consumers to use and interpret a food label may be provided through an education campaign. However, Option 2 would only be able to give general advice. Therefore this option does not allow comparison between products.	Education may have some impact on consumer understanding of food labels in relation to added sugars ³ , but the potential of this option is limited as it can only provide general advice and is time limited. Furthermore, this information will not be available at the point of sale. Unless the campaign is sufficiently tailored, it may not reach the most vulnerable groups in the population.	Option 2 will not be providing new information to consumers.

² Food Standards Australia New Zealand, 2017. 'Consumer Label Survey 2015 – Food labelling Use and Understanding in Australia and New Zealand, Food Standards Australia New Zealand'. Available at: [FSANZ website](https://www.foodstandards.gov.au/foodlabelling/foodlabellinguseandunderstanding) (accessed 17 December 2018)

³ Miller, L. & Cassidy, D., 2015. 'The effects of nutrition knowledge on food label use. A review of literature'. *Appetite*, 92: p207-216

	Dietary Guidelines	Contextual information	Consumer understanding	New information
Option 3 – Change to statement of ingredients to overtly identify sugars-based ingredients	Allows consumers to identify products containing added sugars (Australian dietary guidelines). In respect to the New Zealand dietary guidelines, it will allow for identifying foods with no added sugars however is unlikely to assist with identifying foods with little added sugars. Option 3 may emphasise added sugars over other negative nutrients identified in dietary guidelines. Should not result in significant additional labelling information (i.e. more words) and therefore should not necessitate the removal of other more holistic information.	Option 3 would provide information about the relative contribution of added sugars in the context of other ingredients. It would allow consumers to compare the relative amounts of added sugars to other ingredients within a food; however it would not allow consumers to identify whether a food has a high, medium or low added sugars content. Option 3 would not allow for comparisons of added sugars content between foods.	Option 3 should make identification of added sugars in a food easier at the point of sale. Option 3 would require a degree of literacy and time to identify the presence of added sugars amongst other ingredients declared.	Option 3 would provide some additional information to make identifying added sugars easier.
Option 4 – added sugars quantified in NIP	Would allow consumers to identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines). Does not over-emphasise added sugars above other risk nutrients. Minimal label change and is unlikely to necessitate removal of	Allows consumers to understand how much of a product's total sugars content is derived from added sugars ⁴ .	Incorporating added sugars into the NIP would make this information available to consumers at the point of sale. The prescribed format and standardised units of the NIP allows for product comparison. Inclusion of added sugars as a separate element on a NIP may lead some consumers to be	Option 4 provides new information on a food label as few food manufacturers currently quantify the amount of added sugars in a food product.

⁴ Vanderlee, L., et al, 2015, 'The efficacy of sugar labelling formats: Implications for labeling policy'. *Obesity*, 23: p2406-2413.

	Dietary Guidelines	Contextual information	Consumer understanding	New information
	other more holistic label information.		confused ^{5,6} . However, NIP format and wording influences consumer understanding ⁷ .	
Option 5 – Advisory labels for foods high in added sugars	Foods containing added sugars below the threshold will not be required to display the advisory label. Consumers may not be able to identify foods containing added sugar (Australian dietary guidelines) or foods with little or no added sugars (New Zealand dietary guidelines). Advisory label for added sugars place a significant emphasis of sugars and do not consider other nutrients such as sodium or saturated fat. May result in a lower uptake or removal of the HSR.	Option 5 provides some contextual information, as it provides an assessment of products that are high in added sugars, therefore removing consumer need to interpret information about added sugars. However, comparison between products is limited to between those displaying and not displaying the advisory label.	Option 5 does not require numerical calculations or an interpretation against recommendations and therefore consumer understanding is expected to be very high.	Option 5 provides new information about foods that are high in added sugars.
Option 6 – pictorial approaches	Could allow consumers to identify products containing added sugars (Australian dietary guidelines) and	Depends on the pictorial approach taken. Option 6 provides some contextual	Depending on the pictorial approach taken, the information may be immediately apparent to	If the pictorial approach for Option 6 related to or included added sugars, then it could

⁵ Laquatra, I., et al, 2015. 'Including "added sugars" on the Nutrition Facts panel: how consumers perceive the proposed change'. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

⁶ 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).

⁷ Laquatra, I., et al, 2015. 'Including "added sugars" on the Nutrition Facts panel: how consumers perceive the proposed change'. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

	Dietary Guidelines	Contextual information	Consumer understanding	New information
to convey the amount of sugars in a serving of food	<p>products with little or no added sugars (New Zealand dietary guidelines).</p> <p>Places significant emphasis on sugars which does not support a hole-of-diet approach.</p> <p>Option 6 has the potential to result in the removal of more holistic information from the food label, such as the HSR.</p>	<p>information on added sugars or total sugars, by representing it in a relatable format.</p> <p>Option 6 supports consumers to compare products at the point of sale, and potentially without even taking the product off the shelf, if the label is highly visible and front-of-pack.</p>	<p>consumers and relatable. Pictorial labelling, especially if in teaspoon form, is more accessible to a wide audience than more traditional forms of nutritional labelling as requires less numeracy and literacy skills. However, this may also confuse consumers if the sugars content is high and a high (good) HSR is displayed alongside it.</p>	<p>provide new label information. Few food manufacturers quantify added sugar in a food product, and even fewer do so in a pictorial form.</p> <p>If Option 6 instead illustrated total sugars, this would not offer new information.</p>
Option 7: Digital linking to off label web-based information about added sugars content	<p>Potential to be consistent with advice from the dietary guidelines, however this is dependent on implementation details.</p> <p>The website information has the potential to provide holistic whole of diet information. However, the digital link (e.g. website or QR code) may occupy some of the limited space on a food label and necessitate removal of other more holistic food labelling information.</p>	<p>There is potential for Option 7 to provide considerable contextual information given a website landing page does not have the same limited space restrictions as a food label.</p> <p>It may be challenging for consumers to easily compare the sugars content of different food products if they need to visit multiple websites.</p>	<p>Option 7 relies on consumers having compatible smart phones, internet access and technological literacy and therefore may not be widely understood and accessible to all consumers and at the point of sale.</p>	<p>Provided consumers have the skills and motivation to access the digital information, Option 7 has potential to present new information about sugars.</p>

Benefit and impact analysis

A high level qualitative analysis of the benefits and impacts of the feasible options (Options 3, 4, and 6) was undertaken. Feedback provided through the consultation process informed the benefit and impact analysis. Table 5 below summarises the impacts of the feasible options.

Table 5. Impacts of the feasible options

Benefits	Option 3 – Change to statement of ingredients	Option 4 – Added sugars quantified in the NIP	Option 6 – Pictorial approaches to convey the amount of sugars in a serving of food
Information for consumers Benefit to consumers in Australia and New Zealand by providing additional contextual information in relation to sugars to better enable them to make informed choices in support of the dietary guidelines.	<ul style="list-style-type: none"> Supports consumers' ability to understand what added sugars are, identify added sugars in the statement of ingredients and assess the relative contribution of added sugars to a food compared to other ingredients. 	<ul style="list-style-type: none"> Supports consumers to assess the amount of added sugars in the food and compare products. 	<ul style="list-style-type: none"> Supports consumers to quickly assess the amount of added sugars in products and compare similar products without having to read and interpret the NIP.
Food reformulation Encouraging reformulation of products to reduce the sugars content. Changes to the food supply can benefit the whole population rather than those with the education and skills to read a food label.	<ul style="list-style-type: none"> If bracketed list, potential for manufacturers to reduce total amount of sugars so that sugars 'move down' in the statement of ingredients. If sugars are identified through asterisks or boldening, there is potential for manufacturers to reduce the number of types of 	<ul style="list-style-type: none"> Strong potential for reformulation of products to reduce the sugars content. 	<ul style="list-style-type: none"> Strong potential for reformulation of products to reduce the sugars content.

	sugars rather than total sugars content.		
Support for the public health sector Includes supporting: <ul style="list-style-type: none"> Programs, policies and campaigns that aim to promote the dietary guidelines to the public; clinicians educating their patients; and work to monitor trends in food composition and consumption in relation to added sugars. 	<ul style="list-style-type: none"> Supports clinicians. Supports programs and campaigns that aim to promote the dietary guidelines to the public. 	<ul style="list-style-type: none"> Supports clinicians. Supports programs and campaigns that aim to promote the dietary guidelines to the public. Enables added sugars to be incorporated into the HSR algorithm. Provides data to monitor and evaluate. 	<ul style="list-style-type: none"> Supports clinicians. Supports programs and campaigns that aim to promote the dietary guidelines to the public.
Healthy food choices Providing information to support consumers to make food choices in line with the dietary guidelines may contribute to supporting consumers to make healthier food choices.	<ul style="list-style-type: none"> May support consumers to make healthier choices. 	<ul style="list-style-type: none"> May support consumers to make healthier choices. 	<ul style="list-style-type: none"> May support consumers to make healthier choices. Accessible to all consumers due to the simplicity and visual nature of this option.
Impacts	Option 3 – Change to statement of ingredients	Option 4 – Added sugars quantified in the NIP	Option 6 – Pictorial approaches to convey the amount of sugars in a serving of food
Impact on the food industry Costs associated with labelling changes including label re-design, quantification of added sugars content, changing other elements of the label, printing costs, changing record keeping systems, obtaining information from ingredient suppliers and updating websites.	<ul style="list-style-type: none"> Minor changes to existing elements of the food label and are less likely to require a major label re-design. May impact on trade opportunities. 	<ul style="list-style-type: none"> Minor changes to existing elements of the food label and are less likely to require a major label re-design. Costs associated with quantifying added sugars in foods. 	<ul style="list-style-type: none"> High label re-design and associated costs due to label space occupied by pictorial approaches. Costs associated with quantifying added sugars in foods. May impact on trade opportunities.

Includes a potential impact on trade opportunities as Australia and New Zealand labelling requirements may differ from international jurisdictions.		<ul style="list-style-type: none"> • May impact on trade opportunities. 	
Impacts on other elements of a food label Given that a food label is a limited space, it is possible that new sugars information may impact on other voluntary elements of food label.	<ul style="list-style-type: none"> • Minor changes to existing elements of the food label and are least likely to impact on other elements of the food label. 	<ul style="list-style-type: none"> • Minor changes to existing elements of the food label and unlikely to impact on other elements of the label. • May result in voluntary information from the NIP, being removed. 	<ul style="list-style-type: none"> • Most likely to result in other information being removed from the food label due label space occupied by pictorial approaches.
Impacts on Government regulators Impact on regulators responsible for enforcement of food labelling and/or consumer information. Approach for verifying a food's added sugars content needs to be determined.	<ul style="list-style-type: none"> • May increase enforcement and compliance activities. • Not required to verify food's added sugars content. 	<ul style="list-style-type: none"> • May increase enforcement and compliance activities. • Required to verify food's added sugars content. 	<ul style="list-style-type: none"> • May increase enforcement and compliance activities. • Depending on the approach taken, regulators may be required to verify food's added sugars content.
Impacts on consumer understanding May lead some consumers to place too much emphasis on added sugars at the expense of other negative nutrients. May lead consumers to believe that added sugars were chemically different to intrinsic sugars, or have a different energy (kilojoule) content.	<ul style="list-style-type: none"> • Added sugars emphasised more than sodium and saturated fat. • May also cause confusion with allergen labelling. 	<ul style="list-style-type: none"> • Potential for consumer confusion about foods' total sugars content. • Added sugars not emphasised more than sodium and saturated fat. 	<ul style="list-style-type: none"> • Added sugars strongly emphasised more than sodium and saturated fat.

Food products for which the feasible options would apply

Some foods make a greater contribution to intakes of added sugars. Option 3 (statement of ingredients) and Option 4 (added sugars in the NIP) should apply to all foods as the statement of ingredients and NIP are already required on most food labels in a consistent format to allow comparison of food products. Changing these labelling elements for sugars on some foods, but not all, may be confusing to consumers and restrict the opportunity for compare products. Stakeholder support was strongest for applying Option 3 and Option 4 to all foods.

For Option 6 (pictorial approaches), there was strong support from non-industry stakeholders to apply Option 6 only to sugary beverages / sugar-sweetened beverages. The reasons for this position were:

- low uptake of the HSR star icon across non-alcoholic beverage products and therefore lower risk that pictorial labelling would compete for space with the HSR and potential conflict between the two labelling approaches; and
- there is less risk that the pictorial labels would detract consumers' attention from other nutrients such as sodium and saturated fat as these nutrients are less relevant for sugary beverages / sugar-sweetened beverages

This suggestion warranted further consideration as many of the potential negative impacts of Option 6 can be reduced if Option 6 is applied only to sugary beverages / sugar-sweetened beverages and these beverages are the main source of added sugars in the diet and there is strong evidence they are positively associated with body weight or obesity.

Submissions from the food industry provided suggestions for food product categories that should be excluded from sugars labelling. Categories suggested included alcoholic beverages and 'special purpose foods' under Part 2.9 of the Australia and New Zealand Food Standards Code. The issue of exemptions for particular foods or food categories will be considered further as part of the implementation of any option(s).

Combinations of the feasible options

Combining Option 4 with Option 3 was not seen to enhance the effectiveness of Option 4. If added sugars are quantified in the NIP there would be no need to more clearly identify added sugars in the ingredients list to achieve the desired outcome of this work.

Combining Option 4 with Option 6 offers the potential to improve consumer understanding and increase access to sugars information to consumers with poor numeracy skills. However, the risks associated with the prominence and focus on sugars with Option 6 remain. If Option 6 applies only to sugary beverages / sugar-sweetened beverages, then this combination offers potential.

Net benefit

A high-level qualitative analysis of the impacts was undertaken to determine which of the feasible options is likely to have the greatest net benefit. Because feedback from the consultation indicated there is merit in considering Option 6 if it is applied only to sugary beverages / sugar-sweetened beverages, this option was therefore also assessed.

A quantitative economic analysis of the costs and benefits was not undertaken, however it is anticipated this would be performed before implementation of any changes to food labelling in relation to sugars. No weighting was given to the analysis of the impacts as it is only a high-level assessment of the feasible options.

A score between 1 and 3 was assigned to each of the costs and benefits for the feasible options; a score of 3 represented a strong cost or benefit. Table 6 presents the assigned scores.

This high-level qualitative benefit and impact analysis indicated that Option 4 and Option 6 (applied only to sugary beverages / sugar-sweetened beverages) offers the greatest net benefit as the costs do not outweigh the benefits.

Table 6. Assessment of impacts of the feasible options

	Option 3 (Statement of ingredients)	Option 4 (Added sugars quantified in the NIP)	Option 6 (Pictorial approaches - if applied to all foods)	Option 6 (Pictorial approaches - if applied only to sugary or sugar-sweetened beverages)
Benefits				
Information for consumers	1	2	3	3
Food reformulation	1	3	3	2
Public health sector	1	3	2	2
Healthy food choices	2	2	3	3
<i>Sum of benefits</i>	<i>5</i>	<i>10</i>	<i>11</i>	<i>10</i>
Impacts				
Impact on food industry	1	2	3	1
Impacts on food label	1	1	3	2
Impacts on food regulators	1	2	2	2
Impacts on consumer understanding	3	1	3	2
<i>Sum of costs</i>	<i>6</i>	<i>6</i>	<i>11</i>	<i>7</i>
<i>Net benefit</i>	<i>-1</i>	<i>+4</i>	<i>0</i>	<i>+3</i>

Option with greatest potential

This preliminary analysis of the policy options has identified that Option 4 has the greatest potential as it best meets the desired outcome and provides a positive net benefit.

Costs associated with Option 4 are minimised as it draws on an existing element of the food label, the NIP, so therefore it is unlikely to necessitate major label redesign costs for industry or confuse consumers by overly emphasising added sugars at the expense of other nutrients of concern.

Applying Option 6 to only sugary beverages / sugar-sweetened beverages warrants further consideration. As one of the justifications for applying Option 6 only to sugary beverages / sugar-sweetened beverages was the low coverage of the HSR star icon on beverages, it is recommended this option be considered further following the recommendations from the HSR five-year review and the Forum's response.

Implementation

This policy paper represents a preliminary analysis of potential options for labelling of sugars on packaged foods and drinks. Further consultation and analysis is required to consider the full costs and impacts of Option 4 and implementation details. FSANZ is best placed to undertake this work and it is recommended that the Forum request FSANZ to review nutrition labelling for added sugars in light of the analysis and conclusions in this report.

Under the legislated requirements in the *FSANZ Act 1991*, FSANZ is required to consider whether the costs to the community, government and/or industry outweigh the benefits; and that there are no other more cost-effective measures.

In reviewing nutrition labelling for added sugars it is recommended that FSANZ consider:

- consumer understanding of added sugars,
- NIP layout and formatting that could support consumer understanding and interpretation of added sugars information,
- implementation and technical issues such as which sugars are considered to be added sugars,
- ensuring that the sugars which are considered to be added sugars is unambiguous, comprehensive and based on evidence,
- methods for calculating and quantifying added sugars, and tools and support for industry and regulators to quantify added sugars in foods,
- potential changes to claims such as 'no added sugar' in the Code to ensure there are no inconsistencies in the Code or consumer confusion in relation to sugars labelling,
- the most appropriate regulatory approach (e.g. mandatory or voluntary labelling),
- potential impacts on trade, including whether a technical barriers to trade notification is required,
- relevant transition periods and alignment of transition periods for changes to other labelling standards (where relevant), and
- exemptions for particular product categories where, for example, declarations of added sugars may be inappropriate, confusing or misleading to consumers.

If Option 6 is to be considered further, key issues to consider are:

- outcomes of the HSR review in relation to beverages,
- which beverages are considered to be sugary beverages and sugar-sweetened beverages,
- whether the pictorial labels should be applied to sugary beverages / sugar-sweetened beverages, or the broader category of beverages (to enable comparison),
- whether the pictorial labels would present total or added sugars, and
- consumers' understanding of pictorial labels.

Introduction

Purpose of this paper

This Policy Paper has been prepared by the Food Regulation Standing Committee (FRSC) to provide advice to the Australia and New Zealand Ministerial Forum on Food Regulation (the Forum) on policy options for the labelling of sugars on packaged foods and drinks for sale in Australia and New Zealand.

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, the term 'added sugars' may include what are referred to as 'free sugars'⁸ 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 policy options. These are technical details which do not impact the policy options being proposed or the analysis of the proposed options.

⁸ 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))⁹ 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 website¹⁰.

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 documents¹¹ 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 involving developing and evaluating options for sugars labelling.

Also at the November 2017 meeting, the Forum noted the range of existing complementary initiatives such as the HSR system five-year review, 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.

Noting the Forum's advice, the FRSC developed six regulatory and non-regulatory policy options (in addition to the status quo) for the labelling of sugars that may provide consumers with adequate contextual information to enable them to make informed choices in support of dietary guidelines. In June 2018 the Forum gave approval for FRSC to undertake public consultation on these policy options

⁹ The Forum is made up of Ministers responsible for food regulation from the Australia Federal Government; New Zealand; and Australian states and territories.

¹⁰ Food Standards Australia New Zealand, 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).

¹¹ Food Regulation Secretariat, 2018. 'Sugar Labelling'. Available at: [Food Regulation website](#) (accessed 23 April 2018).

through a Consultation Regulation Impact Statement (CRIS). Consultation occurred from July to September 2018.

This paper draws upon research, feedback from the stakeholder consultation, a high-level preliminary qualitative impact assessment to make a recommendation to the Forum on a policy options for the labelling of sugars on packaged foods and drinks.

Statement of the problem

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

- *Australian Dietary Guidelines*¹² - Guideline 3: Limit intake of foods containing saturated fat, added salt (sodium), **added sugars** and alcohol
- *New Zealand Eating and Activity Guidelines*¹³ - 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 WHO recommended limit for consumption of 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 and/or unclear 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,
 - 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 the lack of information 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

¹² 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).

¹³ 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).

limit consumption of foods containing added sugars, the lack of information about foods' added sugars content 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.

More detail on each of the above points is provided in the sections below.

About sugars

Sugars are a type of carbohydrate. The energy (kilojoule) content of sugars is the same as other carbohydrates (16 kJ/ gram) and similar to the energy content of protein (17 kJ/gram). Fats provide around double the energy content (37 kJ/gram) compared to sugars.

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'¹⁴.

The addition of sugars to foods by the manufacturing industry is not limited to sweetening a product. Sugars can be added to foods for a number of functional reasons to contribute to the food's appearance, texture and shelf-life^{15,16}.

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.

Added and naturally occurring sugars provide the same energy content and are not chemically different. There are arguments this means added and naturally occurring sugars have the same physiological effect¹⁷. However, others argue because the food source of these sugars differs, the food matrix in which the sugars are found results in different physiological effects¹⁸. 'Discretionary' foods (foods high in energy and low in nutrients which should only be consumed sometimes and in small amounts), are more likely to contain added sugars. Foods recommended for daily consumption (referred to as 'core' foods or 'five food-group foods') such as whole fruit and plain milk and contain naturally occurring sugars. It has been estimated that 52% of core foods and 87% of discretionary foods in the Australian food supply contain added sugars¹⁹.

Health impacts of excessive added 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 foods²⁰. Foods and beverages high in added

¹⁴ 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.

¹⁵ 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).

¹⁶ Erickson, J. & Slavin, J., 2015. 'Are restrictive guidelines for added sugars science based?' *Nutrition Journal*, 14: p124.

¹⁷ 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).

¹⁸ Mela, D. J. and Woolner, E. M., 2018. 'Perspective: Total, Added, or Free? What Kind of Sugars Should We Be Talking About?'. *Advances in Nutrition*, 9(2): p63–69.

¹⁹ Peters S, et al. 2017. 'Incorporating Added Sugar Improves the Performance of the Health Star Rating Front-of-Pack Labelling System in Australia'. *Nutrients*, 9(7):p701.

²⁰ 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 at: [the National Academies Press](#) (accessed 17 June 2016).

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^{21,22,23,24,25} (however one recently published study suggests this may be more of a concern at very high intakes of added sugars)²⁶.

There is increasing concern that intake of added sugars, particularly from sugar-sweetened beverages^{27,28,29} increases overall energy intake and can lead weight gain, overweight and obesity³⁰. Obesity is a major risk factor for non-communicable diseases including diabetes, cardiovascular disease, some cancers and other conditions such as musculoskeletal conditions and kidney disease³¹. Added sugars are also associated with dental caries.

The association between consumption of added sugars and adverse health outcomes is through added sugar's contribution to excess energy intakes³². More evidence is needed to determine whether added sugars per se have a negative impact on health. A rapid 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 intake³³. It is important to note that most of this evidence is from observational studies.

However, a systematic literature review and meta-analysis of randomised controlled trials (the highest quality study design) on intakes of added sugars and blood cholesterol or blood pressure outcomes was published in 2014³⁴. This study reported that higher dietary intake of added sugars increased blood pressure and cholesterol levels (total cholesterol, triglycerides and low-density lipoproteins), independent of the effects of added sugars on body weight.

²¹ Louie, J.C. & Tapsell, L.C., 2015. 'Association between intake of total vs added sugar on diet quality: a systematic review'. *Nutrition Reviews*, 73(12): p837–857.

²² World Health Organization, 2015. 'Guideline: Sugars intake for adults and children'. Available at: [World Health Organization](#) (accessed 20 June 2016).

²³ 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 21 February 2019).

²⁴ Louie, J.C. & Tapsell, L.C., 2015. 'Intake of total and added sugars and nutrient dilution in Australian children and adolescents'. *British Journal of Nutrition*, 114(11): p1875-86.

²⁵ Kaartinen, N.E., et al, 2017. 'Naturally occurring and added sugar in relation to macronutrient intake and food consumption: results from a population-based study in adults'. *Journal of Nutrition Science*, 6: e7.

²⁶ Mok, A., Ahmad, R., Rangan, A. & Louie, J.C., 2018. 'Intake of free sugars and micronutrient dilution in Australian adults', *American Journal of Clinical Nutrition*, 107(1): p94-104.

²⁷ Luger, M., et al, 2017. 'Sugar-sweetened beverages and weight gain in children and adults: A systematic review from 2013-2015 and a comparison with previous studies'. *Obesity Facts*, 10: p674-693.

²⁸ Malik, V.S., et al., 2013. 'Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis'. *American Journal of Clinical Nutrition*, 98(4): p1084-1102.

²⁹ Te Morenga, L., Mallard, S. & Mann, J., 2013. 'Dietary sugars and body weight: a systematic review and meta-analysis of randomised controlled trials and cohort studies'. *BMJ*, 346: e7492.

³⁰ World Health Organization, 2015. 'Guideline: Sugars intake for adults and children'. Available at: [World Health Organization - Guideline: Sugars intake for adults and children](#) (accessed 20 June 2016).

³¹ Australian Institute of Health and Welfare, 2017. 'Impact of overweight and obesity as a risk factor for chronic conditions: Australian Burden of Disease Study'. Australian Burden of Disease Study series no.11, BOD 12. Canberra: AIHW. Available at: [AIHW website](#) (accessed 21 February 2019).

³² World Health Organization, 2015. 'Guideline: Sugars intake for adults and children'. Available at: [World Health Organization - Guideline: Sugars intake for adults and children](#) (accessed 20 June 2016).

³³ Boylan, S. & Mhrshahi, S., 2015. 'Sugar intake and health outcomes – A Rapid Evidence Review'. Available at [Physical Activity Nutrition Obesity Research Group](#) (accessed 22 August 2016).

³⁴ Te Morenga, L. A., et al, 2014. 'Dietary sugars and cardio metabolic risk: systematic review and meta-analysis of randomised controlled trials of the effects on blood pressure and lipids'. *American Journal of Clinical Nutrition*, 100: p65-79.

Recommendations about intake of sugars in Australia, New Zealand and internationally

Current dietary advice focusses on reducing intakes of added sugars, not naturally occurring intrinsic sugars.

The 2013 Australian Dietary Guidelines³⁵ and 2015 Eating and Activity Guidelines for New Zealand Adults³⁶ 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 2015 *Sugars Intake for Adults and Children*³⁷ guideline provides a ‘strong’ recommendation that added sugars³⁸ should account for less than 10 percent of total energy intake (approximately 50 grams/ 12 teaspoons³⁹) for the prevention of unhealthy weight gain and dental caries.

The WHO guideline makes an additional ‘conditional’ recommendation that intake of added sugars at less than 5 percent of total energy intake (approximately 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 intake⁴⁰.

The 2015-2020 *Dietary Guidelines for Americans*⁴¹ 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 limits⁴².

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 caries⁴³.

³⁵ 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).

³⁶ 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).

³⁷ 1 teaspoon refers to a level teaspoon of white sugar

³⁸ It is noted that the WHO guidance relates to ‘free sugars’ however, in this paper the term ‘added sugars’ may include what are referred to as ‘free sugars’.

³⁹ Based on a daily energy intake of 8,000kJ.

⁴⁰ Scientific Advisory Committee on Nutrition, 2015. ‘*Carbohydrates and Health*’. Available at: [Scientific Advisory Committee on Nutrition: Carbohydrates and Health](#) (accessed 21 July 2016).

⁴¹ 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).

⁴² 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.

⁴³ 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).

Intakes of added sugars in Australia and New Zealand and associated health outcomes

The latest data available indicates that on average, over half of Australians and New Zealanders exceeded the WHO's recommended limits in relation to the consumption of added sugars in 2011-12 and 2008-09 respectively^{44,45,46}. 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 recommended limits for consumption of added sugars. Sugar-sweetened beverages were the main contributor to added sugars intakes in the Australia population. No analysis of the main contributors of added sugars in the New Zealand population is available.

An analysis of changes in added sugars consumption in Australia between 1995 and 2011-12⁴⁷ 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 recommended limits 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 costs⁴⁸ and health impacts^{49, 50}.

The prevalence of overweight and obesity has increased in both New Zealand and Australia over the last ten to twenty years, 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^{51, 52}.

Years of healthy life lost due to death and disability associated with overweight and obesity has increased in both countries, and now represents the second leading risk factor for total disease burden in both Australia and New Zealand^{53, 54}.

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,

⁴⁴ Australian Bureau of Statistics, 2016. 'Australian Healthy Survey: Consumption of added sugars, 2011-12'. Available at: [Australian Bureau of Statistics](#) (accessed 23 April 2018).

⁴⁵ 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).

⁴⁶ Kibblewhite, R.L., 2016. 'Estimating free sugars intake in New Zealand' [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018).

⁴⁷ 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).

⁴⁸ PricewaterhouseCoopers, 2015. 'Weighing the cost of obesity: A case for action'. Available at: [PwC](#) (accessed 3 April 2018).

⁴⁹ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 28 February 2019).

⁵⁰ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

⁵¹ 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).

⁵² Australian Bureau of Statistics, 2018. 'National Health Survey: First Results, 2017-18'. Available at [Australian Bureau of Statistics](#) (accessed 9 January 2019).

⁵³ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 28 February 2019).

⁵⁴ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 28 February 2019).

pharmaceuticals) and \$4.8 billion AUD in indirect costs (absenteeism, presenteeism, forgone taxes)⁵⁵. 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).

In New Zealand, the cost of health care attributable to overweight and obesity in 2006 was estimated to be \$686 million NZD, equivalent to 4.5% of New Zealand's total health care expenditure in that year. Lost productivity associated with overweight and obesity was estimated to be between \$98 million NZD and \$225 million NZD depending on the methodology used⁵⁶.

According to the Australian Dental Association, consumption of sugars is the main contributor to dental caries⁵⁷. Dental decay is estimated to affect up to five million people in Australia each year⁵⁸. In 2015-16, an estimated \$9.9 billion (AUD) was spent on oral health⁵⁹ 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 of 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](#).

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 appraise 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.

Current labelling requirements in relation to sugars

Currently food labels do not provide adequate contextual information about sugars. No recent evidence-based expert advice has made recommendations about total sugars intake and reducing risk

⁵⁵ PricewaterhouseCoopers, 2015. 'Weighing the cost of obesity: A case for action'. Available at: [PwC](#) (accessed 3 April 2018).

⁵⁶ Lal, A., et al, 2012. 'Health care and lost productivity costs of overweight and obesity in New Zealand'. *Australian and New Zealand Journal of Public Health*, 36(6): p550-556.

⁵⁷ 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).

⁵⁸ 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).

⁵⁹ 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).

of chronic disease, however total sugars are widely communicated to consumers through food labelling⁶⁰.

Specific information about added sugars on food labels is limited or unclear, which limits consumers' ability to make informed choices in relation to the recommendations about added sugars in the dietary guidelines.

The section below details the information 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^{61,62}. 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 (some examples of these names include: malt, barley malt, blackstrap molasses, demerara, dextrose, fruit juice concentrate, muscovado, panela, palm sugar, rapadura, turbinado and treacle).

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 or biologically active substance about which a claim has been made.

A food's total sugars 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 total sugars in the NIP includes sugars naturally present, such as those found in fruit or milk, as well as added sugars. Added sugars are not required to be quantified separately in the NIP.

⁶⁰ Mela, D. J. and Woolner, E.M., 2018. 'Perspective: Total, Added, or Free? What Kind of Sugars Should We Be Talking About?'. *Advances in Nutrition*, 9(2): p63–69.

⁶¹ Dietitians Association of Australia, 2015. 'Understanding Food Labels'. Available at: [Australia's Healthy Weight Week](#) (accessed 20 June 2017).

⁶² 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 energy⁶³. 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 Guidelines⁶⁴: *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' claim⁶⁵, 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.

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

⁶³ Based on a reference value of 8,700kJ for daily energy.

⁶⁴ National Health and Medical Research Council, 2003. 'Dietary Guidelines for Australian Adults'. Available at: [National Health and Medical Research Council](#) (accessed 20 June 2017).

⁶⁵ The first definition of sugars in the Code is for NIP purposes.

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 HSR five-year review is being finalised and it is expected the review report will be provided to the Forum in mid-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 sugars content and other similar claims

Some manufacturers are choosing to voluntarily state the amount of added sugars in their products, or clarify the source of the sugar in the product, 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';
- *Kellogg Sultana Bran* uses a notation in the NIP to indicate what percent of total sugars in the product are derived from fruit;
- Iced Coffee brand *Minor Figures* uses a symbol next to total sugars in the NIP which links to a statement 'sugars found naturally in oats';
- *Kez's Kitchen Choc Mud Bars* include a note that the sugars listed in the NIP are comprised of 'only naturally occurring sugars'.
- Other manufacturers are using claims such as 'no refined sugar' even when the product contains coconut sugar which is a type of sugar is extracted from a coconut palm.

It is not known what proportion of manufacturers have adopted these practices across Australia and New Zealand. One recently published study examined use of these types of claims on non-alcoholic, non-milk beverages sampled across 17 supermarkets in Adelaide in 2016. The researchers reported that 7.9% of products were carrying a claim to indicate it was naturally sweetened or that the sugar was natural or from fruit⁶⁶.

The process for calculating and presenting a food's added sugars content is not specified in the Code and the Code does not define 'added sugars' or terms seen in the market such as 'naturally occurring sugars' or 'no refined sugar'. There is also no consistent industry standard as to how added sugars are calculated or represented on a food label. Manufacturers' estimates of a food's added sugars content can be highly variable due to different calculation methods and the type of sugars counted as 'added sugars', 'naturally occurring' or 'refined sugars'. This means consumers are unable to accurately compare products.

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 labelling⁶⁷.

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

⁶⁶ Brownbill, A. L., Miller, C. L. & Braunack-Mayer, A. J., 2018. 'Industry use of 'better-for-you' features on labels of sugar-containing beverages'. *Public Health Nutrition*, 21(18): p3335-43.

⁶⁷ 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).

that when examining a single product, consumers had difficulty in determining whether a single product was high or low in sugars.

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.

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

There is currently limited information available to consumers about which foods contain added sugars. The dietary guidelines consumer resources provide examples of some foods containing added sugars, however, this is small generic list (e.g. cakes, biscuits, sweetened soft drinks and cordials, honey, some sauces). Other health promotion websites and resources such as '*Rethink sugary drinks*' provide general information about drinks high in added sugars.

Another source of information on the added sugar content of foods in Australia 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 data⁶⁸ and this information is available free online⁶⁹. 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. In January 2019, FSANZ published more recent data on the added sugars content of foods as part of the *Australian Food Composition Database – Release 1*⁷⁰. While this resource provides more recent data, the values are still generic and generally do not capture variations between brands.

⁶⁸ Food Standards Australia New Zealand, 2018. '*AUSNUT 2011-13 food nutrient database*'. Available at: [AUSNUT database](#) (accessed 18 April 2018).

⁶⁹ 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](#).

⁷⁰ Food Standards Australia New Zealand, 2019. '*Australian Food Composition Database*'. Available at: [FSANZ website](#) (accessed 29 January 2019).

Similarly, researchers in New Zealand⁷¹ have calculated the added sugars content of foods in the New Zealand food composition database and from April 2019, added sugars information will be available in the New Zealand national food composition database. Like the Australian food composition database, this doesn't include all foods available in the New Zealand food supply, is not necessarily brand specific, is not designed for consumers and not regularly updated as new foods become available or product formulations change.

Another source of information about added sugars in foods is the George Institute (based in Australia) food composition database *FoodSwitch*. Added sugars information is available in this database for some foods where the manufacturer has listed the added sugars content of the product on the label. For food products where added sugars are not listed on the label, the George Institute has estimated the food's added sugars content using values derived from the FSANZ food composition database. The George Institute has noted that the added sugars data in the *FoodSwitch* database is primarily used for research purposes, as this data currently does not provide consumers with a consistent format of information on added sugars content at the point of purchase.

Some food manufacturers have calculated the added sugars content of some products as part of the HSR five-year review. Data on the amount of added sugars in 1,875 products from 33 companies were provided to the HSR Technical Advisory Group to model the impact of incorporating added sugars in the HSR algorithm. Almost all 42 food categories are represented. However, these added sugars data were provided by companies specifically for use in the HSR modelling and are not available to the public.

Current actions that are underway to support reducing intakes of sugars

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 behaviours⁷².

In recognition of this information, 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 manufacturers to communicate the results of their efforts in reducing added sugars content of their products.

⁷¹ Kibblewhite, R., et al, 2017. 'Estimating Free and Added Sugar Intakes in New Zealand'. *Nutrients*, 9(12): p1292.

⁷² 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).

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.

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;
- 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. The Dietary Guideline's recommended limiting consumption of added sugars for a healthy diet and the prevention of overweight and obesity and dental caries. Providing more contextual information about sugars, specifically added sugars on the label may assist consumers to identify foods which contain added sugars and therefore contribute to preventive health outcomes.

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, 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.

In this situation, 'contextual information' refers to information that can support consumers to use and interpret a food label.

It is recognised that a range of factors 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 change⁷³. 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.

⁷³ 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).

Statement of options

Six options (in addition to the status quo) were proposed and assessed to consider the extent to which they could achieve the desired outcome. These options are not necessarily mutually exclusive.

The status quo and each of the six proposed options are described below. Strengths and weaknesses are described in comparison to the status quo. Feedback from the stakeholder consultation has been incorporated into the description of the options and the strengths and weaknesses.

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, rather than 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 serving and per 100 g 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 using their discretion in the calculation method for quantifying a food's added sugars content.

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. Education may be tailored to ensure appropriate messaging for all community groups including appropriate content for differing cultural, language and low-literacy groups.

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 Guidelines⁷⁴. This website provides information on how to read food labels, including both mandatory and voluntary elements. In relation to the NIP, 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 the ingredients list, the NIP and health and nutrition content claims⁷⁵. 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 for⁷⁶, and the Good Habits for Life – Sugar Swap Challenge⁷⁷ 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 Australia⁷⁸ and the National Heart Foundation of Australia⁷⁹. In New Zealand, consumer information that provides specific advice regarding sugars on labels is available through the Health Navigator website⁸⁰ the Ministry of Health's Healthy Eating, Active Living resource⁸¹, and the Health Promotion Agency's resources entitled '*How much sugar do you drink?*' and '*What to look for on a food label*'⁸².

Some food manufacturers and retail businesses regularly run consumer education campaigns to support labelling initiatives. A current example of this is related to the HSR system. Major retailers such as Woolworths and Coles provide in store activities, store magazines and online content⁸³ to assist customers in applying the HSR and making healthier choices. Woolworths run further campaigns

⁷⁴ 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).

⁷⁵ Food Standards Australia New Zealand, 2015. '*Labelling*'. Available at: [FSANZ website](#) (accessed 24 April 2018).

⁷⁶ Victorian State Government Better Health Channel, 2013. '*Food labels*'. Available at: [Better Health Channel](#) (accessed 24 April 2018).

⁷⁷ ACT Government, n.d. '*Good Habits for Life: Sugar Swap Challenge Brochure*'. Available at: [Good Habits for Life website](#) (accessed 24 April 2018).

⁷⁸ Dietitian's Association of Australia, 2018. '*Food Labels*'. Available at: [DAA website](#) (accessed 24 April 2018).

⁷⁹ National Heart Foundation of Australia, n.d. '*Food Labels*'. Available at: Heart Foundation website (accessed 24 April 2018).

⁸⁰ Health Navigator New Zealand, 2018. '*Using Food Labels*'. Available at: [Health Navigator website](#) (accessed 24 April 2018).

⁸¹ New Zealand Ministry of Health and Health Promotion Agency, 2015. '*Healthy eating, active living*'. Available at: [HealthEd website](#) (accessed 26 April 2018).

⁸² New Zealand Health Promotion Agency, n.d. '*Nutrition and Activity*'. Available at: [New Zealand Health Promotion Agency website](#) (accessed 20 November 2018).

⁸³ Coles, 2018. '*Magazine*'. Available at: [Coles website](#) (accessed 12 December 2018).

that provide tips and swaps to assist consumers to compare foods and make healthier choices and booklets for parents to assist in choosing lunch items for children⁸⁴.

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 broader nutritional information resulting in improved consumer motivation and understanding of food labelling.
- Education may be tailored to different consumer groups, such as non-English speaking people, health professionals etc.

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 the 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 largely by Government.

Option 3: Change to statement of ingredients

Description

This option proposes to change the statement of ingredients only 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 descending 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

⁸⁴ Woolworths, 2018. 'Making healthier choices easier: The Health Star Rating System'. Available at: [Woolworths website](#) (accessed 12 December 2018).

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 is now required in Canada with a five year transition period ending in 2021 (and therefore has not yet been fully implemented)⁸⁵.

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 because it may move added sugars up the statement of ingredients (if the bracketed list approach is taken).
- Has the capacity to reduce confusion that consumers may have about various names used for sugars-based ingredients.
- Provides transparency with regard to added sugars in a food.
- Consumers report having an interest in sugars and may be receptive to additional labelling⁸⁶.
- Information is available to consumers at point-of-purchase.

Weaknesses

- Impact on industry, including cost associated with label changes.
- There may be technical issues of defining sugars-based ingredients/added sugars, however, international examples can provide guidance⁸⁷.
- 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 and for compound ingredients that contain added sugars.
- 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, however education would help to mitigate confusion.
- 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.
- Focusing on added sugars alone as a negative nutrient (without including other negative nutrients – saturated fat and sodium) may imply added sugars are a more concerning nutrient which is inconsistent with the dietary guidelines.

⁸⁵ Government of Canada, 2017. ‘Food labelling changes’. Available at: [Government of Canada website](#) (accessed 2 January 2019).

⁸⁶ 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).

⁸⁷ Government of Canada, 2017. ‘Food labelling changes’. Available at: [Government of Canada website](#) (accessed 2 January 2019).

- 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.

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 product's 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 different types of 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

Some companies in Australia and New Zealand are voluntarily including 'added sugars' in the NIP.

The United States will implement a version of this option (see example below). The amount of 'added sugars', together with the % DV (daily value), per serving is to be included in the United States NIP equivalent. 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.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Canada will implement 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

- Quantifies a food’s added sugars content and 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 low⁸⁸.
- 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 labelling⁸⁹.

⁸⁸ 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).

⁸⁹ 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).

- Added sugars information is highly valued by consumers⁹⁰.
- Information is available to consumers at point-of-purchase.

Weaknesses

- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.
- There may be technical issues of defining sugars-based ingredients and quantifying added sugars, however, international examples can provide guidance⁹¹.
- May present challenges for monitoring, enforcement and compliance due to lack of analytical methods to quantify a foods' added sugars content, and difficulties associated with a supply-chain or recipe-based approach. However, international examples can provide guidance.
- Separating total and added sugars on a food label was considered and not recommended by a joint FAO/WHO Update on Carbohydrates⁹².
- HIGH/MEDIUM/LOW-type advice adds complexity given the HSR system is the overall Australian and New Zealand front-of-pack qualitative advice system.
- Contextual advice on only one nutrient in the NIP (for example HIGH/MEDIUM/LOW for added sugars without including other negative nutrients – saturated fat and sodium) could imply added sugars area 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 reformulation⁹³.
- May cause confusion with some consumers as there is evidence that an additional line in the NIP with added sugar content may cause consumers to over-estimate the total sugars in the product⁹⁴, however, this potential can be reduced through label design⁹⁵.

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 could also 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.

⁹⁰ CHOICE Australia, 2018. *People's choice on sugar labelling*. Available at: [CHOICE website](#) (accessed 13 November 2018).

⁹¹ United States Food and Drug Administration, 2018. *Changes to the Nutrition Facts Label*. Available at: [United States Food and Drug Administration website](#) (accessed 19 November 2018).

⁹² Englyst, K. N., Liu, S. & Englyst, H. N., 2007. 'Nutritional characterization and measurement of dietary carbohydrates'. *European Journal of Clinical Nutrition*, 61: p.S19-S39.

⁹³ 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).

⁹⁴ Laquatra, I., et al, 2015. 'Including "added sugars" on the Nutrition Facts panel: how consumers perceive the proposed change'. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

⁹⁵ Laquatra, I., et al, 2015. 'Including "added sugars" on the Nutrition Facts panel: how consumers perceive the proposed change'. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

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 an added sugars 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) and the specific language to be used would be addressed as part of implementation considerations.

Rationale

International consumer research⁹⁶ 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 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 may have a 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

- Overcomes the problem that consumers are generally unable 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. Provides recognisable guidance at the potential point of purchase or consumption to support informed choices.
- Specific shapes and symbols (such as a stop sign) are already meaningful to consumers and do not require an explanation for consumers to understand^{97,98}.
- The simplified information is likely to be understood by individuals with poor literacy or numeracy, including children.

⁹⁶ 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).

⁹⁷ Health Canada, 2016. ‘Toward Front-of-Package Nutrition Labels for Canadians-Consultation Document’. Available at: [Health Canada](#) (accessed 4 April 2018).

⁹⁸ Lumen Learning, n.d. ‘Reading: Symbols and Language’. Available at: [Lumen website](#) (accessed 4 April 2018).

- If the advisory label is on the front-of-pack, front-of-pack nutrition labelling systems that are simple, consistent, coloured and do not require mathematical skills or take little time to interpret can assist to improve consumers' food choices⁹⁹.
- May reduce consumer confusion between added and total sugars, where consumer understanding is low¹⁰⁰. May also provide advice about the health consequences of consuming too much sugar.
- Consumers report having an interest in sugars and may be receptive to additional labelling¹⁰¹.
- Information is available to consumers at point-of-purchase.

Weaknesses

- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.
- There may be technical issues of defining sugars-based ingredients/ and quantifying added sugars, however, international examples can provide guidance¹⁰².
- May presents challenges for monitoring, enforcement and compliance due to lack of analytical methods to quantify a foods' added sugars content, and difficulties associated with a supply-chain or recipe-based approach.
- Consumers may give less attention to, or place less importance on, existing advisory labels for foods or ingredients which may cause a health risk to certain consumers.
- May compete with the non-mandatory food labelling elements.
- May compete with the HSR for space on the label. HSR takes into account more than sugars (energy, saturated fat, protein, sodium and fruit, vegetable, nut and legume content) so if the HSR was pushed-off the label by sugar advisory labels, the food label would 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 sugars or added sugars alone as a negative nutrient (without including other negative nutrients – saturated fat and sodium) may 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.

⁹⁹ 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).

¹⁰⁰ 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).

¹⁰¹ 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).

¹⁰² United States Food and Drug Administration, 2018. 'Changes to the Nutrition Facts Label'. Available at: [United States Food and Drug Administration website](#) (accessed 19 November 2018).

Option 6: Pictorial approaches to convey the amount 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 include 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), 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, 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 consumers' 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.

In New Zealand, there is a proposed member's Bill, 'Labelling of Sugary Beverages (Displaying Teaspoons of Sugar) Bill'. This Bill would require manufacturers of sugary beverages to display the total number of teaspoons of sugars within the beverage in a prominent position on the front of the package. As at March 2019 this Bill has not been drawn from the ballot for consideration by Parliament.

Strengths

- Pictorial approaches that visually present the amount and/or proportion of sugars/added sugars in food do not require consumers to understand and interpret the NIP. It therefore provides recognisable guidance at the potential point of purchase or consumption to support informed choices.

- 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 image can be on the front-of-pack, evidence suggests nutrient specific front-of-pack labelling can assist consumers identify healthier food options¹⁰³.
- The simplified information is likely to be understood by individuals with poor literacy or numeracy, including children.
- Consumers report having an interest in sugars and may be receptive to additional labelling¹⁰⁴.
- Added sugars information is highly valued by consumers¹⁰⁵ (if pictorial approach includes added sugars).
- Information is available to consumers at point-of-purchase.

Weaknesses

- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.
- There may be technical issues of defining sugars-based ingredients/ and quantifying added sugars, however, international examples can provide guidance¹⁰⁶.
- If pictorial approach includes added sugars, may presents challenges for monitoring, enforcement and compliance due to lack of analytical methods to quantify a foods' added sugars content, and difficulties associated with a supply-chain or recipe-based approach, however, international examples can provide guidance.
- Separating total and added sugars on a food label was considered and not recommended by a joint FAO/WHO Update on Carbohydrates¹⁰⁷.
- May require 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).
- If the pictorial image used is a teaspoon, it is a less precise measurement than grams, and there may be differing preconceptions of what a teaspoon is (heaped vs level).
- Focusing on sugars or added sugars alone as a negative nutrient (without including other negative nutrients – saturated fat and sodium) may 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.
- May compete with the non-mandatory food labelling elements.
- May compete with the HSR for space on the label. HSR takes into account more than sugars (energy, saturated fat, protein, sodium and fruit, vegetable, nut and legume content) so if the

¹⁰³ Health Canada, 2016. 'Toward Front-of-Package Nutrition Labels for Canadians-Consultation Document'. Available at: [Health Canada](#) (accessed 4 April 2018).

¹⁰⁴ 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).

¹⁰⁵ CHOICE Australia, 2018. 'People's choice on sugar labelling'. Available at: [CHOICE website](#) (accessed 13 November 2018).

¹⁰⁶ United States Food and Drug Administration, 2018. 'Changes to the Nutrition Facts Label'. Available at: [United States Food and Drug Administration website](#) (accessed 19 November 2018).

¹⁰⁷ Englyst, K. N., Liu, S. & Englyst, H. N., 2007. 'Nutritional characterization and measurement of dietary carbohydrates'. *European Journal of Clinical Nutrition*, 61: S19-S39.

HSR was pushed-off the label by pictorial labels, the food label would provide less information to support consumers to take a whole-of-diet approach to food choices.

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 there could be a website address 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. All of the above proposed additional information on the label could be provided through off-label web-based information.

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 there would be requirements for how to quantify added sugars in the web-based information.

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 access this information through smart phones and websites.

Current example

Although not relevant to sugar, the United States Department of Agriculture is currently drafting a proposed rule¹⁰⁸ 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 study¹⁰⁹ has been completed to identify potential technological challenges that may impact whether consumers would have access to the bioengineering disclosure through electronic or digital disclosure methods.

¹⁰⁸ United States Department of Agriculture, n.d. ‘GMO Disclosure & Labeling’. Available at: [USDA website](#) (accessed 24 April 2018).

¹⁰⁹ United States Department of Agriculture, 2017. ‘Study of Electronic or Digital Disclosure’. Available at: [USDA website](#) (accessed 24 April 2018).

Again not specific to sugars, private industry-backed organisations in the United States 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 Label¹¹⁰ or use of company apps^{111,112}.

The George Institute in Australia has developed the *Food Switch* app¹¹³ for smart phones where consumers can scan barcodes of packaged foods to receive information on the composition of the food (e.g fat, sodium and total sugars) and see information on similar foods that have a healthier nutrition profile. Users can select different filters when using the app to focus on a particular nutrient of concern such as sodium, saturated fat, sugar or kilojoules. However, the George Institute has advised that despite a high number of downloads for this app (600,000 in Australia), the majority of people who have the app don't use it regularly with 1,000 daily active users (0.16% of those who have downloaded the app) and monthly active users between 15,000 and 20,000 (3% of those who have downloaded the app).

Strengths

- Could provide additional information for consumers (with access to a smart phone) in their decision making at point of purchase.
- Could provide further information about sugars in food in small packages that do not have NIPs. However, depending on the final format of digital linking, there may be no space for digital link (e.g. website or QR Code) on a small package either.
- Allows for easier modification for any future changes in food composition, regulatory requirements, guidelines, research and evidence.
- May establish digital linking infrastructure for future nutrients/ingredients/issues of consumer interest.
- Consumers report having an interest in sugars and may be receptive to additional information¹¹⁴.

Weaknesses

- Impact on industry to implement additional labelling, including cost associated with label changes and use of additional space on package.
- There may be technical issues of defining sugars-based ingredients and quantifying added sugars, however, international examples can provide guidance¹¹⁵.
- May present challenges for monitoring, enforcement and compliance due to regulating information that is not on a label, lack of analytical methods to quantify a food's added sugars content, and difficulties associated with a supply-chain or recipe-based approach, however, international examples can provide guidance.
- Requires food companies to have or establish a website and/or to develop apps (or other tools) to enable consumer access to information.
- If websites are maintained by individual companies, it may be difficult for consumers to easily compare products by different manufacturers on a consistent basis and in a timely fashion.

¹¹⁰ Smart Label. 'Smart Label for Consumers!'. Available at: [Smart Label website](#) (accessed 24 April 2018).

¹¹¹ Packing Strategies, 2017. 'Mondelez International launches Smart Label apps'. Available at: [Packing Strategies website](#) (accessed 24 April 2018).

¹¹² Unilever, 2018. 'Smart Label: What is a Smart Label?'. Available at: [Unilever website](#) (accessed 24 April 2018).

¹¹³ The George Institute for Global Health, 2018. Food Switch. Available at: [App Store website](#) (accessed 17 December 2018).

¹¹⁴ 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).

¹¹⁵ United States Food and Drug Administration, 2018. *Changes to the Nutrition Facts Label*. Available at: [United States Food and Drug Administration website](#) (accessed 19 November 2018).

- Requires consumers to have internet access and a compatible smart phone or other access to website information and to be technologically literate. This introduces inequalities in access to information.
- Is reliant upon consumers to be motivated to use such labelling to be effective. Many submissions from consumers indicated that they would not use this type of technology.
- May not support consumer understanding if consumers are confused or overwhelmed by the additional information that could potentially be provided via the digital linking.

Consultation on the proposed options

Consultation process

Public consultation was undertaken from 19 July to 21 September 2018. The consultation involved inviting submissions from stakeholders to a series of 36 questions in a Consultation Regulation Impact Statement (CRIS) on labelling of sugars on packaged foods and drinks.

The CRIS was made available on the Food Regulation website and stakeholders were invited to provide their response to the questions in the CRIS through *Citizen Space*- an online consultation platform.

To ensure relevant stakeholders were aware of the public consultation, the Food Regulation Secretariat sent an email to all contacts in its distribution list and invited them to make a submission. The email asked that stakeholders forward the invitation to any other relevant parties. The email also advised that submissions should be supported by evidence and that peak organisations were expected to consult their members on the questions in the CRIS and provide a single response on behalf of their members.

The consultation generated a reasonable level of media coverage which further raised awareness of the consultation and attracted interest from stakeholders.

A total of 166 submissions were received. The majority (145) of submissions were made via the *Citizen Space* platform, and 21 submissions provided by email were also accepted. Some stakeholders made a submission through *Citizen Space* and also emailed additional supporting material which was accepted and considered when reviewing the submissions. Table 4.1.1 provides an overview of submissions received.

Table 4.1.1 - Submissions to the stakeholder consultation

	Australia	New Zealand	Bi-National	Not specified	Total
Individuals	23	43	0	8	74
Food industry	14	8	9	0	31
Public Health	22	27	1	0	50
Governments	5	2	0	0	7
Others	2	2	0	0	4
Total	68	82	8	8	166

Submissions were analysed by a team of policy officers from various FRSC jurisdictions who were part of a FRSC reference group for this project. Each team member reviewed all submissions and information provided in relation to one of the options for labelling of sugars proposed in the CRIS. Team members then individually prepared an analysis of the submissions and evidence provided in relation to that option. This analysis was incorporated into this document by the Australian Government Department of Health.

Stakeholder responses to other questions in the CRIS (not related to the proposed options) were analysed by the Australian Government Department of Health. Information and evidence provided in the submissions has been incorporated into the relevant parts of this document.

Overall consultation themes

Feedback from the stakeholder submissions has been incorporated throughout this document and more detail on stakeholder feedback received is provided at [Attachment C](#). A summary of stakeholder feedback is presented below.

Stakeholder views in relation to the statement of the problem

The majority of submissions to the public consultation on sugars labelling supported the statement of the problem. Those who did not support the statement of the problem considered the focus too narrow and thought the statement of the problem should be broadened to consider more whole-of-diet issues, however, some submissions from the food industry, and one public health academic, considered that there was no problem with the current information about sugars on food labels and insufficient evidence to justify further action in this area.

Stakeholder views in relation to the desired outcome

The majority of submissions to the stakeholder consultation on sugars labelling were supportive of the desired outcome of this work. However, sixteen public health submitters did not support the desired outcome as they considered it be too narrow and thought the scope should be expanded to include incentivising product reformulation, support monitoring of the food supply, addressing inequalities or promoting behaviour change. Another seven submissions from industry and some public health professionals considered that the scope of the desired outcome be broadened beyond sugars to include a whole-of-diet approach.

These comments are acknowledged and other work is underway in areas such as promoting healthy eating, incentivising food reformulation and improving provision of healthy food in key settings. This work is described at [Attachment B](#).

Stakeholder views in relation to Option 2

Overall, the food industry was the only stakeholder group to support this option. All other stakeholder groups felt that without label changes, this option would not meet the desired outcome. Many stakeholders did not realise that all other proposed options have consumer education built into their implementation and often supported consumer education being implemented in combination with food label changes.

Stakeholder views in relation to Option 3

The majority of food industry submitters did not support this option.

The majority of other submitters considered this option would be either partially effective in addressing the policy issue and achieving the desired outcome or that it would be effective in combination with another option (mostly with additional labelling and some submitters also supported it in combination with education). Support for this option was on the basis that it would allow identification of added sugars and the relative contribution of added sugars to a food.

Members of the public offered mixed support for this option with some noting that consumers do not have the motivation or skills to read and interpret a statement of ingredients and wanted labelling that was simpler and quicker to understand.

Stakeholder views in relation to Option 4

Most food industry submissions offered support for this option (particularly if it could be implemented on a voluntary basis). Some food industry submitters commented they were already providing added sugars information in the NIP. Reasons for industry support for this option were that it could enable industry transparency with consumers, not over-emphasise added sugars on the food label, and would not involve a significant change to a food label.

Food industry submissions that did not support this option raised concerns over complexities and the technical challenges associated with measuring a food's added sugars content (these concerns are relevant to all options involving quantification of a food's added sugars content) and commented that added sugars are not different to other sugars on a chemical and therefore physiological basis.

The strong majority of public health sector, Governments, consumers and others (e.g. consumer advocates) supported this option because it provided context to the total sugars information in the NIP by clearly quantifying the amount of added sugars in a food product. Separating added and total sugars in the NIP was seen to be very important because added sugars specifically should be limited in the diet (rather than all sugars)¹¹⁶. These submissions noted that the NIP is most commonly used by consumers¹¹⁷ and includes other key nutrients such as sodium and saturated fat which the dietary guidelines recommend should be limited. Some submissions cited the CHOICE survey which reported 80% of respondents supported including added sugars in the NIP.

Some non-industry submitters noted that not all consumers have the motivation or numeracy skills to read and interpret a NIP and wanted labelling that was simpler and quicker to understand.

There was mixed support for including additional contextual information such as HIGH/MEDIUM/LOW or %DI labelling with this option with some submissions (particularly from the food industry) considering that this focuses on sugars above other nutrients and conflicts with the HSR. Others considered this may further support consumers to understand food labels and could be applied to other nutrients of concern. Some submissions suggested this could be considered after added sugars were quantified in the NIP so as to not delay the process.

Non-industry sectors supported Option 4 being implemented on a mandatory basis to enable consistency in labelling, coverage across all products and product comparison.

Stakeholder views in relation to Option 5

Food industry overwhelmingly did not support this option. The main concerns raised by industry was the disproportionate focus of this option on added sugars relative to the available evidence, the impact on trade, and concerns that this option may replace the HSR, resulting in less consumer information.

Public health submitters had mixed views on the merit of this option. While most submissions acknowledged that this option would be partially effective or effective in combination with other options, some submitters were concerned that this option focused too heavily on added sugars, which may result in consumption behaviours not aligned with the wider dietary guidelines. Although, some submissions noted that this option could be expanded to include saturated fat and sodium to reduce emphasis on added sugars and provide a whole-of-diet approach.

Government submitters held some concerns regarding this option. The key concern was the potential for this option to undermine or compete with the HSR, in which governments have invested significant time and financial resources. There were also some concerns about the overemphasis on added sugars relative to other risk nutrients, the growing competition for label space due to regulatory and quasi-regulatory labelling initiatives and the quality of evidence to support this option.

Members of the public also held mixed views of this option. Some supported this option, as it would be simple and easy to understand. While others were concerned that this option did not provide sufficient information and did not help to identify foods that are high in other risk nutrients.

Stakeholder views in relation to Option 6

Support for this option was highest among consumers, who felt that pictorial displays are simple and easy to understand. Many public health and researcher/academic submissions cited the CHOICE

¹¹⁶ Mela, D. J. & Woolner, E. M., 2018. 'Perspective: Total, Added, or Free? What Kind of Sugars Should We Be Talking About?'. *Advances in Nutrition*, 9(2): p63–69.

¹¹⁷ Food Standards Australia New Zealand, 2015. 'Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand'. Available at: [FSANZ website](https://www.foodstandards.gov.au/foodlabelling/choice) (accessed 13 November 2018).

survey, which showed 75% of surveyed consumers supported providing images of teaspoons of sugar reflecting amount of added sugar within products¹¹⁸.

The public health sector was appreciative of the benefits of this option for those with lower literacy, however had concerns around disregarding other negative nutrients and conflict with the HSR. Government had very little support for this option, with the main concern being the existing investment in the HSR, and the potential for this option to create a conflict with this. Industry was generally not supportive of this option, due to concerns over the cost, the lack of labelling space, and that they did not believe it would be effective.

The majority of submitters focussed on this option being for depicting added sugars, while some specifically preferred this option to depict total sugars instead. The majority of submitters focused on teaspoon labelling, and did not discuss the other potential forms a pictorial label could take. A few submitters did specifically express a clear preference for teaspoon labelling, due to being easier to understand and easier for those with literacy and numeracy issues.

Stakeholder views in relation to Option 7

Submissions made a range of interpretations about what implementation of this option would involve, which impacted on the consistency of responses. The food industry had the most support for this option and considered it would be effective or partially effective in achieving the desired outcome. Industry emphasised this option could provide consumers with a variety of contextual information about food products and that this was a positive development.

All other sectors generally did not support this option and did not consider it would achieve the desired outcome as it did not provide consumer information at the point-of-sale and may not be accessible to all consumers and therefore contribute to health and information inequalities.

Most members of the public did not support this option as it was seen to be time consuming, required motivation to use and was not accessible to all consumers. Members of the public overwhelmingly indicated they were unlikely to use this option.

One relevant point made in a number of submissions came from the country of origin labelling work where digital based solutions were considered for Country of Origin Label reform in Australia in 2016¹¹⁹. This work acknowledged that neither industry nor consumers are ready for a solution that relied solely on digital information. Consumer research referred to showed that most consumers did not want to use digital solutions when shopping, and businesses also felt their IT systems were not equipped to disseminate this level of information and would require significant investment to do so.

Other options

The consultation process sought feedback from stakeholders about whether there were any other options that may achieve the desired outcome in relation to sugars labelling. Some submissions proposed a combination of options already under consideration and some proposed amendments to the HSR System. As the HSR system is being reviewed under a separate process, this feedback was provided to the relevant consultant.

Few other submissions proposed alternate options to achieve the desired outcome; two submissions proposed supermarket displays for added sugars education and three proposed changes to claim conditions in relation to sugars in the Code. These options were considered but were not seen to sufficiently address the policy issue and achieve the desired outcome and were not pursued further.

¹¹⁸ CHOICE, 2017. 'End the sugar-coating: A CHOICE report into added sugar labelling in Australia'. Available at [CHOICE](#) (accessed 28 February 2019)

¹¹⁹ Australian Government, 2016. 'Federal Register of Legislation: Competition and Consumer Amendment (Country of Origin) Bill 2016'. Available at [Australian Government website](#) (accessed 14 December 2018).

Assessment of the options

Assessment of the options against the desired outcome

Each of the proposed options was assessed to consider the extent to which it could achieve the desired outcome: *Food labels provide adequate contextual information about sugars to enable consumers to make informed choices in support of the dietary guidelines.*

To assist in this assessment, criteria were developed to compare and rank the options. These criteria are detailed in Table 5.1.1.

5.1.1- Criteria to assess the proposed options

Criteria	Description
Dietary guidelines	<p>Considers how well the option supports the dietary guidelines.</p> <ul style="list-style-type: none"> • Australian Dietary Guidelines – Limit intake of foods containing saturated fat, added salt, added sugars and alcohol. • New Zealand Eating and Activity Guidelines – Choose and/or prepare foods and drinks with little or no added sugars.
	Considers how well the option supports a whole-of-diet approach as opposed to over-emphasising a single nutrient. This includes whether the labelling option would ‘push off’ more whole-of-diet type information from the food label.
Contextual information	Considers whether the option provides information that can support consumers to use and interpret sugars information on the food label. This includes the ability to compare foods.
Consumer understanding	Considers how well the option is understood by consumers (including those with low literacy or numeracy or technological literacy). Considers simplicity of message and ease of access to information on the label at point-of-sale.
New information	Considers whether the option delivers sugars information that is not currently available to the consumer.

The assessment of the options took into account information provided through stakeholder consultation as well as additional research and critical analysis.

Table 5.1.2 presents an analysis of each of the proposed options against the assessment criteria. The criteria were rated according to green, amber or red to reflect the extent to which each option achieved these criteria (with green indicating that the criteria was well met, amber indicating the criteria was somewhat met and red indicating the criteria was poorly met).

This analysis shows that Option 4 (added sugars quantified in the NIP) could best achieve the desired outcome. The options least likely to achieve the desired outcome are Option 1 (status quo), Option 2 (education) and Option 7 (digital linking to off label web-based information). Options that were rated red in at least one criterion were not considered feasible options and not considered further.

5.1.2- Extent to which each option can achieve the desired outcome

	Dietary Guidelines	Contextual information	Consumer understanding	New information
Option 1 – Status quo	Some food manufacturers are choosing to voluntarily declare the added sugars content of their food products. However, most food labels do not support consumers to easily identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines). This limits consumers’ ability to consider all negative nutrients the dietary guidelines recommend should be limited.	Some labelling elements such as HSR and %DI may support consumers to use and interpret sugars information on the food label. However, this contextual information is focused on total sugars. Consumers can compare products using total sugars information in the NIP, but cannot compare added sugars content of foods using the NIP or any other element of a food label.	There is some evidence of consumer confusion when interpreting food labels in relation to sugars under status quo ¹²⁰ .	The status quo is focussed on existing information.
Option 2 – Education on how to read and interpret labelling information about sugars	Option 2 supports consumers to make food choices consistent with the dietary guidelines. An education campaign could assist to educate consumers on how to identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines). However, without information on added sugars being provided on food labels, the potential for this education campaign may be limited. An education campaign strategy could encourage consumers to take a whole-of-diet approach when evaluating a food product, which would not over-emphasise added sugars above other risk nutrients.	Information that can support consumers to use and interpret a food label may be provided through an education campaign. However, Option 2 will make no change to the current food label and would only be able to give general advice. Therefore this option does not allow comparison between products.	There is some evidence of consumer confusion when interpreting food labels under status quo ¹²¹ . Education may have some impact on consumer understanding of food labels in relation to added sugars ¹²² , but the potential of this option is limited as it can only provide general advice and is time limited. Furthermore, this information will not be available at the point of sale. Consumer recall of the campaign message will be required to assist in purchasing decisions. If the education campaign is delivered online, the education campaign may not reach members of the community with limited access or literacy to technologies ¹²³ . Education may not be sufficiently understood by all community groups ^{124, 125} . However, there is capacity to tailor an education campaign to reach specific population groups and simplify information for groups with lower literacy skills.	Option 2 will not be providing new information. Rather it proposes to draw on existing information to increase consumers’ understanding of how to use and interpret food labels.
Option 3 – Change to statement of ingredients to overtly identify sugars-based ingredients	Option 3 supports consumers to make food choices consistent with the dietary guidelines because it provides information about the presence of added sugars in a food. Overtly identifying added sugars in the statement of ingredients allows consumers to identify products containing added sugars (Australian dietary guidelines). In respect to the New Zealand dietary guidelines, it will allow for identifying foods with no added sugars however is unlikely to assist with identifying foods with little added sugars. Option 3 may emphasise added sugars over other negative nutrients identified in dietary guidelines.	If added sugars were grouped in the statement of ingredients, Option 3 would provide information about the relative contribution of added sugars in the context of other ingredients. It would allow consumers to compare the relative amounts of added sugars to other ingredients within a food; however it would not allow consumers to identify whether a food has a high, medium or low added sugars content. Option 3 would not allow for comparisons of added sugars content between foods.	Option 3 should make identification of added sugars in a food easier at the point of sale, noting that under the status quo names other than ‘sugar’ can be used to describe sugars-based ingredients in the statement of ingredients. Option 3 would require a degree of literacy and time on behalf of the consumer to study the statement of ingredients to identify the presence of added sugars amongst other ingredients declared. Around half of Australian consumers and less than half of New Zealand consumers are aware that the	As noted, Option 3 would provide some additional information to make identifying added sugars easier.

¹²⁰ Food Standards Australia New Zealand, 2017. ‘Consumer Label Survey 2015 – Food labelling Use and Understanding in Australia and New Zealand, Food Standards Australia New Zealand’. Available at: [FSANZ website](#) (accessed 17 December 2018).

¹²¹ Food Standards Australia New Zealand, 2017. ‘Consumer Label Survey 2015 – Food labelling Use and Understanding in Australia and New Zealand, Food Standards Australia New Zealand’. Available at: [FSANZ website](#) (accessed 17 December 2018).

¹²² Miller, L., & Cassidy, D., 2015. ‘The effects of nutrition knowledge on food label use. A review of literature’. *Appetite*, 92: p207-216.

¹²³ Robson, B., et al, 2016. ‘Tiro Whanui: Bay of Plenty District Health Board Maori Health Profile 2015 at a Glance’. Wellington: Te Ropu Rangahau Hauora a Eru Pomare, University of Otago. Available at: [Bay of Plenty District Health Board](#).

¹²⁴ Satherley, P., Laws, E., & Sok, S., 2008. ‘The adult literacy and life skills (ALL) survey: Overview and international comparisons’. Wellington, New Zealand: Ministry of Education. Available at: [Ministry of Education website](#) (accessed 14 November 2018).

¹²⁵ OECD, 2017. ‘Building Skills for All in Australia: Policy Insights from the Survey of Adult Skills’. OECD Skills Studies. Available [online](#) (accessed 14 November 2018).

	Dietary Guidelines	Contextual information	Consumer understanding	New information
	<p>There is no requirement to refer to negative nutrients/ingredients identified in dietary guidelines directly in the statement of ingredients nor to group them. This means they are not necessarily highlighted/emphasised or shifted upwards in the statement of ingredients due to grouping. Hence grouping added sugars may bring attention to sugars-based ingredients over other ingredients such as salt or ingredients containing saturated fat. This may imply added sugars are a more concerning nutrient which is inconsistent with the dietary guidelines.</p> <p>Assuming all added sugars are currently declared in the statement of ingredients, a requirement to overtly identify added sugars should not result in significant additional labelling information (i.e. more words) and therefore should not necessitate the removal of other more holistic information such as the HSR.</p>		statement of ingredients requires ingredients to be listed in a specific order ¹²⁶ .	
Option 4 – added sugars quantified in NIP	<p>Option 4 supports consumers to make food choices consistent with the dietary guidelines because it provides quantified information about the added sugars content of the food product. This would allow consumers to identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines).</p> <p>The NIP currently includes saturated fat and sodium which the dietary guidelines recommended should be limited (in addition to added sugars). The NIP also includes positive nutrients such as fibre which are recommended to be consumed.</p> <p>Placing added sugars in the NIP alongside other nutrients identified in the dietary guidelines and in a consistent format supports consumers to take a whole-of-diet approach when evaluating a food product, and does not over-emphasise added sugars above other risk nutrients.</p> <p>Including added sugars in the NIP is a minimal change to a food label and is unlikely to necessitate removal of other more holistic information from the food label such as the HSR.</p>	<p>Option 4 provides contextual information as it allows consumers to understand how much of a product’s total sugars content is derived from added sugars¹²⁷.</p> <p>The option for additional contextual information such as %DI or HIGH/MEDIUM/LOW labelling may also support consumers to interpret abstract information (such as grams of added sugars per 100g of food) without needing to compare products^{128, 129}.</p>	<p>Incorporating added sugars into the NIP would make this information available to consumers at the point of sale. The prescribed format and standardised units of the NIP allows for product comparison.</p> <p>Seventy per cent (70%) of consumers in Australia and New Zealand use the NIP when making a food purchase for the first time with sugar information checked by consumers most frequently¹³⁰.</p> <p>Understanding a NIP requires a degree of numeracy and may not be understood by those with poor numeracy skills. However, most Australian and New Zealand consumers find the NIP to be moderately understandable, with only 3% of Australians and 2% of New Zealanders reporting that the NIP was ‘<i>not at all</i>’ understandable¹³¹.</p> <p>Inclusion of added sugars as a separate element on a NIP may lead some consumers to be confused and overestimate the sugar content of a food item^{132, 133}. This occurs where consumers believe ‘added’ sugars are in addition to the ‘total’ sugars content. However, format and wording of the NIP influenced consumer understanding with consumer</p>	Option 4 provides new information on a food label as few food manufacturers currently quantify the amount of added sugars in a food product.

¹²⁶ Food Standards Australia New Zealand, 2017. ‘Consumer Label Survey 2015 – Food labelling Use and Understanding in Australia and New Zealand, Food Standards Australia New Zealand’. Available at: [FSANZ website](#) (accessed 17 December 2018).

¹²⁷ Vanderlee, L., et al, 2015. ‘The efficacy of sugar labelling formats: Implications for labeling policy’. *Obesity*, 23: p2406-2413.

¹²⁸ Khandpur, N., Graham, D. & Roberto, C. 2017, ‘Simplifying mental math: Changing how added sugars are displayed on the nutrition facts label can improve consumer understanding’, *Appetite*, Vol. 114, p38-46.

¹²⁹ Vanderlee, L., et al, 2015. ‘The efficacy of sugar labelling formats: Implications for labeling policy’. *Obesity*, 23: p2406-2413.

¹³⁰ Food Standards Australia New Zealand, 2015. ‘Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand’. Available at: [FSANZ website](#) (accessed 13 November 2018).

¹³¹ Food Standards Australia New Zealand, 2015. ‘Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand’. Available at: [FSANZ website](#) (accessed 13 November 2018).

¹³² Laquatra, I., et al, 2015. ‘Including “added sugars” on the Nutrition Facts panel: how consumers perceive the proposed change’. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

¹³³ 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).

	Dietary Guidelines	Contextual information	Consumer understanding	New information
			understanding of added sugars in the NIP greatest when added sugars were listed beneath total sugars and indented ¹³⁴ .	
Option 5 – Advisory labels for foods high in added sugars	<p>Option 5 provides limited support to enable consumers to make food choices in line with the dietary guidelines, as it provides information only about food products containing high amounts of added sugar.</p> <p>Under Option 5, foods containing added sugars below the threshold will not be required to display the advisory label. Consequently, consumers may not be able to identify foods containing added sugar (Australian dietary guidelines) or foods with little or no added sugars (New Zealand dietary guidelines).</p> <p>Option 5 does not support consumers to take a whole-of-diet approach when assessing foods, as the advisory label would be based on the added sugars content of the product and would not consider other nutrients such as sodium or saturated fat identified in the dietary guidelines. This may imply added sugars are a more concerning nutrient.</p> <p>Depending on the style requirements of the advisory label, Option 5 may result in a lower uptake or removal of the HSR. The HSR provides an assessment of food products based on multiple risk and beneficial nutrients, and thus replacement of the HSR with an advisory label based on added sugars content only may reduce consumers’ ability to take a whole-of-diet approach when making food choices.</p>	<p>Option 5 provides some contextual information, as it provides an assessment of products that are high in added sugars, therefore removing consumer need to interpret information about added sugars. Many consumers struggle to determine what is considered ‘a lot’ for risk nutrients in foods¹³⁵, and thus Option 5 would assist consumers in that interpretation.</p> <p>However, comparison between products is limited to between those displaying and not displaying the advisory label. Consumers will not be able to compare between products that may vary in added sugars content but are not required to display an advisory label.</p> <p>Additionally, consumers may be aware to limit foods high in added sugars, but may not understand how often they should limit these foods or appropriate portion sizes.</p>	<p>Option 5 does not require numerical calculations or an interpretation against recommendations and therefore consumer understanding is expected to be very high. Reach of consumer impact may also be greater, as this option is more likely to be understood by individuals with lower literacy and numeracy such as children and individuals from disadvantaged and culturally and linguistically diverse backgrounds (CALD)¹³⁶.</p> <p>Australia and New Zealand consumers generally understand, believe and trust advisory statements on food labels, particularly short statements¹³⁷</p>	<p>Option 5 provides new information about foods that are high in added sugars. While this may be well known in certain food categories such as soft drinks and confectionary, this option may provide information about the added sugars content of some less well understood products such as processed cereals and cereal bars.</p>
Option 6 – pictorial approaches to convey the amount of sugars in a serving of food	<p>Option 6 provides some support for consumers to make food choices consistent with the dietary guidelines because it provides information about the sugars content of the food product. If added sugars were displayed in a pictorial format this could allow consumers to identify products containing added sugars (Australian dietary guidelines) and products with little or no added sugars (New Zealand dietary guidelines).</p>	<p>Depends on the pictorial approach taken. Option 6 provides some contextual information on added sugars or total sugars, by representing it in a relatable format, which could support greater consumer understanding of the quantity of sugars¹³⁸. However, the teaspoon or sugar cube options do not provide context on the recommended intake of sugar. The option of a bar or pie chart could provide contextual information</p>	<p>The main strength of pictorial representation is simplicity of message and ease of access to information.</p> <p>Depending on the pictorial approach taken, the information may be immediately apparent to consumers and relatable. This means the information could be gleaned quickly in a time-pressured environment.</p>	<p>If the pictorial approach for Option 5 related to or included added sugars, then it could provide new label information. Few food manufacturers quantify added sugar in a food product, and even fewer do so in a pictorial form. If Option 6 instead illustrated total sugars, this would not offer new information.</p>

¹³⁴ Laquatra, I., et al, 2015. ‘Including “added sugars” on the Nutrition Facts panel: how consumers perceive the proposed change’. *Journal of the Academy of Nutrition and Dietetics*, 115(11): p1758-1763.

¹³⁵ Food Standards Australia New Zealand, 2015. ‘*Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand*’. Available at: [FSANZ website](#) (accessed 13 November 2018).

¹³⁶ Signal, L., et al, 2008. ‘Perceptions of New Zealand nutrition labels by Māori, Pacific and low-income shoppers’. *Public Health Nutrition*, 11(7), p706-713.

¹³⁷ Food Standards Australia New Zealand, 2015. ‘*Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand*’. Available at: [FSANZ website](#) (accessed 13 November 2018).

¹³⁸ Campos, S., Doxey, J. & Hammond, D., 2011. ‘Nutrition labels on pre-packaged foods: a systematic review’. *Public Health Nutrition*, 14: p496–506.

	Dietary Guidelines	Contextual information	Consumer understanding	New information
	Option 6 does not support a whole-of-diet approach as it places significant emphasis on sugars. This may imply added sugars are a more concerning nutrient than others and cause consumers to place excessive importance on added sugars, ignoring other nutrients that the dietary guidelines recommend should be avoided. Option 6 also has the potential to result in the removal of more holistic information from the food label, such as the HSR.	by illustrating the proportion of sugars compared to recommended intake (once established). Option 6 supports consumers to compare products at the point of sale, and potentially without even taking the product off the shelf, if the label is highly visible and front-of-pack.	However, a strong visual image could detract the shopper from other nutrients that could be more important to focus on in the product. It may also confuse consumers if the sugars content is high and a high (good) HSR is displayed alongside it. Pictorial labelling, especially if in teaspoon form, is more accessible to a wide audience than more traditional forms of nutritional labelling. This is due to the fact that it requires significantly less numeracy and literacy skills, which is useful for children, those from disadvantaged backgrounds, or who speak English as a second language.	
Option 7 – Digital linking to off label web-based information about added sugars content	There is potential for Option 7 to be consistent with advice from the dietary guidelines, however the extent to which it does so will be dependent on final implementation details regarding what information is available on the digitally linked company website. The website information has the potential to provide holistic whole of diet information. However, the digital link (e.g. website or QR code) may occupy some of the limited space on a food label and necessitate removal of other more holistic food labelling information such as the HSR.	There is potential for Option 7 to provide considerable contextual information given a website landing page does not have the same limited space restrictions as a food label. It may be challenging for consumers to easily compare the sugars content of different food products if they need to visit multiple company websites which may present information in different formats	Option 7 relies on consumers having compatible smart phones, internet access and technological literacy and therefore may not be widely understood and accessible to all consumers and at the point of sale. Accessing the digital information may be time consuming. There are inequalities in smart-phone ownership ¹³⁹ and access to digital information ¹⁴⁰ . Technological literacy levels vary by demographic group ¹⁴¹ . This means consumers such as the aged, lower educated, lower income or Indigenous people may be less able to access and understand the digital information to make informed choices. There is also evidence that consumers may be confused about how to use QR codes ¹⁴² . For consumers that can access the digital information there is potential for the digital information to enhance consumer understanding through use of pictorial information, other languages and large font sizes.	Provided consumers have the skills and motivation to access the digital information, Option 7 has potential to present new information about sugars (such as added sugars or different types of sugars) as well as a range of other new information.

¹³⁹ Deloitte, 2017. 'Smart everything, everywhere: Mobile Consumer Survey 2017 the Australian cut'. Available at: [Deloitte website](#) (accessed 17 December 2018).

¹⁴⁰ Barraket, T. J., et al, 2018. 'Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2018'. Available at: [Digital Inclusion Index website](#) (accessed 17 December 2018).

¹⁴¹ Barraket, T. J., et al, 2018. 'Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2018'. Available at: [Digital Inclusion Index website](#) (accessed 17 December 2018).

¹⁴² Deloitte, 2017. 'Study of Electronic or Digital Link Disclosure. A Third-Party Evaluation of Challenges Impacting Access to Bioengineered Food Disclosure'. Available at: [United States Department of Agriculture website](#) (accessed 30 November 2018).

Benefits and impact analysis

A high level qualitative analysis of the benefits and impacts of the feasible options (Options 3- Statement of Ingredients, Option 4- Added sugars in the NIP and Option 6- Pictorial approaches) has been undertaken, including consideration of the groups in the community that would be affected and the economic, social and other impacts on them. This section is not intended to be a cost-benefit analysis and only considers potential impacts of the feasible options at a high level and on a qualitative basis. This section draws on feedback provided through the consultation process, particularly responses to questions about the impacts of the options on stakeholders and existing labelling elements.

Benefits

As the desired outcome of this work relates to provision of information to consumers, that is the focus of the consideration of benefits associated with the feasible options.

Information for consumers

The feasible options would benefit consumers in Australia and New Zealand by providing additional contextual information in relation to sugars to better enable them to make informed choices in support of the dietary guidelines.

Labelling that provides information to consumers at the potential point of purchase or consumption supports them to make timely decisions about the foods they purchase and/or consume. Under the status quo, consumers wanting information on the added sugars content of foods would need to access the technical Australian or New Zealand food composition databases which may not be up-to-date in relation to changes in food composition or food supply, do not allow comparison between different brands of a product, and are not designed to be a consumer resource¹⁴³. Accessing this information is not a quick or easy process and requires nutrition knowledge and mathematical skills to interpret.

All of the feasible options support consumers to identify foods containing added sugars. In particular:

- Option 3 supports consumers' ability to understand what added sugars are, identify added sugars in the statement of ingredients and assess the relative contribution of added sugars to a food compared to other ingredients.
- Option 4 supports consumers to assess the amount of added sugars in the food and compare products.
- Option 6 supports consumers to quickly assess the amount of added sugars in products and compare similar products without having to read and interpret the NIP.

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 labels¹⁴⁴, and the feasible options would particularly benefit these consumers.

¹⁴³ External websites and apps may use the information in the databases to develop consumer friendly resources however this cannot overcome the fact that the data are not brand specific and not updated with changes in the food supply.

¹⁴⁴ 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).

There may be additional benefits associated with the feasible options. These are described below.

Reformulation

The feasible options may encourage reformulation of products to reduce the sugars content as manufacturers seek an advantage over competitors. Reformulation has been observed internationally in countries that have introduced taxes on sugar-sweetened beverages¹⁴⁵ or when particular nutrients such as trans-fats must be labelled^{146,147}. This can support a reduction in sugars in the food supply and is an equitable approach because it benefits the whole population rather than those with the education and skills to read a food label¹⁴⁸.

Potential for reformulation is strongest with Option 4 and Option 6 as Option 3 does not quantify the added sugars in the food product. If Option 3 uses a bracketed list approach it may encourage reformulation as manufacturers seek to reduce the sugars content of the food in order to move sugars-based ingredients down in the order of ingredients. However, if Option 3 uses asterisks or emboldening of individual sugars-based ingredients, it may encourage manufacturers to reduce the number of different types of sugars in the product (rather than the total amount of sugars) so that the ingredients list appears to have fewer sugars-based ingredients.

While reformulation may improve a product's nutritional profile, it depends on what the added sugars removed from the product are replaced with. If added sugars are replaced with:

- saturated fat, it would increase the energy density of the product and increase saturated fat content¹⁴⁹ (dietary guidelines recommend foods containing saturated fats be limited).
- starches, it would not change the energy (kilojoule) content of the product.

Some submitters to the stakeholder consultation raised concerns about the potential for increased use of artificial sweeteners or preservatives if sugars are removed from a product. Use of artificial sweeteners and preservatives is regulated by FSANZ to ensure safety.

Support for the public health sector

The feasible options may support programs and campaigns that aim to promote the dietary guidelines to the public. For example, the label information could also be used to improve the implementation of programs that promote healthy eating and/or restrict availability of foods high in added sugars in settings such as schools, health services, sport and recreation facilities and Government offices.

Food label information could also support work to develop or improve campaigns and practical resources for consumers about how to reduce intake of added sugars. For example, consumer resources could simplify the quantified information in Option 4 as pictures such as teaspoons of sugars or charts that make comparisons against WHO guidelines about added sugars consumption.

¹⁴⁵ HM Treasury, 2018. 'Soft Drinks Industry Levy comes into effect'. Available at [United Kingdom Government website](#) (accessed 20 November 2018).

¹⁴⁶ Hawkes C, et al, 2015. 'Smart food policies for obesity prevention'. *The Lancet*, 385(9985): p2410-21.

¹⁴⁷ Shangguan, S., et al, 2019. 'A meta-analysis of food labelling effects on consumer diet behaviours and industry practices'. *Am J Prev Med*, 56(2): p300-314.

¹⁴⁸ Bernstein, J. T. & L'Abbé, M. R., 2016. 'Added sugars on nutrition labels: a way to support population health in Canada'. *Canadian Medical Association Journal*, 188(15): E373-E374.

¹⁴⁹ United States Department of Agriculture, 2017. 'An assessment of product turnover in the U.S. food industry and effects on nutrient content'. Available at: [USDA website](#) (accessed 8 January 2019).

The feasible options could also support clinicians and other health professionals when educating their patients and the public about healthy eating and selecting packaged healthy foods. However some clinicians raised concerns that food labels which excessively emphasise sugars may require them to spend more time with their patients educating them on the need to also consider saturated fat and sodium content when assessing a food product.

A unique benefit associated with Option 4 in relation to public health is that Option 4 would enable added sugars to be incorporated into the HSR algorithm. As the HSR algorithm is designed to draw upon food composition information available on the label, the lack of information about a food's added sugars content in the NIP has previously limited this potential.

Replacing total sugars with added sugars in the HSR algorithm would not penalise foods containing intrinsic sugars and there are some reports that this could improve the ability of the HSR to differentiate between discretionary and core foods^{150,151}.

Including added sugars in the HSR algorithm was considered as part of the HSR five-year review. The review report noted "if added sugars are mandated for inclusion on the NIP, their inclusion in the HSR Calculator could be further explored"¹⁵².

Another benefit of Option 4 is that it could provide data to support work to monitor trends in food composition and consumption in relation to added sugars and evaluate the effectiveness of interventions to reduce the availability or intake of added sugars. Publications from this research may help to inform future public health policies and programs. Data provided from Option 6 may also support this monitoring and research work, however, as it is less precise it may be less useful.

Healthy food choices

The feasible options provide information on food labels to support consumers to make food choices in line with the dietary guidelines. A recently published meta-analysis¹⁵³ of food labelling effects on consumer diet behaviours from 11 countries reported food labelling reduced consumer intake of nutrients such as energy and total fat, however, no significant changes were observed for other nutrients such as sodium and total carbohydrate (sugars were not assessed separately to carbohydrates).

It is recognised that food labelling alone is insufficient to facilitate behaviour change. However, as part of a comprehensive approach supporting to healthy eating, the contextual information about sugars provided by the feasible options may support consumers to make healthier food choices and not exceed the WHO recommendations for the consumption of added sugars. Consequently this could support prevention of (or reductions in) overweight and obesity and poor dental health and reduce associated health expenditure.

These benefits may be disproportionately distributed across the community. As Option 3 and 4 require consumers to have a degree of literacy and numeracy, they may not be easily understood by all population groups¹⁵⁴. Poor literacy or numeracy may be common in the

¹⁵⁰ Mendenhall, H., et al, 2017. 'Use of added sugars instead of total sugars may improve the capacity of the health star rating system to discriminate between core and discretionary foods'. *Journal of the Academy of Nutrition and Dietetics*, 117(12): p1921-30.

¹⁵¹ Peters, S.A., et al, 2017. 'Incorporating Added Sugar Improves the Performance of the Health Star Rating Front-of-Pack Labelling System in Australia'. *Nutrients*, 9(7): p701.

¹⁵² HSR five-year review report

¹⁵³ Shangguan, S., et al, 2019. 'A meta-analysis of food labelling effects on consumer diet behaviours and industry practices'. *Am J Prev Med*, 56(2): p.300-314.

¹⁵⁴ Gorton, D., et al, 2009. 'Nutrition labels: a survey of use, understanding and preferences among ethnically diverse shoppers in New Zealand'. *Public Health Nutrition*, 12(9): p1359-65.

Australian and New Zealand population^{155,156} and particularly amongst those with lower education levels and Indigenous groups^{157,158} who are also more likely to have poorer health outcomes^{159,160}. Each of the proposed options includes a level of education to support consumers to understand the labelling.

Pictorial labels (Option 6) may be more accessible to all consumers due to the simplicity and visual nature of this option¹⁶¹. This labelling may be better understood by those from disadvantaged backgrounds, those with lower levels of literacy and numeracy^{162,163} and those who speak English as a second language.

Impacts

Each of the feasible options has financial costs to implement, and broader non-financial costs. These costs are discussed below.

Impacts on the food industry

Submissions from the food industry to the stakeholder consultation indicated that each of the feasible options would impact their business. Industry identified costs associated with labelling changes including label re-design, changing other elements of the label such as nutrition content claims, printing costs, training staff, changing record keeping systems and computer programs, obtaining information from ingredient suppliers and updating websites. Industry also indicated there would be costs associated with obtaining legal advice, educating consumers about changed labelling and managing increased calls to consumer help lines.

Costs to industry may be disproportionately borne by 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.

Label re-design and printing costs are likely to be greatest for Option 6 due to the space occupied by the pictorial labels, and depending on the approach may require printing of additional colours not already on the food label. Options 3 and 4 are minor changes to existing elements of the food label and are less likely to require a major label re-design.

¹⁵⁵ Satherley, P., Laws, E. & Sok, S., 2008. *The adult literacy and life skills (ALL) survey: Overview and international comparisons*. Wellington, New Zealand: Ministry of Education. Available at: [Ministry of Education website](#) (accessed 14 November 2018).

¹⁵⁶ OECD, 2017. *Building Skills for All in Australia: Policy Insights from the Survey of Adult Skills*. OECD Skills Studies. Available [online](#) (accessed 14 November 2018).

¹⁵⁷ New Zealand Ministry of Health, 2010. *Kōrero mārama: Health literacy and Māori Results from the 2006 adult literacy and life skills survey*. Available at: [Ministry of Health website](#) (accessed 14 November 2018).

¹⁵⁸ Australian Government Department of Prime Minister and Cabinet, 2014. *Aboriginal and Torres Strait Islander Health Performance Framework 2014 Report: 2.04 Literacy and Numeracy*. Available at: [Prime Minister and Cabinet website](#) (accessed 14 November 2018).

¹⁵⁹ Australian Institute of Health and Welfare (AIHW), 2018. *Australia's Health 2018*. Available at: [AIHW website](#) (accessed 14 November 2018).

¹⁶⁰ New Zealand Ministry of Health, 2015. *Tatau Kahukura: Māori Health Chart Book 2015 (3rd edition)*. Available at: [Ministry of Health website](#) (accessed 20 December 2018).

¹⁶¹ Gorton, D., et al, 2009. 'Nutrition labels: a survey of use, understanding and preferences among ethnically diverse shoppers in New Zealand'. *Public Health Nutrition*, 12(9): p1359-65.

¹⁶² Satherley, P., Laws, E., & Sok, S., 2008. *The adult literacy and life skills (ALL) survey: Overview and international comparisons*. Wellington, New Zealand: Ministry of Education. Available at: [Ministry of Education website](#) (accessed 14 November 2018).

¹⁶³ OECD, 2017. *Building Skills for All in Australia: Policy Insights from the Survey of Adult Skills*. OECD Skills Studies. Available [online](#) (accessed 14 November 2018).

For Options 4 and Option 6¹⁶⁴ there would also be costs associated with quantifying added sugars in foods, which may be complex for foods which contain both naturally occurring sugars and added sugars, or fermented foods, as there are no analytical methods to quantify a food's added sugars content. Some industry submissions raised concerns about the lack of analytical methods and some called for assistance in the form of tools and resources that may support implementation of this labelling option, such as a NIP calculator or industry guidance. It is relevant to note that for foods which only contain added sugars, such as soft drinks and some confectionary, concerns about the lack of analytical methods are not relevant as total sugars (which is already required to be labelled) is equivalent to added sugars and therefore added sugars could easily be quantified. It is also relevant to note that methods to quantify a food's added sugars content through a recipe-based calculation approach are available¹⁶⁵.

Some industry submissions made estimates of the costs involved in changing food labels to include more information about sugars, or gave examples of the costs involved in other label changes such as Country of Origin Labelling. However, industry submissions noted that it was difficult to accurately predict costs associated with label changes until more implementation details are known such as types of sugars that would be considered as 'added sugars' and which food products would be affected by labelling changes. Transition periods also impact industry costs as longer transition periods allow industry to make label changes as part of otherwise scheduled label updates. Because of these factors, the cost estimates provided by industry varied considerably with estimates ranging from \$150 AUD up to \$10,000 AUD per product line/stock keeping unit (SKU) to incorporate added sugars information on food labels. Industry was asked whether costs associated with label changes would be passed onto consumers however no consistent response was received, with many noting that more implementation details would be required to fully consider that issue.

Submissions from the public health and academic sectors cited an economic analysis¹⁶⁶ prepared in 2014 which made estimates of the cost of food label changes of varying complexities. Costs associated with a label change of minor complexity (e.g. change to the contents of a NIP but no change to the label layout) were estimated to be \$2,390 AUD per SKU. Label changes of a medium complexity (e.g. change to the contents of a NIP involving changes to the label layout) were estimated to be \$5,624 AUD per SKU.

As this document does not intend to be a detailed economic analysis, comprehensive costs have not been assessed and a complete cost analysis would be undertaken before the implementation of the any option.

Industry also noted that changes to sugars labelling may impact on trade opportunities and require products to be labelled for export markets differently to products for domestic markets (which exporters currently have to do). Some industry submissions noted that added sugars labelling is not part of the CODEX food labelling standards¹⁶⁷ which set a minimum nutrition labelling standard to help to facilitate trade. Trade impacts and potential notifications to the World Trade Organization would be considered as part of the implementation of any option.

¹⁶⁴ Depending on the pictorial approach taken.

¹⁶⁵ Louie, J.C., Tapsell, L. C., 2015. 'Association between intake of total vs added sugar on diet quality: a systematic review'. *Nutrition Reviews*, 73(12): p837–857.

¹⁶⁶ PricewaterhouseCoopers, 2014. 'Health Star Rating System Cost Benefit Analysis'. Available at: [Food Regulation Website](#) (accessed 15 November 2018).

¹⁶⁷ CODEX Alimentarius is the collection of standards, guidelines and codes of practice adopted by the Codex Alimentarius Commission. The Commission is part of the Joint Food and Agriculture Organization (FAO) and World Health Organization (WHO) food standards program to promote consumer health and promote fair practices in food trade.

Impacts on other elements of a food label

Given that a food label is a limited space, it is possible that new sugars information may push off other voluntary elements of food label, such as the HSR. As the HSR takes into account several nutrients and food components (energy, saturated fat, sodium and fruit, vegetable, nut and legume content) 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. New sugars labelling information could also be adopted at the expense of non-health related information such as recycling messages.

Due to the label space occupied by pictorial labelling, Option 6 is most likely to result in other information being removed from the food label. Most submissions from the food industry indicated this option would require removal of another element of the food label due to label space limitations, with some industry submissions indicating Option 6 would require the removal of the HSR. Some submitters also indicated they believed two front-of-pack pictorial labels would be confusing for consumers. However, if Option 6 was restricted to only sugary beverages / sugar-sweetened beverages, it would limit this impact as the full HSR is not widely adopted in this product category¹⁶⁸.

For Option 4, including added sugars in the NIP would only involve one additional line in the existing NIP, which is not a significant label change. However, some industry submissions commented that this option may require other label elements to be removed. For example, one industry submitter commented they may remove voluntary information from the NIP such as potassium or trans-fat content, and one submitter commented that products in small packaging may require a label re-design.

The option least likely to necessitate removal of other information on the food label is Option 3 as it proposes revisions just to the existing statement of ingredients and therefore would not impact on other elements of a food label.

Impacts and costs to Government regulators

The feasible options would impact Government regulators, the extent to which would depend on the implementation mechanism (e.g. voluntary or mandatory). If label changes were mandated in the Code, food regulators would be responsible for enforcement whereas if label changes were introduced outside of the Code, regulators of consumer law may be responsible.

Submissions from Government food regulators considered the feasible options may increase enforcement and compliance activities, particularly in the initial period of new labelling. To enforce these options within existing resources, other food regulation and enforcement activities may need to be deprioritised. Food regulators may also need to provide more education to industry to support the implementation of any of the feasible options.

Options 4 and 6 (depending on the pictorial approach taken) would have a greater impact on regulators as they would be required to verify the quantified added sugars information on the label. No food regulators that made submissions to the consultation expressed concerns that Options 4 and 6 could not be regulated or enforced, however, one other food regulator has since expressed concerns about enforcement due to the lack of analytical methods to quantify a food's added sugar content. One submission from a food regulator commented that enforcement challenges associated with quantified added sugars labelling would not be unique as similar challenges exist with current regulations. For example, currently products

¹⁶⁸ Brownbill, A., Braunack-Mayer, A. & Miller, C., 2018. 'What's on the labels of Australian beverages?'. *Health Promotion Journal Australia*, 30(1): p114-118.

which contain a mixture of naturally occurring and added sugars may carry a 'no added sugar' claim, and the enforcement of such claims may be conducted using non-analytical methods, such as recipe verification. Enforcement methods and responsibilities would further be considered as part of implementation of any option.

It is relevant to note in the United States, food manufacturers will be required to maintain records to support declarations of nutrients including added sugars because there are no analytical methods to distinguish between added and intrinsic sugars. This approach is not unique to declarations of a food's added sugars content and will also be used for various forms of dietary fibre, vitamin E and folate. The records will allow regulators to verify the declared amount of each nutrient and that such amount is truthful and not misleading¹⁶⁹.

Impacts on consumer understanding

Inclusion of added sugars information on nutrition labelling may lead some consumers to place too much emphasis on added sugars at the expense of other negative nutrients such as saturated fat and sodium, resulting in less accurate evaluations of a food's overall healthiness¹⁷⁰.

Identifying added sugars on a food label separately to total sugars may lead consumers to believe that added sugars were chemically different to other sugars, or have a different energy (kilojoule) content than intrinsic sugars, however, education and label design can assist. Consumers could also be confused if a product was low in added sugars (and therefore considered to be healthy), but carried a low to moderate HSR (the higher the HSR, the healthier the product).

This potential negative impact applies to each of the feasible options, however, given the size and prominence of pictorial labelling, Option 6 would draw most attention from consumers. Emphasising added sugars on the label under Option 6 does not support a holistic approach to food labelling and does not recognise the advice in the dietary guidelines about the need to also limit consumption of saturated fat and sodium. However, if Option 6 is limited only to foods such as sugary beverages / sugar-sweetened beverages, this concern may not apply as these beverages are typically low in saturated fat and sodium.

For Option 4, the NIP already requires saturated fat and sodium to be listed, so listing added sugars in the NIP in the same format as these nutrients would not over emphasise added sugars.

For Option 3, if added sugars were emboldened in the ingredients list, there may be possible confusion with allergen labelling. If asterisks were used to identify added sugars, consumers may be confused with claim information where a manufacturer may use an asterisk to direct consumers to more information elsewhere on the label.

Food products for which the feasible options would apply

It is recognised that some foods make a greater contribution to intakes of added sugars in Australia and New Zealand, and consideration was given to whether the feasible labelling options should only be applied to these main contributors.

Option 3 and Option 4 should apply to all foods as the statement of ingredients and NIP are already required on most food labels in a consistent format to allow comparison. Changing

¹⁶⁹ United States Department of Health and Human Services, Food and Drug Administration, 2016. 'Food Labelling: Revision of the Nutrition and Supplement Facts Labels'. Available at: [Federal Register](#) (accessed 22 February 2019).

¹⁷⁰ 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).

these labelling elements for sugars on some foods, but not all, may be confusing to consumers and restrict the opportunity for compare products. Stakeholder support was strongest for applying Option 3 and Option 4 to all foods.

Many non-industry submitters also supported applying Option 6 to only specific food categories, with strong support for limiting Option 6 to sugary beverages / sugar-sweetened beverages and some submitters also suggesting labelling confectionary. Submitters considered this would assist to inform consumers of the sugars content of these products in an easy-to-understand format and recognise the significant contribution these foods make to consumption of added and total sugars in the diet. In relation to sugary beverages / sugar-sweetened beverages, the rationale for this position was that:

- there is low uptake of the HSR star icon across non-alcoholic beverage products^{171, 172, 173} (including sugar-sweetened beverages) (this has also since been confirmed in the HSR five-year review report¹⁷⁴). The low coverage of the HSR star icon in this category would therefore minimise the risk of a conflict between the two labelling approaches;
- that sugary beverages / sugar-sweetened beverages have few other negative nutrients, and therefore the concerns about over-emphasising a single nutrient are less relevant; and
- the fact that the majority of evidence supporting this option is focused on these beverages^{175, 176, 177}.

This suggestion warrants further consideration as many of negative impacts of Option 6 can be reduced if Option 6 is applied only to sugary beverages / sugar-sweetened beverages. The focus on sugary beverages / sugar-sweetened beverages is justified as these beverages are the main source of added sugars in the diet¹⁷⁸ and there is strong evidence that these beverages are positively associated with body weight or obesity^{179, 180, 181, 182}.

Submissions from industry suggested food product categories that should be excluded from sugars labelling. All submissions from the alcohol industry considered that alcoholic beverages should be excluded from any form of added sugars labelling as labelling added

¹⁷¹ Brownbill, A., Braunack-Mayer, A. & Miller, C., 2018. 'What's on the labels of Australian beverages?'. *Health Promotion Journal Australia*, 30(1): p114-118.

¹⁷² Where non-alcoholic beverages are using the HSR they more often use the 'energy' icon which presents information on the kilojoules per 100g.

¹⁷³ New Zealand Food Safety, 2018. 'Health Star Rating: Monitoring Implementation for the Five Year Review'. Available [online](#).

¹⁷⁴ HSR five-year review report.

¹⁷⁵ Bleich, S. N., et al, 2014. 'Reducing sugar-sweetened beverage consumption by providing caloric information: how Black adolescents alter their purchases and whether the effects persist'. *American Journal of Public Health*, 104: p2417-24.

¹⁷⁶ Mantzari, E., et al, 2018. 'Impact of Warning Labels on Sugar-sweetened Beverages on Parental Selection: An Online Experimental Study'. *Preventive Medicine Reports*, 12: p259-267.

¹⁷⁷ Billich, N., et al, 2018. 'The effect of sugar-sweetened beverage front-of-pack labels on drink selection, health knowledge and awareness: An online randomised controlled trial'. *Appetite*, 128: p233-241.

¹⁷⁸ Australian Bureau of Statistics, 2016. 'Australian Healthy Survey: Consumption of added sugars, 2011-12'. Available at: [Australian Bureau of Statistics](#) (accessed 23 April 2018).

¹⁷⁹ Malik, V.S., et al, 2013, 'Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis'. *American Journal of Clinical Nutrition*, 98(4): p1084-1102.

¹⁸⁰ Te Morenga, L., Mallard, S. & Mann, J., 2013. 'Dietary sugars and body weight: a systematic review and meta-analysis of randomised controlled trials and cohort studies'. *BMJ*, 346: e7492.

¹⁸¹ Luger, M., et al, 2017. 'Sugar-sweetened beverages and weight gain in children and adults: A systematic review from 2013-2015 and a comparison with previous studies'. *Obesity Facts*, 10: p674-693.

¹⁸² Woodward-Lopez, G., Kao, J. & Ritchie, L., 2011. 'To what extent have sweetened beverages contributed to the obesity epidemic?'. *Public Health Nutrition*, 14(3): p499-509.

sugars on alcoholic beverages may confuse or mislead consumers. The alcohol industry noted that some of the sugars which are added to produce an alcoholic beverage are fermented and therefore the amount of sugars that are added to an alcoholic beverage is greater than the total sugars in the product that is sold.

Some industry submitters considered that 'special purpose foods' such as infant formula which are regulated under Part 2.9 of the Code should be exempt as these products have compositional requirements and are designed for specific population groups that have unique nutritional needs.

One submission representing the confectionary industry considered confectionary should not require added sugars to be labelled because consumers understood confectionary to be 'treat' foods.

Other recommended exemptions included foods in single small packages.

The issue of exemptions for particular foods or food categories will be considered further as part of the implementation of any option(s).

Combinations of the feasible options

Consideration was given to whether combining Option 4 with any of the other feasible options could further enhance Option 4 in achieving the desired outcome. It is important to note that education is part of all of the proposed options, and therefore it was not necessary to consider combining Option 4 with Option 2.

Combining Option 4 with Option 3 was not seen to enhance the effectiveness of Option 4. If added sugars are quantified in the NIP there would be no need to more clearly identify added sugars in the statement of ingredients to achieve the desired outcome of this work.

Combining Option 4 with Option 6 offers the potential to improve consumer understanding and increase access to sugars information to consumers with poor numeracy skills. However, the risks associated with the prominence and focus on sugars with Option 6 remain. If Option 6 applies only to sugary beverages / sugar-sweetened beverages, then this combination offers potential.

Evaluation and conclusion

Net benefit

A high-level preliminary assessment of the impacts of the feasible options was undertaken to determine which of the feasible options is likely to have the greatest net benefit. A quantitative economic analysis of the costs and benefits was not undertaken, however this would be performed before the implementation of any changes to food labelling in relation to sugars.

A score between 1 and 3 was assigned to each of the costs and benefits for the feasible options; a score of 3 represented a strong cost or benefit. Table 7.1.1 presents the assigned scores.

While the initial consultation proposed to apply Option 6 to all packaged foods and drinks, feedback from the consultation identified there is merit in considering Option 6 if it is applied only to sugary beverages / sugar-sweetened beverages, and therefore this option was also assessed.

It is relevant to note that no weighting was given to the impacts of the feasible options in this analysis is only a high-level assessment.

This qualitative preliminary assessment of the feasible options indicated that Option 4 and Option 6 (applied only to sugary beverages / sugar-sweetened beverages) offer the greatest net benefit.

7.1.1- Assessment of potential impacts of the feasible options

	Option 3 (Statement of ingredients)	Option 4 (Added sugars quantified in the NIP)	Option 6 (Pictorial approaches- if applied to all foods)	Option 6 (Pictorial approaches - if applied only to sugary/ sugar-sweetened beverages)
Benefits				
Information for consumers	1	2	3	3
Food reformulation	1	3	3	2
Public health sector	1	3	2	2
Healthy food choices	2	2	3	3
<i>Sum of benefits</i>	5	10	11	10
Impacts				
Impacts on the food industry	1	2	3	1
Impacts on food label	1	1	3	2
Impacts on food regulators	1	2	2	2
Impacts on consumer understanding	3	1	3	2

	Option 3 (Statement of ingredients)	Option 4 (Added sugars quantified in the NIP)	Option 6 (Pictorial approaches- if applied to all foods)	Option 6 (Pictorial approaches - if applied only to sugary/ sugar-sweetened beverages)
<i>Sum of costs</i>	6	6	11	7
<i>Net benefit</i>	-1	+4	0	+3

Option with greatest potential

This preliminary analysis of the policy options has identified that Option 4 has the greatest potential as it best meets the desired outcome and provides a positive net benefit.

Costs associated with Option 4 are minimised as it draws on an existing element of the food label, the NIP, so therefore it is unlikely to necessitate major label redesign costs for industry or confuse consumers by overly emphasising added sugars at the expense of other nutrients of concern.

Applying Option 6 to only sugary beverages / sugar-sweetened beverages also warrants further consideration. As one of the justifications for applying option 6 only to sugary beverages / sugar-sweetened beverages was the low coverage of the HSR star icon on beverages, it is recommended that this option be considered further following the recommendations from the HSR five-year review and the Forum's response to these recommendations. One of the recommendations from the HSR five-year review is that a target be set that by 2023, the HSR should be displayed on 70% of eligible products¹⁸³.

¹⁸³ HSR five-year review report

Implementation and next steps

Implementation

This policy paper represents a preliminary analysis of potential options for labelling of sugars on packaged foods and drinks. It is acknowledged that a further consultation and analysis is required to consider the full costs and impacts of Option 4 and implementation details. As food labelling is regulated by FSANZ, these issues are best considered by the technical experts at FSANZ rather than FRSC which focuses more on policy issues.

It is recommended that the Forum request FSANZ to review nutrition labelling for added sugars in light of the analysis and conclusions in this report.

Under the legislated requirements in the *FSANZ Act 1991*, FSANZ is required to consider whether the costs to the community, government and/or industry outweigh the benefits; and that there are no other more cost-effective measures. It is noted that FSANZ undertakes an independent assessment and may subsequently determine that Option 4 is not the best option to deliver greatest net community benefit. Any Council of Australian Governments (COAG) requirements for regulation impact assessment would be discussed with the Office of Best Practice Regulation (OBPR).

In reviewing nutrition labelling for added sugars it is recommended that FSANZ consider:

- consumer understanding of added sugars,
- NIP layout and formatting that could support consumer understanding and interpretation of added sugars information,
- implementation and technical issues such as which sugars are considered to be added sugars,
- ensuring that the sugars which are considered to be added sugars is unambiguous, comprehensive and based on evidence,
- methods for calculating and quantifying added sugars, and tools and support for industry and regulators to quantify added sugars in foods,
- potential changes to claims such as 'no added sugar' in the Code to ensure there are no inconsistencies in the Code or consumer confusion in relation to sugars labelling,
- the most appropriate regulatory approach (e.g. mandatory or voluntary labelling),
- potential impacts on trade, including whether a technical barriers to trade notification is required,
- relevant transition periods and alignment of transition periods for changes to other labelling standards (where relevant), and
- exemptions for particular product categories where, for example, declarations of added sugars may be inappropriate, confusing or misleading to consumers.

If Option 6 is to be considered further, key issues to consider are:

- outcomes of the HSR review in relation to beverages,
- which beverages are considered to be sugary beverages and sugar-sweetened beverages,
- whether the pictorial labels should be applied to sugary beverages, sugar-sweetened beverages or the broader category of beverages (to enable comparison), whether the pictorial labels would present total or added sugars, and
- consumer understanding of pictorial labels.

Feedback provided by stakeholders on these issues through the FRSC stakeholder consultation will be provided to FSA NZ for consideration.

Attachment A – 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 2011-12¹⁸⁴. 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 Code^{185,186}, while ‘free sugars’ referred to the WHO definition of free sugars¹⁸⁷. 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 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.

¹⁸⁴ Australian Bureau of Statistics, 2016. ‘*Australian Healthy Survey: Consumption of added sugars, 2011-12*’. Available at: [Australian Bureau of Statistics](#) (accessed 20 July 2016).

¹⁸⁵ Using the second definition of ‘sugars’ in the Code. Includes sucrose, fructose, dextrose, lactose and sugar syrups such as glucose syrup.

¹⁸⁶ 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).

¹⁸⁷ 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).

Aboriginal and Torres Strait Islander people consumed 15 grams (almost 4 teaspoons) more free sugars on average than non-Indigenous people¹⁸⁸. 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 recommendation¹⁸⁹.

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% respectively¹⁹⁰.

ABS analysis of changes in population's consumption of sugars between the 1995 and 2011-12 national dietary surveys¹⁹¹ 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 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.

¹⁸⁸ 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)

¹⁸⁹ Australian Bureau of Statistics, 2016. 'Australian Healthy Survey: Consumption of added sugars, 2011-12'. Available at: [Australian Bureau of Statistics](#) (accessed 20 July 2016).

¹⁹⁰ 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)

¹⁹¹ Australian Bureau of Statistics 2017, 'Consumption of added sugars- A comparison of 1995 to 2011-12. Available at: [Australian Bureau of Statistics](#)

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 recalls¹⁹².

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^{193,194}. The Otago researchers applied a ten-step protocol¹⁹⁵ 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.

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.

¹⁹² 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.

¹⁹³ 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).

¹⁹⁴ Kibblewhite R.L., 2016. 'Estimating free sugars intake in New Zealand' [Thesis]. Dunedin, New Zealand: University of Otago. Available at: [University of Otago](#) (accessed 23 April 2018).

¹⁹⁵ Louie J.C.Y., et al., 2015. 'A systematic methodology to estimate added sugar content of foods'. *European journal of clinical nutrition*. 69(2); 154-61.

Overweight and obesity in Australia and New Zealand

Australia

High body mass index¹⁹⁶ accounted for 8.27% of the total disease burden in Australia in 2016¹⁹⁷ and was the leading risk factor contributing to total disease burden¹⁹⁸. 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 burden¹⁹⁹.

For Australians aged 18 years and over, the prevalence of overweight and obesity increased in Australia from 56.3% in 1995 to 67.0% in 2017-18²⁰⁰. 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 2017-18 (24.9%)²⁰¹.

In 2017-18, the proportion of adults aged 18 years and over who were overweight or obese increased with relative disadvantage. Seven in ten (71.8%) adults living in the areas of most disadvantage (first quintile) were overweight or obese in comparison to six in ten (62.6%) in the least disadvantaged (fifth quintile). Rates of overweight and obesity also varied by remoteness areas. In 2017-18, adults aged 18 years and over living in inner regional, and outer regional and remote Australia were more likely to be overweight or obese than those living in major cities (72.4% and 72.2% compared with 65.0% respectively)²⁰².

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 population²⁰³.

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)²⁰⁴. 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).

¹⁹⁶ defined as a body mass index of 22.5kg/m² or greater

¹⁹⁷ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

¹⁹⁸ 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.

¹⁹⁹ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 3 April 2018).

²⁰⁰ Australian Bureau of Statistics, 2018. 'National Health Survey: First Results, 2017-18'. Available at [Australian Bureau of Statistics](#) (accessed 9 January 2019).

²⁰¹ Australian Bureau of Statistics, 2018. 'National Health Survey: First Results, 2017-18'. Available at [Australian Bureau of Statistics](#) (accessed 9 January 2019).

²⁰² Australian Bureau of Statistics, 2018. 'National Health Survey: First Results, 2017-18'. Available at [Australian Bureau of Statistics](#) (accessed 9 January 2019).

²⁰³ 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).

²⁰⁴ PricewaterhouseCoopers, 2015. 'Weighing the cost of obesity: A case for action'. Available at: [PwC](#) (accessed 3 April 2018).

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 burden²⁰⁵. 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 smoking²⁰⁶. 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 2016/17²⁰⁷. 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 differences²⁰⁸. 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 neighbourhood²⁰⁹. 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 obese²¹⁰.

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 lives²¹¹. 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 caries²¹². 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 2.63²¹³.

²⁰⁵ Institute for Health Metrics and Evaluation, 2016. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

²⁰⁶ Institute for Health Metrics and Evaluation, 2015. 'GBD Compare Viz Hub'. Available at: [Institute for Health Metrics and Evaluation](#) (accessed 29 March 2018).

²⁰⁷ 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).

²⁰⁸ 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).

²⁰⁹ 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).

²¹⁰ 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).

²¹¹ 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).

²¹² 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).

²¹³ 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).

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 average²¹⁴.

The direct costs of dental disease in Australia (expenditure by individuals and governments on dental services) was estimated to be was \$7.690 billion in 2009–10²¹⁵. In 2015-16, an estimated \$9.9 billion was spent on oral health²¹⁶.

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 survey²¹⁷ (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.

²¹⁴ 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).

²¹⁵ 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)

²¹⁶ 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).

²¹⁷ 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).

Attachment B – 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"> • Portion Control – promoting and communicating information about appropriate portion sizes and consumption of portion sizes that align with the Guidelines; • Communication, education and meal planning on whole foods and total diet – based on the Australian Dietary Guidelines (including limiting intakes of added sugars; and • Reformulation activities optimising the appropriate balance of nutrients and ingredients in food in manufactured foods, including added sugars. 	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

Type of Policy/Program	Jurisdiction	Description summary	Target audience
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)	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,	Adults and parents of children 0–12 years

Type of Policy/Program	Jurisdiction	Description summary	Target audience
	implement this campaign (developed in WA)	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.	
Make Healthy Normal campaign	NSW	Aims to support healthy eating and active living in NSW, and includes targeted consumer messaging to replace sugar-sweetened beverages with water as part of the key campaign message 'Make Water Your Drink'.	NSW population
Family Food Patch – YouTube 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 Change 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, TV commercials, social media. Key messages of campaign include: <ol style="list-style-type: none"> 1. Add fruit and veg to your meal; 2. Have smaller portion sizes; Cut back on sugary drinks; and <ol style="list-style-type: none"> 3. Choose healthier when eating out. 	All ages

Settings based food and drink policies

Type of Policy/Program	Jurisdiction	Description summary	Target audience
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	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. Some jurisdictions include additional guidelines for:	Staff working at these facilities and visitors

Type of Policy/Program	Jurisdiction	Description summary	Target audience
		fundraising, advertising and sponsorship; workplace health education programs; and Guidelines for retail food outlets (e.g. cafeterias, cafes, coffee shops – implemented by WA, Victoria and SA).	
Healthy eating guidelines for government schools	Australian Government, Australian States and Territories	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. 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.	School children
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
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"> Increasing fruit and veg; 	Non-government organisations, local government,

Type of Policy/Program	Jurisdiction	Description summary	Target audience
		<ul style="list-style-type: none"> Reducing sugar-sweetened beverages; and Increase access to nutritious food. 	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 Food-Checker .	Schools, early years services, workplaces, sport and recreation centres and health services.
Healthy Kids Menu 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"> Free tap water is easily accessible; Meal deals do not include soft drinks containing sugar or artificial sweeteners; and Guidance on desserts on the menu. <p>To be voluntarily adopted by industry (restaurants, cafes, hotels, clubs) in South Australia. The draft Code was 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 0–18 years

Attachment C – Stakeholder feedback from consultation

Introduction

This report has been prepared to provide further stakeholder feedback from the consultation on the Consultation Regulatory Impact Statement (CRIS): Labelling of sugars on packaged food and drinks that was undertaken from 19 July – 21 September 2018.

The report includes more detailed stakeholder feedback beyond what has been provided in the Policy Paper: Labelling of sugars on packaged foods and drinks (Policy Paper).

Details of the potential impacts of options 2, 5 and 7 are provided in this report, as the assessment of the options performed for the Policy Paper identified these options were not feasible options and therefore they not considered in the benefit and impact analysis in the Policy Paper. As options 3, 4 and 6 were considered feasible options, the potential impacts of these are discussed in the benefit and impact analysis section of the Policy Paper and not in this report.

Option 2 - Education on how to read and interpret labelling information about sugars

Feedback on this option

It should be noted that the CRIS proposed that option 2 would be implemented as stand-alone action without any label changes. All other options have consumer education built into their implementation. While majority of stakeholders did not believe this option would impact them positively or would be effective in meeting the desired outcome of this consultation, feedback was largely provided on consumer education being implemented in combination with other proposed options.

Food industry

The majority of food industry submissions (19) believed this option would be effective in reaching the desired outcome, with one (1) considering it would be ineffective. A further eight (8) submissions noted that consumer education is only one component of the desired outcome, therefore supported this option in combination with a label change.

Overall, the food industry was supportive of an approach that required no label changes, therefore having less of a financial impact on their business. There was very strong support for a whole-of-diet approach to education (20), with consideration to existing labelling systems (e.g. HSR System and Dietary Intake Guide) and existing initiatives (e.g. Healthy Food Partnership).

One (1) submission noted the minimal consumer education that has taken place since the Australian Dietary Guidelines (ADGs) were released in 2013. A 2016 food industry survey shows just 22% of consumers are aware of the ADGs recommendations²¹⁸.

²¹⁸ Roy Morgan Research, 2016. *Dairy Monitor Wave 12 Report, 2017. Dairy Australia Community Tracking*.

Some support (7) was given to a targeted approach to an education campaign, noting that in New Zealand (comparably to Australia²¹⁹) rates of obesity vary considerably between different ethnic and socioeconomic groups²²⁰.

Public health

This stakeholder group overwhelmingly (31) felt that this option would be ineffective in reaching the desired outcome of this work without concurrent label changes. In considering an education campaign, support was provided to a campaign that encompassed a whole-of-diet approach (12), which avoided negative messaging of 'cutting out' or 'quitting' sugar. It was recommended that this campaign promote the awareness and understanding of the dietary guidelines.

As with other groups, many of the public health submissions (19) were concerned with the potential for an education campaign to worsen inequities, therefore a targeted approach with simple messaging was supported (11).

Government²²¹

No (0) submissions from this group considered that this option as a standalone action would be effective in achieving the desired outcome of this work. Reasons for this position were that given the dietary guidelines emphasise limiting foods containing added sugars, current food labelling does not assist consumers to make informed choices in support of the guidelines with regard to the consumption of added sugars. Government submissions argued that under the status quo consumers do not have access to the information required to put the education into practice.

A sustained education campaign, combined with label amendments was largely supported by government, with three (3) submissions supporting the campaign taking a whole-of-diet approach, based on the dietary guidelines. Further support was given to a targeted approach.

Others e.g. consumer advocates

No (0) submissions from this group believed that this option as a standalone action would be effective in reaching the desired outcome of this work. With one submission citing a recent CHOICE survey that found only 1.6% of people surveyed supported education on current labels, without any accompanying label change.

Submissions argued for a multi-pronged approach to support label use and potentially behaviour change such as the UK Sodium Reduction Strategy which resulted in a 15 per cent reduction in the sodium intake of UK adults over a seven-year period²²².

Consumers

The majority of submissions from members of the public (42) found this option to be ineffective in addressing the policy issue and achieving the desired outcome. However, most submissions were supportive of education combined with labelling changes.

²¹⁹ Menigoz, K., et al, 2016. 'Ethnic differences in overweight and obesity and the influence of acculturation on immigrant bodyweight: evidence from a national sample of Australian adults'. *BMC public health*, 16(1): p932.

²²⁰ 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).

²²¹ Government includes state and territory Governments in Australia, New Zealand Government Ministries and New Zealand local Government agencies.

²²² He, F.J., Brinsden, H., MacGregor, G., 2014. 'Salt reduction in the United Kingdom: a successful experiment in public health'. *Journal of Human Hypertension*, 28: p345-352.

Impacts of this option

Impacts on the food industry

The majority of food industry submissions (15) believed a government run education campaign could be supported by current industry initiatives to promote the dietary guidelines and encourage healthy choices (5).

Support was given to using existing dietary guideline resources to minimise costs and maximise impact. Three (3) submissions mentioned substantial education campaigns that have been undertaken by the food industry to support the HSR System and other healthy eating initiatives, based on this experience some submissions mentioned there would be a financial impact on the food industry if it were to play a role in implementing the education.

Impacts on public health

Overall, the public health sector, including researchers and academics sector felt an education campaign would support health care professionals to meet clients' needs and potentially provide public health practitioners with a further credible resource to incorporate within nutrition initiatives. Further submissions stated that consumers having a better understanding of food labelling would potentially have a positive impact on their work.

However, seven (7) submissions stated that this option would require additional resources, especially to ensure messaging was received by all consumer groups. Citing that the impacts of standalone nutrition education interventions are generally modest²²³.

Impacts on government

Government submitters expressed that any education campaign is likely to financially impact them as it would likely be a jointly funded initiative.

Further impacts on jurisdictional resourcing would include Government promotion, information dissemination and warehousing of any hard copy education materials, which may divert funds from other consumer education needs.

Nevertheless, this option would support Government initiatives to increase knowledge and skills necessary to make healthier purchasing decisions and curb the rise in overweight and obesity. In turn this is linked with a decreased burden on the health system, including oral health services^{224, 225, 226}.

Impacts on consumers

The vast majority of members of the public felt this option would either impact them negatively (18) or not at all (38). Some members of the public (17) welcomed further education on reading food labels and voiced their confusion at the current information or lack of sufficient information to make an informed choice in relation to added sugars. Very few (3) members of the public felt they were already well educated in how to identify added sugars in foods. Some members of the public mentioned the need to be able to quickly compare the

²²³ Brug, J., 2008. 'Determinants of healthy eating: motivation, abilities and environmental opportunities'. *Family Practice*, 25: pi50-i55.

²²⁴ Wang, C.Y., et al, 2011. 'Health and economic burden of the projected obesity trends in the USA and the UK'. *The Lancet*, 378(9793): p815-825.

²²⁵ Hossain, P., Kavar, B. & El Nahas, M, 2007. 'Obesity and Diabetes in the Developing World — A Growing Challenge'. *The New England Journal of Medicine*, 356: p213-215.

²²⁶ Al-Zahrani, M., Bissada, N. & Borawski, E., 2003. 'Obesity and Periodontal Disease in Young, Middle-Aged, and Older Adults'. *Journal of Periodontology*, 74(5): p610-615.

added sugars in products while shopping (3), especially with children or to assist in diabetes management (6), which they felt would remain difficult without label changes.

Nineteen (19) members of the public noted that making an informed decision on the content of added sugars in foods would require consumer motivation and would likely benefit the already well-informed consumer.

Concerns were raised from all stakeholder groups regarding the potential impact on the community through increasing inequalities if an education campaign is not sufficiently targeted or tailored. This includes the potential to increase existing inequalities for those with poor literacy or numeracy^{227,228} particularly amongst those with lower education levels and Indigenous groups^{229,230} who are also more likely to have poorer health outcomes^{231,232}.

Furthermore, Māori households are less likely to have access to telecommunications including internet, mobile phone and telephone than those living in non-Māori households²³³. Therefore, internet based campaigns would likely have limited reach to this target population. Older consumers, and those with lower levels of education and income have also been found to have the greatest difficulty interpreting nutrition labels²³⁴.

However, there is potential for a sufficiently targeted education campaign to decrease these inequalities, as a campaign may focus on particular segments of the community, and mould messaging to assist in consumer understanding and reach of the campaign.

Although the desired outcome of this work is focussed on providing consumers with informed choice, nutrition knowledge has been found to be supportive of consumers' use of nutrition labels²³⁵. Use of nutrition labels has further been linked to purchase of healthier products^{236,237}. Therefore, three (3) submissions linked informed choice to the potential for consumer behaviour change.

²²⁷ Satherley, P., Laws, E. & Sok, S., 2008. *The adult literacy and life skills (ALL) survey: Overview and international comparisons*. Wellington, New Zealand: Ministry of Education. Available at: [Ministry of Education website](#) (accessed 14 November 2018).

²²⁸ OECD, 2017. *Building Skills for All in Australia: Policy Insights from the Survey of Adult Skills*. OECD Skills Studies. Available [online](#) (accessed 14 November 2018).

²²⁹ New Zealand Ministry of Health, 2010. *Kōrero mārama: Health literacy and Māori Results from the 2006 adult literacy and life skills survey*. Available at: [Ministry of Health website](#) (accessed 14 November 2018).

²³⁰ Australian Government Department of Prime Minister and Cabinet, 2014. *Aboriginal and Torres Strait Islander Health Performance Framework 2014 Report: 2.04 Literacy and Numeracy*. Available at: [Prime Minister and Cabinet website](#) (accessed 14 November 2018).

²³¹ Australian Institute of Health and Welfare (AIHW), 2018. *Australia's Health 2018*. Available at: [AIHW website](#) (accessed 14 November 2018).

²³² New Zealand Ministry of Health, 2015. *Tatau Kahukura: Māori Health Chart Book 2015 (3rd edition)*. Available at: [Ministry of Health website](#) (accessed 20 December 2018).

²³³ New Zealand Ministry of Health, 2013. *Socioeconomic indicators, by gender, Maori and non-Maori, 2013*. Available at: [Ministry of Health website](#) (accessed 30 December 2018).

²³⁴ Cowburn, G. & Stockley, L., 2005. 'Consumer understanding and use of nutrition labelling: a systematic review'. *Public Health Nutrition*, 8(1): p21-28.

²³⁵ Miller, L. & Cassidy, D. 2015. 'The effects of nutrition knowledge on food label use. A review of literature'. *Appetite*, 92: p.207-216.

²³⁶ Mhurchu, C.N., et al, 2018. 'Do nutrition labels influence healthier food choices? Analysis of label viewing behaviour and subsequent food purchases in a labelling intervention trial'. *Appetite*, 121: p360-365.

²³⁷ Van der Merwe, D., et al, 2013. 'Consumers' knowledge of food label information: an exploratory investigation in Potchefstroom, South Africa'. *Public Health Nutrition*, 16(3): p403-408.

Conversely, other current evidence suggests that education alone does not increase healthy food choices^{238,239}. Even dietary counselling has only modest effects on diet^{240,241,242}.

Option 3 - Change to statement of ingredients to overtly identify sugars-based ingredients

Feedback on this option

Food industry

The majority of food industry submissions (26) did not consider that this option would be effective in addressing the policy issue and achieving the desired outcome or did not support this policy option, four (4) considered it would be effective in combination with another option (option 7 from one submitter, education from the others) and one considered it would be partially effective. Popular reasoning for limited support included a potential imbalanced focus on sugars, concerns with interactions with allergen labelling and a lack of quantification of added sugars in a product.

Public health

The majority of public health and research/academic submissions considered this option would be either effective in combination with another option (mostly with additional labelling and some submissions also supported it in combination with education) or partially effective in addressing the policy issue and achieving the desired outcome. Some submissions supported this option on the proviso that brackets were used to identify added sugars rather than emboldening or an asterisk, as that could cause confusion with allergen labelling or claims.

Combining this option with option 4 was suggested by a number of public health submissions. These submissions noted this option would allow identification of added sugars and the relative contribution of added sugars to a food. Some noted that this option has been implemented in Canada and is therefore a practical option (however, conversely some industry submitters stated that this has not been implemented in Canada yet and therefore cannot be relied upon as an example).

Three (3) submissions from these sectors considered option 3 would not be effective. One submission said this was because it would require motivation and understanding by the consumer, and the other two because it would not necessarily be understood by consumers who do not understand that ingredients are listed in descending order.

Government

Three government submissions considered this option would be effective in addressing the policy issue and achieving the desired outcome. One (1) of these government submissions

²³⁸ Mhurchu, C. N., et al, 2010. 'Effects of price discounts and tailored nutrition education on supermarket purchases: a randomized controlled trial'. *The American Journal of Clinical Nutrition*, 91(3): p736–747.

²³⁹ Ball, K., et al, 2015. 'Influence of price discounts and skill-building strategies on purchase and consumption of healthy food and beverages: outcomes of the Supermarket Healthy Eating for Life randomized controlled trial'. *The American Journal of Clinical Nutrition*, 101(5): p1055-1064.

²⁴⁰ Patnode, C.D., et al, 2017. 'Behavioral Counseling to Promote a Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults Without Known Cardiovascular Disease Risk Factors: Updated Systematic Review for the US Preventive Services Task Force'. *JAMA*, 318(2): p175-193.

²⁴¹ Mitchell, L.J., et al, 2017. 'Effectiveness of Dietetic Consultations in Primary Health Care: A Systematic Review of Randomized Controlled Trials'. *Journal of the Academy of Nutrition and Dietetics*, 117(12): p1941-1962.

²⁴² Moller, G., Andersen, H.K. & Snorgaard, O., 2017. 'A systematic review and meta-analysis of nutrition therapy compared with dietary advice in patients with type 2 diabetes'. *The American Journal of Clinical Nutrition*, 106(6): p1394-1400.

supported it in combination with option 4 and education. Two (2) submissions considered it wouldn't be effective. One (1) government submission considered it would be partially effective.

Others e.g. consumer advocates

Four (4) of these submissions considered this option would be effective in combination with another option in addressing the policy issue and achieving the desired outcome (one (1) with NIP improvements, two (2) with added sugar in the NIP and with highlighting the amount of added sugar in sugary drinks / sugar-sweetened beverages and confectionary through teaspoon labelling, and one (1) with education), the other submission considered it would be partially effective (noting that skills and knowledge would be required to read and clearly understand the information).

Consumers

Of the submissions from members of the public, there was a range of views about the effectiveness of this option.

Some submissions cited a 2017 nationally representative CHOICE survey which found that 68% of Australians are in favour of grouping added sugars in the ingredient list²⁴³. This survey was again noted by a number of submissions, who also noted that sugar-based ingredients would appear near the beginning of the statement of ingredients, and that currently identifying added sugars in the statement of ingredients is challenging. CHOICE reported that in 2018, when they sought the views of the general public on the proposed options in the CRIS 79% of people supported this option²⁴⁴.

Preferred implementation mechanism

The majority of total submissions considered option 3 should be implemented by a regulatory mechanism.

Concerns were raised from the public health sector that voluntary approaches may be applied inconsistently by the food industry, with just two (2) submissions preferring voluntary implementation. Examples of selective product labelling in voluntary labelling schemes were provided²⁴⁵. Consumer views reflected this position.

Submissions from the food industry were mixed in relation to a preferred implementation mechanism for this option. The majority of industry submitters considered it should be voluntary. However, the majority of these submitters did not agree with this option progressing at all.

A voluntary scheme was supported because it provided flexibility (easier to review and revise) and was considered to be easier for industry as they can choose whether to label or not (e.g. for imports and exports and for small businesses). A disadvantage identified by submitters (industry and public health) with respect to a voluntary scheme was that it may not be implemented by all companies, leading to a lack of standardisation in labelling and confusion for consumers.

²⁴³ CHOICE Australia, 2017. 'End the sugar-coating – A CHOICE report into added sugar labelling in Australia. Available [online](#) (accessed 21 February 2019).

²⁴⁴ CHOICE Australia, 2018. 'People's choice on sugar labelling'. Available at: [CHOICE website](#) (accessed 13 November 2018).

²⁴⁵ Jones, A., Shahid, M. & Neal, B.J., 2018. 'Uptake of Australia's Health Star Rating System'. *Nutrients*, 10(8): p997.

Evidence that self-regulation of advertising to children is not effective was provided by some public health submitters^{246,247,248,249,250,251,252,253}.

Option 4 – Added sugars quantified in the NIP

Feedback on this option

Food industry²⁵⁴

Most (16) industry submissions offered support for this option (particularly if it could be implemented on a voluntary basis). Some submitters commented they were already providing added sugars information in the NIP. Reasons for supporting this option were:

- it would quantify the amount of added sugar in a product in a format that consumers were familiar with and frequently used²⁵⁵;
- it would involve a minimal change to the existing food label (only one additional line in the NIP);
- it would enable consumers to make an informed choice;
- it would support industry transparency with consumers; and
- it would not over-emphasise added sugars on the food label because the added sugars would be placed on the NIP alongside other nutrients which should be limited such as sodium and saturated fat.

Industry submissions noted that implementation details such as definitions of added sugars and an approach for calculating a food's added sugars content would be required. Concern was raised about complexities involved in quantifying a food's added sugars content, noting the need for industry to rely on ingredient suppliers for accurate information.

Some industry submissions supported implementing this option in combination with another of the proposed options, with most indicating that the changes to the NIP should be supported by consumer education (option 2), and one proposing that the information in the NIP should be linked with further online information (option 7).

Five (5) food industry submissions did not support this option. Reasons for this position were that added and intrinsic sugars behave the same physiologically and chemically and there is no reason to separate these sugars in the NIP. These industry submitters also considered that

²⁴⁶ King, L., et al, 2011. 'Industry self regulation of television food advertising: Responsible or responsive?'. *International Journal of Pediatric Obesity*, 6(2-2): e390-98.

²⁴⁷ Hebden, L., et al, 2011. 'Advertising of fast food to children on Australian television: the impact of industry self-regulation'. *Medical Journal of Australia*, 195(1): p20-24.

²⁴⁸ Galbraith-Emami, S. & Lobstein, T., 2013. 'The impact of initiatives to limit the advertising of food and beverage products to children: a systematic review'. *Obesity Reviews*, 14(12): p960-974.

²⁴⁹ Australian Communications and Media Authority, 2011. '*Industry self-regulation of food and beverage advertising to children. ACMA monitoring report*'. Available at: [ACMA website](#) (accessed on 14 January 2019).

²⁵⁰ Watson, W.L., et al, 2017. 'Advertising to children initiatives have not reduced unhealthy food advertising on Australian television'. *Journal of Public Health*, 39(4): p787-92.

²⁵¹ Smithers, L.G., Lynch, J.W. & Merlin, T., 2014. 'Industry self-regulation and TV advertising of foods to Australian children'. *Journal of Paediatrics and Child Health*, 50(5): p386-92.

²⁵² Ronit, K. & Jensen, J.D, 2014. 'Obesity and industry self-regulation of food and beverage marketing: a literature review'. *European Journal of Clinical Nutrition*, 68(7): p753-759.

²⁵³ Reeve, B., 2016. 'Self-Regulation of Food Advertising to Children: An Effective Tool for Improving the Food Marketing Environment?' *Monash University Law Review*, 42(2): p419-457.

²⁵⁴ Some submissions provided a food industry and alcohol industry perspective and have been counted within both of these sectors. Some submissions did not answer all of the questions, which is why the number of responses may not be consistent with the number of submissions received.

²⁵⁵ Food Standards Australia New Zealand, 2015. '*Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand*'. Available at: [FSANZ website](#) (accessed 13 November 2018).

the current information about sugars on food labels is sufficient for consumers, and raised concerns about how they could implement this option due to technical issues.

Three (3) industry submissions noted that added sugars labelling was considered by CODEX in 2010 but not perused because:

- there were no analytical methods to differentiate between intrinsic and added sugars, which could create difficulties for enforcement, however added sugars could be addressed through other means than in a nutrient declaration;
- the human body did not differentiate between total sugars and added sugars; and
- the joint FAO/WHO Update on Carbohydrates²⁵⁶ recommended total sugars be used for the purposes of labelling.

The majority of submissions from the food industry were not supportive of the suggestions for additional contextual labelling in the NIP for sugars in the form of HIGH/MEDIUM/ LOW descriptors or %DI labelling. Industry considered that this would draw more attention to sugars over other nutrients to be limited, and may confuse or mislead consumers or undermine the HSR as foods that are low in added sugars may not be a healthy choice (i.e. because they are high in saturated fat or sodium). The HSR was seen to perform the role of interpreting the overall healthfulness of a product. Some industry submissions expressed concern about providing a quantified daily intake value for added sugars, noting that the dietary guidelines do not make a quantified recommendation, and the WHO guidelines for added sugars are expressed as the contribution of energy from added sugars, rather than a weighed (grams per person) basis. These submitters considered there was insufficient evidence available for %DI or HIGH/MEDIUM/LOW labelling for added sugars.

Public health

The majority (30) of submissions from this sector considered this option would be effective or partially effective in achieving the desired outcome. These submitters considered the option would be effective because it provided context to the sugars information in the NIP by clearly quantifying the amount of added sugars in the product. Submissions noted that the NIP is most commonly used by consumers²⁵⁷, and includes other key nutrients such as sodium and saturated fat which the dietary guidelines recommend should be limited. Public health submissions saw considerable value in separating added and total sugars in the NIP because added sugars specifically should be limited in the diet (rather than all sugars)²⁵⁸.

Those submitters that considered this option would be partially effective raised concerns that and numeracy skills are required for label reading a NIP and having nutrition knowledge increases the likelihood that a consumer will use a nutrition label²⁵⁹.

Eleven (11) public health submissions considered this option would be effective if combined with another option. The option(s) suggested to combine with added sugars in the NIP were varied with no clear preference.

Support was mixed for additional contextual labelling such as HIGH/MEDIUM/LOW or %DI for added sugars. Some public health submissions did not support this type of additional

²⁵⁶ Englyst, K.N., Liu, S. & Englyst, H.N., 2007. 'Nutritional characterization and measurement of dietary carbohydrates'. *European Journal of Clinical Nutrition*, 61: pS19-S39.

²⁵⁷ Food Standards Australia New Zealand, 2015. 'Consumer label survey 2015. Food labelling use and understanding in Australia and New Zealand'. Available at: [FSANZ website](https://www.foodstandards.gov.au/foodlabelling) (accessed 13 November 2018).

²⁵⁸ Mela, D.J., Woolner, E.M., 2018. 'Perspective: Total, Added, or Free? What Kind of Sugars Should We Be Talking About?' *Advances in Nutrition*, 9(2): p63–69.

²⁵⁹ Soederberg Miller, L. & Cassady, D., 2015. 'The effects of nutrition knowledge on food label use. A review of the literature'. *Appetite*, 92: p207-216.

contextual information as it may confuse consumers²⁶⁰ and contradict other elements of the food label. Some submissions supported this type of labelling if it could be applied to other information in the NIP such as saturated fat and sodium. Other submissions were supportive of the additional contextual information but considered that defining cut-offs for HIGH/MEDIUM/LOW messaging or a daily intake for added sugars would take time and should not delay the introduction of quantified added sugars information in the NIP. Other submissions were supportive of this type of labelling to aid consumer understanding and ability to interpret the label information^{261,262}.

Government²⁶³

The majority of Government (6) submissions considered this would be effective or partially effective in achieving the desired outcome. Reasons for this position were consistent with the public health sector.

This sector held views similar to the public health sector in relation to additional contextual information such as HIGH/MEDIUM/LOW or %DI for added sugars.

Others e.g. consumer advocates

Most (4) submissions considered this option would be effective or partially effective in achieving the desired outcome. One submission considered that the option would be effective if combined with option 3. Responses from this sector about this option were very similar to the Government and public health sector.

Consumers

Nineteen (19) members of the public considered this option could be effective in achieving the desired outcome. Comments from these submitters discussed access to additional information to make informed choices.

Most members of the public (33) considered this option would be partially effective in achieving the desired outcome. Comments from these submitters was that the NIP can be confusing and they wanted simplified information.

Six (6) members of the public considered this option would be effective if combined with another option, with suggestions that this option be combined with option 3, option 5 or option 6.

Nine (9) members of the public considered this option would not be effective in achieving the desired outcome. These consumers saw this option as too complicated and wanted simpler food labelling for sugars.

Some stakeholders undertook their own consultations on the policy options. CHOICE and Nutrition Australia both reported this option was strongly supported in their own consultations. CHOICE reported that 80% of respondents its consultation supported including added sugars in the NIP. Consumer NZ noted it had undertaken a consultation in 2016 where 68% of Australians and 71% of New Zealanders wanted added sugars included in the NIP.

²⁶⁰ Gorton, D., et al, 2009. 'Nutrition labels: a survey of use, understanding and preferences among ethnically diverse shoppers in New Zealand'. *Public Health Nutrition*, 12(9): p1359-65.

²⁶¹ Vanderlee, L., et al, 2015, 'The efficacy of sugar labelling formats: Implications for labeling policy'. *Obesity*, 23: p2406-2613.

²⁶² Khandpur, N., Graham, D. & Roberto, C., 2017. 'Simplifying mental math: Changing how added sugars are displayed on the nutrition facts label can improve consumer understanding', *Appetite*: 114: p38-46.

²⁶³ Government includes state and territory Governments in Australia, New Zealand Government Ministries and New Zealand local Government agencies.

Preferred implementation mechanism

A strong majority of submissions from the public health sector, researchers and academics, members of the public, Governments, others (e.g. consumer advocates) all supported of this option being implemented on a mandatory basis through the Code. Reasons for supporting a mandatory approach were:

- draws on existing regulatory systems (i.e. the Code and associated enforcement infrastructure);
- enables coverage of labelling across all product categories to enable product comparison;
- allows for effective compliance and enforcement;
- supports consumer trust; and
- creates a level playing field for industry.

Concerns were again raised that voluntary approaches may be applied inconsistently by industry and predominantly only to products that were low/lower in added sugars.

Submissions from the food industry were mixed in relation to a preferred implementation mechanism for this option. Eleven (11) responses from the food industry were supportive of a voluntary approach for implementing this option. Support for a voluntary approach was on the basis that it allows for industry flexibility, time to adopt new labelling, does not affect trade and can provide a market advantage for products that adopt the proposed labelling. Some industry responses argued that a voluntary approach was an appropriate proportionate response to the issue as they viewed added sugar information to be about allowing consumers to make informed choices, rather than about public health.

Of the industry submissions that favoured a voluntary approach, ten (10) supported a voluntary Government led code of practice similar to that used for the HSR as it provided flexibility while ensuring the proposed labelling was applied on a consistent and comparable basis. One (1) industry submission supported an industry-led voluntary initiative to provide industry flexibility and minimise costs.

Four (4) industry submissions were supportive of a regulatory approach on the basis that the NIP is already a mandatory element of the food label and therefore including added sugars in the NIP through a mandatory approach was logical and efficient. These submitters also cited consistent implementation, industry transparency with consumers, ability for consumers to compare products and a level-playing field for industry as reasons for supporting the regulatory approach.

Option 5 - Advisory labels for foods high in added sugars

Feedback on this option

Food industry

The food industry overwhelmingly did not support this option, with no submissions considering the option would be effective in achieving the desired outcome.

Fourteen (14) submissions highlighted concerns relating to the disproportionate focus of this option on added sugars relative to the available evidence. Other concerns mentioned included the potential negative impact on trade, and concerns that this option may replace the HSR, resulting in less consumer information.

Public health

Public health submissions had mixed views on the merit of this option. While most submissions acknowledged that this option would be partially effective (15) or effective in combination with other options (13), some submitters were concerned that this option focused too heavily on added sugars, which may result in consumption behaviours not aligned with the wider dietary guidelines. Although, some submissions noted that this option could be expanded to include saturated fat and sodium to reduce emphasis on added sugars and provide a whole-of-diet approach.

Those submissions that believed this option may be effective in combination with another option were varied in their suggested option to be combined with.

Government

Government submissions held some concerns regarding this option. The key concern was the potential for this option to undermine or compete with the HSR, which governments have invested significant time and financial resources. As with other stakeholder groups, there were considerable concerns about the overemphasis on added sugars relative to other risk nutrients, the growing competition for label space due to both regulatory and voluntary labelling initiatives and the quality of evidence to support this option.

Others e.g. consumer advocates

Consumer advocates supported this option and felt that it would be effective in helping consumers make healthier food choices consistent with the dietary guidelines. This includes helping consumers understand excess nutrient intake in packaged foods, improve their ability to identify a healthier choice, increase their intention to buy a healthier choice, or increase their intention to not buy an unhealthy option²⁶⁴.

Consumers

Individual members of the public also held mixed views of this option. The majority of individuals supported this option and believed that it would be effective either implemented on its own (58) or in combination with another option (7). The main reasoning for this position was that it would be simple and easy to understand. However some individuals were concerned that this option did not provide sufficient information and did not help to identify foods that are high in other risk nutrients.

The 2018 CHOICE survey reported that 73% of people surveyed for this consultation supported this option²⁶⁵.

Preferred implementation mechanism

Most food industry submissions noted that they did not support this option, and as such, did not specify a preferred implementation approach. Of those that did specify a preferred mechanism, five (5) industry submissions supported a voluntary approach.

The majority of submissions from public health, research, government and members of the public indicated that a regulatory approach would be the preferred implementation mechanism.

²⁶⁴ Khandpur. N., et al. 'Are Front-of-Package Warning Labels More Effective at Communicating Nutrition Information than Traffic-Light Labels? A Randomized Controlled Experiment in a Brazilian Sample'. *Nutrients*, 10(6): p68.

²⁶⁵ CHOICE Australia, 2018. 'People's choice on sugar labelling'. Available at: [CHOICE website](#) (accessed 13 November 2018).

Submissions noted that a regulatory approach would be required to ensure sufficient coverage, given the undesirable nature of this option for food companies. It was also noted that voluntary mechanisms may struggle to achieve sufficient coverage, as demonstrated by the current uptake level of the HSR²⁶⁶. A regulatory approach would also be more likely to support consistent application of the advisory label, which may support greater consumer understanding²⁶⁷. Government endorsement under a regulatory approach may also support consumer trust in the system. This was further supported by comments from members of the public.

Impacts of this option

Impacts on the food industry

Two thirds (18) of food industry submissions stated that they would be significantly impacted by this option. Industry noted that cost impacts to industry included not only those associated with new packaging, but also for existing packaging write off and labour costs.

Food industry submissions also noted that this option would have significant trade impacts. Few cost estimates for this option were provided by food industry. However, when provided, these estimates were consistent with feedback provided regarding label changes in option 3.

Impacts on public health

Public health submissions, particularly those that provide health and nutritional advice to consumers, noted that due to the significant attention of this option on sugar, that additional education may be required by health professionals to ensure there is not a distorted understanding of sugars in the diet. Education may also be required to ensure that consumers are aware of the importance to also reduce consumption of other risk nutrients such as saturated fat and sodium.

Impacts on government

Government submissions commented that additional resources would be required to support compliance and enforcement of this option. Additionally, one government submission stated that some resources would also be required to support consumer understanding of a new label element, such as advisory labels.

Impacts on consumers

Members of the public held mixed views on how this option would impact their ability to make informed food choices. Several individuals commented that this option would be easy to identify and simple to understand. However, other members of the public considered that this option would not provide sufficient information, and that there was limited ability to compare between products.

Public health and researcher submissions noted that this option was clear, did not require interpretation and would likely have the impact of being readily understood and time saving for consumers. It was also noted by several submissions that due to the simple and interpretive nature of this option, the impact would likely be more equitable and better understood by a wider proportion of the population including children and disadvantaged individuals with lower literacy and numeracy.

²⁶⁶ Jones, A., Shahid, M., & Neal, B.J., 2018. 'Uptake of Australia's Health Star Rating System'. *Nutrients*, 10(8): p997

²⁶⁷ Roberto, C.A. & Khandpur, N., 2014. 'Improving the design of nutrition labels to promote healthier food choices and reasonable portion sizes'. *International Journal of Obesity*, 38(S1): pS25.

Several studies^{268,269,270,271,272,273,274} were cited, which demonstrated advisory or warning labels, particularly those with a graphic element, were effective in informing about the health risks associated with excess sugar consumption and in influencing healthier food choices.

Some food industry submissions noted that evidence for the impact of advisory labels on consumer behaviour is limited to sugary beverages / sugar-sweetened beverage consumption, and that the impact on other foods is unknown. Some submissions noted that while advisory labels on food products had been introduced in several countries, an evaluation of the impact of any of these initiatives had not been completed.

Both food industry and government submissions noted that advisory labels for added sugars (which are related to long-term negative health outcomes), may impact consumers' perception of the importance of other advisory labels related to more acute threats, such as allergens. Submissions raised concerns that consumers may ignore or place less importance on existing acute risk advisory statements due to the association with less immediate threats.

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

Feedback on this option

Food industry

The food industry were the least favourable towards this option, with no industry submissions saying it would be effective, and seventeen (17) saying it would be not effective.

Issues raised by food industry submissions were:

- the potential confusion another labelling element could cause, especially when combined with the HSR;
- the lack of space for a new label;
- no agreed daily intake reference amount for added sugars;
- the lower level of accuracy of teaspoons compared to grams;
- the focus on added sugars may negatively impact on the whole-of-diet approach; and
- the lack of evidence on effectiveness other than for sugary beverages / sugar-sweetened beverages.

Public health

Public health submissions were mixed in their support for this option, with the major positives being that it was easier to understand than other labelling options, and was potentially more effective at reaching those with lower numeracy and literacy. Twenty-two (22) respondents

²⁶⁸ Rosenblatt, D., et al, 2018. 'Food product health warnings promote dietary self-control through reductions in neural signals indexing food cue reactivity'. *Neuroimage Clinical*, 18:p.702-712.

²⁶⁹ Rosenblatt, D., et al, 2018. 'Health warnings promote healthier dietary decision making: Effects of positive versus negative message framing and graphic versus text-based warnings'. *Appetite*. 127: p.280-288.

²⁷⁰ Billich, N., et al, 2018. 'The effect of sugar-sweetened beverage front-of-pack labels on drink selection, health knowledge and awareness: An online randomised controlled trial'. *Appetite*. 128: p.233-241.

²⁷¹ Donnelley, G., et al, 2018. 'The effect of graphic warnings on sugary drink purchasing'. *Psychological Science*, 29(8): p.1321-1333.

²⁷² Roberto, C.A., et al, 2016. 'The influence of sugar-sweetened beverage health warning labels on parents' choices'. *Paediatrics*, 137(2); e20153185.

²⁷³ Van Epps, E.M. & Roberto, C.A, 2016. 'The influence of sugar-sweetened beverage warnings: a randomized trial of adolescents' choices and beliefs'. *American Journal of Preventive Medicine*, 51: p.664-72.

²⁷⁴ Donnelly, G.E, et al, 2018. 'The effect of graphic warnings on sugary drink purchasing'. *Psychological Science*, 29(8); p.1321-33.

felt that this option would be effective or partially effective, and another fifteen (15) felt it would be effective in combination with another option.

Disadvantages of this approach, as seen by some public health submissions, were that it could result in multiple icons on the packaging that could create confusion, as well as concerns around overemphasising one negative nutrient.

Several public health submissions indicated a preference for teaspoon labelling rather than sugar cubes or pie charts. The reasons for this include teaspoons are a more common measurement and instrument, which the general public is familiar with. Sugar cubes are less common, and the general public is less likely to have an instinctive concept of how much sugar that is. Pie charts require numerical skills to interpret, and lack the relatability of teaspoon labelling.

Government

Of the seven (7) government submissions, only one (1) felt this option would be effective, three (3) felt it would be partially effective, and three (3) explicitly did not support this option.

The most significant theme in concerns for this option from government, was that it could conflict with the HSR, creating confusion or resulting in the HSR being pushed from the label. Submissions showed a clear preference for the HSR, due to it enabling a more whole-of-diet approach.

A common positive theme in submissions from government was that pictorial labelling of added sugar was easy to understand.

Others- consumer advocates

All consumer advocates believed this option would be effective (1) or effective in combination with another option (3). Overall, these submissions felt that this option would provide additional contextual information to allow at a glance judgement of whether a product is high in added sugars.

Consumers

Individual members of the public were mostly positive about this option. Many (51) indicated that this option would be effective in achieving the desired outcome and a further seven (7) felt it would be partially effective. Comments from these submissions raised that this option was quicker and easier to understand, particularly for children and those with lower literacy and numeracy skills.

Many submissions cited the 2018 CHOICE survey, which showed 75% of surveyed consumers supported providing images of teaspoons of sugar reflecting amount of added sugars within products²⁷⁵. A few consumers (3) felt that this option would not be effective. These submissions commented that they felt it took too much room on the label, or was 'condescending'.

Preferred implementation mechanism

A strong majority (93) of submissions coming from the public health sector, researchers, members of the public, and governments preferred this option being implemented on a mandatory basis. Reasons for supporting a mandatory approach were consistent with

²⁷⁵ CHOICE Australia, 2018. 'People's choice on sugar labelling'. Available at: [CHOICE website](#) (accessed 13 November 2018).

reasoning in other options. Likewise concerns with a voluntary approach was consistent with reasoning in other options.

In contrast, submissions from the food industry generally preferred voluntary implementation with fourteen (14) respondents preferring a voluntary implementation. This is indicative of the general lack of support this option has from industry, with many respondent's comments generally stating they would prefer this option was not implemented at all.

A voluntary government-led code of practice similar to that used for the HSR was supported by some industry submissions, as it provided flexibility while ensuring the proposed labelling was applied on a consistent and comparable basis. One industry submission supported an industry-led voluntary initiative to provide industry flexibility and minimise costs.

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

Submissions took a range of interpretations on what the option may ultimately look like when implemented. Submitters responded as though the digital link was in the form of a barcode, a QR code, or a website address (with or without a line of text such as 'scan here for more information') and that the 'landing page' was either a food company website, a government website or a third party independent app such as the George Institute's FoodSwitch. This interpretation had an impact on how the consultation questions were answered. Because of this variation the responses regarding option 7 should be interpreted with caution.

Feedback on this option

Food industry

This stakeholder group was most likely to support digital linking to be either effective or partially effective in achieving the desired outcome. Responses frequently emphasised that digital linking could provide more information in context and more than could fit on a food label. One major food industry stakeholder provided evidence for consumer preference to use digital means (websites) as a first point of contact to find additional nutrition information over telephone contact.

Public health

Most of this group did not support this option, stating that it does not address the policy problem at the point of sale for all consumers. A number of submissions mention that digital based solutions were considered for Country of Origin Labelling (CoOL)²⁷⁶ work in 2016.

Government

Government stakeholders considered digital linking to be not effective or partially effective in achieving the desired outcome. Commonly cited issues were technological barriers, unequal access and that it was unlikely to be used by consumers due to their lack of time and motivation.

Others- consumer advocates

As with other stakeholder groups, consumer advocates were not supportive of this option as a standalone action. Some support was given to this option being a 'bonus' only if implemented with other label changes. Reasoning behind these views were very similar to public health and government submissions.

²⁷⁶ Australian Government, 2016. 'Federal Register of Legislation: Competition and Consumer Amendment (Country of Origin) Bill 2016'. Available at [Australian Government website](https://www.legislation.gov.au/idx/doc/other/2016/01/01/2016-0001) (Accessed 14 December 2018).

Consumers

Most consumers did not support this option and thought it would be not effective or only partially effective. Ten (10) respondents suggested that it may be effective in combination with option 6.

Opposition to digital linking was mostly based on time required to access a website to find the required information, the motivation required and unequal access for the community. Some submissions raised concerns that webpages would include marketing information and that personal data would be collected by food businesses in the process of scanning/linking and this may be used for direct marketing purposes (cookies and consumer profiling)²⁷⁷.

Preferred implementation mechanism

Respondents predominantly supported this option being implemented on a voluntary basis. However, most respondents did not provide any evidence or justification for this view. In Citizen Space, a response to the question about the preferred implementation option was mandatory, and it is thought that stakeholders may have selected an implementation mechanism at random in order to progress in the consultation questionnaire.

Impacts of this option

Impacts on the food industry

Overall, industry submissions felt that this option would impact them 'somewhat' or 'a lot'. A major impact included the labour costs required to gather, calculate and confirm data, then maintain the website. Some smaller businesses felt their IT systems were not equipped to disseminate this level of information and would require significant investment to do so. Furthermore, packaging may need to provide alternative ways to access information for those who do not have access to a smartphone or the internet such as a telephone number, text messaging service or website address (taking up further label real estate).

The ability to easily modify information for any future changes in requirements, guidelines, evidence and reformulation was considered an advantage of this option.

Impacts on public health

The majority of this groups' submissions (29) felt that they would be impacted 'somewhat' or 'not at all' by this option as it did not address the policy objective.

Some submissions stated that this option would not support the collection of data to monitor added sugars in the food supply, as the information would not be available on the food label.

Impacts on government

The nature of off-label information could make it difficult for regulators to both keep up with changing information and to gather evidence of breaches. This would be the first significant regulation of digital information in relation to food products and therefore would require wider consideration of the policy issues related to digital information regulation.

Impacts on consumers

The majority of members of the public (48) felt that this option would not impact them at all. Of those that provided any evidence or justification, the majority indicated there would be no or limited impact of adopting digital linking, explaining that they were unlikely to use this technology.

²⁷⁷ Geer. D., 2013. 'The dangers of QR codes for security'. Available at: [CSO online website](#) (accessed 23 August 2018).

It was considered that consumers may also not be able to directly compare products at the point of purchase, use or consumption, due to the need to access multiple websites.

Many consumers, public health, government and research/academic referenced issues of unequal access²⁷⁸ and use of digital linking and the potential for it to contribute to health inequalities. This was also occasionally mentioned by industry representatives but not as frequently.

Technological barriers were considered a major impact of this option and consumer confusion was a concern for many submissions. Submissions also considered the potential for consumer confusion as to the purpose and use of a QR code, with some considering this would be considered a marketing tool, rather than for informational purposes.

²⁷⁸ Barraket, J., et al, 2018. *'Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2018'*, RMIT University, Melbourne, for Telstra. Available at [Digital Inclusion Index](#) (accessed 25 February 2019).