BENCHMARKING NEW ZEALAND FOOD ENVIRONMENT POLICIES AGAINST INTERNATIONAL BEST PRACTICE

Evidence summary for Expert Panel

Food-EPI

2015-2017

The International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS)
The University of Auckland
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INFORMAS
Benchmarking food environments

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Introduction

New Zealand has an unacceptably high prevalence of overweight and obesity. Two in three adults and one in three children are overweight or obese. Diet-related non-communicable diseases (NCDs), such as diabetes, cardiovascular diseases and cancer, are the biggest cause of death and ill-health in New Zealand and they are preventable.

Effective government policies are essential to increase the healthiness of food environments[1] and to reduce these very high levels of obesity, NCDs, and their related inequalities. It is critical that the New Zealand Government implements preventive policies and actions to match the magnitude of the burden that unhealthy diets are creating in New Zealand. Monitoring the level of implementation of the policies and actions recommended by the World Health Organisation (WHO) is an important part of ensuring progress towards better nutritional health for New Zealanders.

The Healthy Food Environment Policy Index (Food-EPI)

The Food-EPI has been developed by the International Network for Food and Obesity/NCDs Research Monitoring and Action Support (INFORMAS) to assess the level of implementation of priority government policies and actions to improve the healthiness of food environments against international best practice (Figure 1).

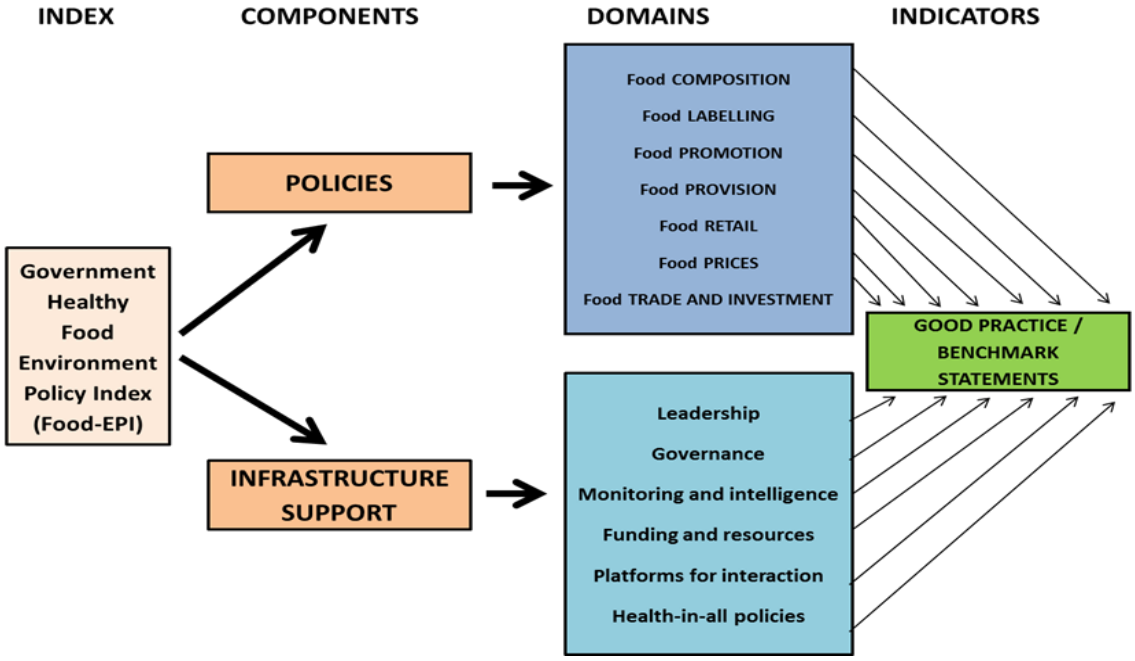

Figure 1: Components and domains of the Healthy Food Environment Policy Index (Food-EPI)

The index consists of two components (Policies and Infrastructure Support), 13 domains and 47 good practice indicators. The current expert panel aims to rate the level of implementation of policies on food environments by the Government against international best practice.

[1] Food environments are defined as the collective physical, economic, policy and socio-cultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status. Unhealthy food environments lead to unhealthy diets and excess energy intake which have consequences in levels of morbidity and mortality. Dietary risk factors (high salt intake, high saturated fat intake and low fruit and vegetable intake) and excess energy intake (high body mass index) account for 11.4% of health losses in New Zealand.

The New Zealand Food-EPI 2014

More than 50 experts participated in the first Food-EPI in May 2014. It was found that the New Zealand Government was performing well, at the level of international best practice, in regards to preventing unhealthy foods carrying health claims, providing ingredient lists and nutrition information panels on packaged foods, transparency in policy development processes, providing access to information for the public and monitoring prevalence of NCDs and their risk factors. However, major 'implementation gaps' were identified with the level of implementation of about three quarters (74%) of the policy indicators and half (48%) of the infrastructure support indicators rated as 'low' or 'very little, if any' compared to international best practice. There was no comprehensive obesity/NCD action plan and restrictions on unhealthy food marketing to children, fiscal policies, food retail policies and protection of food environments from trade and investment agreements were virtually non-existent. The ratings were informed by extensive documented evidence of current implementation of policies by the Government, validated by government officials, and international best practice examples or benchmarks for each of the indicators. In 2014, based on the implementation gaps identified, the Expert Panel recommended 34 concrete actions to improve the healthiness of food environments, prioritising 7 for immediate action:

1. Implement a comprehensive national action plan for obesity and NCD prevention.
2. Set priorities in Statements of Intent and set targets for:
    a. reducing childhood & adolescent obesity
    b. reducing salt, sugar & saturated fat intake
    c. food composition (salt & saturated fat) in key food groups.
3. Increase funding for population nutrition promotion, doubling it to at least $70m/year.
4. Reduce the promotion of unhealthy foods to children and adolescents by:
    a. restricting the marketing of unhealthy foods to children & adolescents through broadcast and non-broadcast media
    b. ensuring that schools and ECE services are free of commercial promotion of unhealthy foods.
5. Ensure that food provided in or sold by schools and ECE services meets dietary guidelines.
6. Implement the front-of-pack Health Star Rating labelling system.
7. Introduce an excise tax of at least 20% on sugar-sweetened beverages.

Instructions for rating

You are invited to participate in the 2017 Food-EPI expert panel. This will involve rating the **current** level of implementation of each of the 47 good practice indicators by the New Zealand Government, **against international best practice,** on a Likert scale from 1 to 5 using an online questionnaire.
The meaning of the Likert scale is:

1: *<20% implemented compared to international best practice*
2: *20-40% implemented compared to international best practice*
3: *40-60% implemented compared to international best practice*
4: *60-80% implemented compared to international best practice*
5: *80-100% implemented compared to international best practice*

There is also a 'cannot rate' option, but please only use this if really needed and provide comments in the comment box on why you cannot rate for a particular good practice indicator.

The **ratings** require expert judgement, taking **multiple considerations** into account:

1. **Quality** of government policies/actions compared to international best practice.
2. **Extent of implementation** of government policies/actions considering all aspects of the 'policy cycle':
   - Agenda setting and initiation
   - Policy development
   - Implementation
   - Evaluation

The ratings thus need to take into account the intentions and plans of the Government, Government funding for implementation of actions undertaken by NGOs and establishment of working or advisory groups, etc., in addition to the policies and actions that have been implemented.

This booklet gives you the full details of the current evidence of implementation by the New Zealand Government for each good practice indicator and includes international best practice examples (benchmarks) for each good practice indicator to **support you** in the rating process and give you confidence to make those judgements. Summaries of the evidence and the benchmarks are also available within the online questionnaire used for the rating process. You will receive a separate invitation email with a link to this questionnaire. **It is important to read the evidence of implementation and international benchmarks before putting in your rating for each good practice indicator.**

We anticipate the rating process will take **more than an hour of your time** to complete and it will be possible to save your ratings online and come back to where you left off at a later stage.

We will organize a couple of online ZOOM meetings so that you can ask us questions about the process if needed. This is not obligatory. Details of those meetings will be included in the invitation email.

Some important **points of attention** to keep in mind during the rating process are the following:

- Please note that the Government's level of implementation is **evaluated against international best practice** and not against any theoretical or ideal standards. In some cases, the benchmarks only cover certain aspects of the good practice indicator since no country globally is currently covering all aspects. For a few indicators (e.g. Funding) the actual benchmarks are unknown. In this case, the benchmarks are examples only and it is mentioned in the online summaries. There are a few good practice indicators for which New Zealand is listed as a benchmark.
- In the online rating tool, we provide a summary of the evidence of implementation and benchmarks for each indicator. We also highlight if there is new evidence of implementation since 2014 and if the benchmark has substantially improved since 2014. The median rating as per the results of the Food-EPI 2014 is also included. **This information is given to support you to rate, but does not suggest which rating you need to choose**. It is important to keep in mind that the categories for rating are fairly broad (0-20%, 20-40%, 40-60%, 60-80% and 80-100%). Therefore, it is not necessarily always the case that a higher rating should be given if there is new evidence of implementation in New Zealand, while the benchmark has not improved compared to 2014. Nor should a lower rating necessarily be given if there is no new evidence of implementation, but the benchmark has substantially improved compared to 2014. This is left up to your judgement, taking all elements into account.
- Any **comments** that you have during this exercise (including on the evidence of implementation presented in this document) are very important for us, so feel free to use the online comment boxes extensively in the rating process.

An example with explanations for the first good practice indicator (COMP1) as visible in the online rating questionnaire is included on the next page.

COMP1 *Food composition targets/standards have been established by the government for the content of the nutrients of concern in certain foods or food groups if they are major contributors to population intakes of these nutrients of concern (trans fats and added sugars in processed foods, salt in bread, saturated fat in commercial frying fats).*	***This is the definition of the good practice indicator for which you will rate the extent of implementation by the NZ Government against international best practice***
EVIDENCE OF IMPLEMENTATION BY THE NZ GOVERNMENT 2017: • No composition targets specified by MoH or MPI for nutrients of concern (sodium, saturated fat, trans fat, added sugar). • National Heart Foundation programme (HeartSafe) under contract from MoH: best practice guidelines & industry commitments for sodium and saturated fat. **Recently the first sugar reduction targets were set for breakfast cereals, tomato sauce, canned baked beans and canned spaghetti. In total sodium, saturated fat and sugar targets have been set for 13 food categories.** • **Under the Healthy Kids Food Industry Pledge, stimulated by MOH, the retailers (Foodstuffs and Countdown) pledge to reformulate their private label products by end of December 2018.** • FSANZ leads work on status of trans fats in NZ and decided previously based on surveys in 2007 & 2009 that regulatory intervention is not required and that the non-regulatory approach is sufficient to further reduce levels.	***This is a summary of the current evidence of implementation by the NZ Government for the COMP1 good practice indicator. New evidence of implementation compared to 2014 is highlighted. The detailed version of the evidence can be found in this printed booklet.***
INTERNATIONAL BEST PRACTICE EXAMPLES (BENCHMARKS) 2017: • *Argentina/South Africa*: Recent laws on max levels of sodium in range of food categories. • *Denmark*: A law prohibits the sale of products containing *trans* fats since 2003. • *Europe/UK*: The addition of sugar is no longer authorised in fruit juice. • *France*: Under a Charter of Engagement with the food industry (2008), companies can make voluntary commitments to reduce salt, sugar, total and saturated fats and increase fibre.	***These are the international best practice examples or benchmarks (e.g. countries doing particularly well) for the COMP1 good practice indicator against which you will rate the extent of implementation by the New Zealand Government for COMP1. The detailed version of the benchmarks can be found in this printed booklet.***
SUMMARY **The median rating** by experts for COMP1 was **3** in 2014. There is **new evidence of implementation** by the New Zealand Government since 2014. The benchmark has not substantially improved since 2014.	***This is a summary including the median rating as per the Food-EPI 2014. It also mentions whether or not there is new evidence of implementation and whether or not the international benchmarks have improved since the Food-EPI 2014.***
Please enter your rating on the degree of policy implementation towards international best practice: 1. < 20% implemented 2. 20-40% implemented 3. 40-60% implemented 4. 60-80% implemented 5. 80-100% implemented 6. cannot rate	
COMMENTS	

Definitions

Benchmark: A best practice exemplar or a standard or point of reference, against which aspects of food environments or policies can be assessed and compared.

Civil society: The aggregate of non-governmental organisations, institutions and individuals that manifest interests and will of citizens (academia, professional organisations, public-interest NGOs and citizens).

Diet-related non-communicable diseases (NCDs): Type 2 diabetes, cardiovascular diseases and nutrition-related cancers, excluding: micronutrient deficiencies, undernutrition, stunting, osteoporosis, mental health and gastrointestinal diseases.

Food environments: The collective physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status.

Government: National and local government, including Councils, District Health Boards and Public Health Units.

Government-funded settings: Government departments and agencies, publicly funded schools, publicly funded early childhood education services, elderly homes, hospitals and prisons.

Government implementation: Refers to the intentions and plans of the government, government funding for implementation of actions undertaken by non-governmental organisations, and actions and policies implemented by the government.

Healthy foods: Foods recommended in national food-based dietary guidelines, dietary guidelines or food-based standards.

Healthy food environments: Environments in which the foods, beverages and meals that contribute to a population diet, meeting national dietary guidelines, are widely available, affordably priced and widely promoted.

Nutrients of concern: Salt, fat, saturated fat, *trans* fat, added sugar.

Platforms: Formal government mechanisms (e.g. standing committees, ad hoc committees, advisory groups, taskforces, boards, joint appointments) for interaction on particular issues.

Population nutrition promotion: Population promotion of healthy eating and healthy food environments for the prevention of obesity and diet-related NCDs, excluding all one-on-one promotion (primary care, antenatal services, maternal and child nursing services etc.), food safety, micronutrient deficiencies (e.g. folate fortification) and undernutrition.

Unhealthy foods: Processed foods or non-alcoholic beverages high in saturated fats, *trans* fats, added sugars and/or salt.

Important information

If 'foods' are mentioned, it means 'foods and non-alcoholic beverages'. Alcohol and breastfeeding/infant formulae are excluded from the Food-EPI framework.

The time frame is the last three years (election cycle), although the monitoring domain needs to take a longer view (5 years).

Abbreviations

ANA: Activity and Nutrition Aotearoa; ARPHS: Auckland Regional Public Health Service: ASA: Advertising Standards Authority; B4SC: Before School Checks; DHB: District Health Board; ECE: Early Childhood Education; ERO: Education Review Office; FRSC: Food Regulation Standing Committee; FSANZ: Food Standards Australia New Zealand; GST: Goods and Services Tax; HEHA: Healthy Eating Healthy Action; HPA: Health Promotion Agency; HPS: Health Promoting Schools; HSR: Health Star Rating; INFORMAS: International Network for Food and Obesity/NCDs Research, Monitoring and Action Support; MBIE: Ministry of Business, Innovation and Employment; MoE: Ministry of Education; MoH: Ministry of Health; MPI: Ministry for Primary Industries; NAG: National Administration Guideline; NCDs: Non-communicable diseases; NZHS: New Zealand Health Survey; NHMRC: National Health and Medical Research Council; NGOs: Non-governmental organisations; NIP: Nutrition Information Panel; NPSC: Nutrient Profiling Scoring Criterion; NZFCD: New Zealand Food Composition Database; SNAP: Supplemental Nutrition Assistance Program; SSC: State Services Commission; TPK: Te Puni Kokiri; WIC: Special Supplemental Nutrition Program for Women, Infants, and Children; WHO: World Health Organisation; WTO: World Trade Organization

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Authors

This document was written by Sally Mackay, with input from Stefanie Vandevijvere, Christine Trudel and Boyd Swinburn.

EVIDENCE SUMMARY

Healthy Food Environment Policy Index: POLICY domains

1 FOOD COMPOSITION: There are government systems implemented to ensure that, where practicable, processed foods minimise the energy density and the nutrients of concern (salt, fat, saturated fat, *trans* fat, added sugar).

COMP1: Food composition targets/standards have been established for processed foods by the government for the content of the nutrients of concern in certain foods or food groups if they are major contributors to population intakes of these nutrients of concern (*trans* fats and added sugars in processed foods, salt in bread, saturated fat in commercial frying fats).

Evidence of implementation

- There are no food composition targets specified by the Ministry of Health (MoH) or the Ministry for Primary Industries (MPI) for the nutrients of concern.
- As part of the Healthy Kids Industry Pledge, companies have set reformulation targets. Nestlé products for children meet Nestlé Nutritional Foundation criteria. Nestlé pledged to reduce salt, sugar and saturated fat by 10% in products that do not meet the criteria, including 2 Minute Noodles [1]. Children's cereals were reformulated to reduce sugar to 9g or less per serving. Fonterra are moving everyday products for children towards minimum quantities of added sugars, refined carbohydrates, added fats and salt [2]. Retail NZ pledged, where possible, to reformulate private label products to improve nutritional value, and to support and encourage the reformulation of supplier products [3]. Countdown will undertake a nutritional review of all private label grocery products by December 2018 (over 1000 products) so that products are nutritionally on par, or better than, the category average for saturated fat, sugar and sodium [4]. Coca-Cola has pledged to reduce sugar in some products, increase the range of low kilojoule and no sugar varieties, and provide and promote smaller packs [5].
- Major contributions of sodium to the New Zealand diet between October 2011 and September 2012 - based predominantly on Nutritrack and Nielsen Homescan [6] were: packaged foods 51% (bread 13%, cheese 6%, butter and margarine 6%, milk 5%, bacon 4%, table sauces 4%), takeaway/restaurant foods 26%, and added salt 15%. Mean sodium contents of the packaged foods (mg/100g) were: bread 399-444, hard cheese 672, butter 500, margarine 393, milk 45, bacon 1099, and table sauces 1096. Key reductions suggested include a decrease of 21% in the sodium content of white bread, 27% for hard cheese, 42% for sausages and 54% for ready-to-eat breakfast cereals.

<u>Heart Foundation food reformulation programme</u>

- Since 2007, the Heart Foundation has implemented a food reformulation programme focused primarily on reducing sodium levels across packaged foods. A focus is lower cost and higher volume products that acknowledge technical constraints [7]. Consistency with Australian targets is considered. The programme is funded by the MoH. It involves establishing voluntary targets and timeframes in partnership with the food industry for specific food categories. The Heart Foundation approach is to position food reformulation where it can have the most benefit and impact, and compliment other population health actions. Targets focus on core food groups, rather than categories inconsistent with Heart Foundation food and nutrition messages (e.g. sugary drinks, biscuits), however the Heart Foundation are supportive of the actions of companies in these categories to improve products, e.g. reduce portion size (personal communication, Heart Foundation, 2017).
- Since 2013, new food categories have been added and the work programme expanded to include sugar reduction targets when scoping new categories and as existing categories are reviewed. The first sugar reduction targets were set for breakfast cereals, tomato sauce, canned baked beans and canned spaghetti, with targets for cereal bars currently being discussed with industry. While companies are open to the possibility of setting sugar reduction targets, this can be more challenging than sodium reduction due to the role of sugar in functionality and as a flavour carrier, and the expectation of consumers for sweetness in some products. Companies need to consider whether to reduce sweetness or use sugar substitutes. Targets were set for thirteen categories (see table

below).Sodium targets for bread and processed meat were re-set with reduced sodium targets to encourage further reformulation.

- The objective of the HeartSafe programme is to have at least 80% of the market shares (by sales volume) to meet the targets, which ensures high-volume foods in the categories are prioritised. Currently in the majority of key categories (e.g. bread, breakfast cereals, processed meats) this objective has been met and around 250 tonnes of salt have been removed from these foods. Agreement from the key manufacturers on targets helps create a level playing field that they can all work towards, thereby minimising risk for the companies. The reformulation work has been carried out in the absence of any consumer awareness campaign. The targets are also being used as guidelines for new product development. Progress is monitored 6 monthly and targets of around 5 years rather than 2 or 3 years allow industry to make gradual changes. The goal is 80% of market share for the category meeting the targets within the timeframe (sales volume) (personal communication, National Heart Foundation, 2017).

Table of Heart Foundation Reformulation Targets

Category	Nutrient Target	Timeframe	Progress
Bread Packaged loaf bread	**Sodium** 400mg/100g	Target reset December 2014; target review December 2017	In 2014 the previous target of 450mg was reviewed. At that time over 80% market shares (by sales volume) met the target. Many companies did large reductions of around 20% in 2007 and 2008 to meet the target 450mg. Since December 2014 with the new 400mg target, one company reduced sodium levels by an average of 12% across 31 products. Over 163 tonnes of salt per annum removed from this category (2007-2016).
Breakfast Cereal Puffed rice and corn flakes Oat based muesli, porridge Biscuits Other Ready-to Eat cereals All cereals	**Sodium** 500mg/100g 200mg/100g 300mg/100g 400mg/100g **Total Sugar** 22.5g/100g OR 20% reduction for products significantly over 25g/100g	Targets reset August 2016; target review August 2021 Target set August 2016; target review August 2021	In 2016 over 80% market share met the 2010 sodium targets. Over five years (2010-2016) there was around a 25% reduction of sodium in breakfast cereals largely due to large reductions in rice bubble, cornflake and other children's styled cereals. Heart Foundation research indicated that some children's cereals had on average a 33% reduction in sodium levels over 10 years (2003 – 2013) From 2010 – 2016 an estimated 27 tonnes of salt per annum removed across the category.
Processed Meats Sausages Bacon Ham	**Sodium** 650mg/100g 1090mg/100g 1090mg/100g	Targets reset December 2015; target review December 2020	At 2015 over 80% market share of sausages were <800mg/100g (2011 target). Over 1 year (2015-2016) two manufacturers reduced the average sodium levels by 12% across 30 products. This is equivalent to over 13 tonnes of salt per annum removed. Over 50 tonnes of salt per annum removed from this category (2011-2016)
Savoury Pies Mince/Steak Mince & cheese/steak & cheese	**Sodium** 400mg/100g **Saturated fat** 5g/100g **Sodium** 400mg/100g **Saturated fat** 7g/100g	Targets set 2012 Targets set 2012	Over 10 tonnes of salt per annum removed from this category since target set 2012.
Soups Wet soups Dry soups	**Sodium** 290mg/100g (average) 300mg/100g (maximum)	Targets set 2014; target review December 2016	In progress.
Cheese Cheddar and Cheddar-style Mozzarella cheese	**Sodium** 710mg/100g 550mg/100g	Targets set 2014	In progress.

Processed cheese	1270mg/100g OR 10-15% ↓ in products significantly above 1270mg/100g		
Potato, corn & extruded snacks Potato chips Salt and vinegar snacks Extruded snacks Corn (cereal based) snacks	**Sodium** 550mg/100g (average) 800mg/100g (maximum) 850mg/100g (average) 1100mg/100g (maximum) 950mg/100g (average) 1250mg/100g (maximum) 550mg/100g (average) 700mg/100g (maximum)	Targets set 2014; target review June 2017	In progress.
Cooking Sauces Pasta, Indian-style and other sauces which are a major characterising component of a meal Asian sauces	**Sodium** 15% reduction for those greater than 420mg/100g 15% reduction for those greater than 680mg/100g	Targets set 2014; target review July 2016	In progress.
Edible Oil Spreads Margarine/oil based spreads	**Sodium** 400mg/100g	Target set 2014; target review December 2016	In progress.
Savoury Crackers Plain crackers Flavoured crackers Rice crackers and corn crackers	**Sodium** 850mg/100g 1000mg/100g 850mg/100g OR 15% reduction for those significantly above targets	Targets set 2014; target review December 2015	Target under review. Feedback from companies indicates that targets are impacting on new product development and the profile of the category is quite different from when targets set in 2014. Estimated 30% sodium reduction in average sodium level of the plain rice cracker category (currently 35 products) and 14% reduction in average sodium level of the flavoured rice cracker category (currently 65 products) (2014-2016). Estimated 15 tonnes salt per annum removed from category (2014-2016).
Tomato Sauce	**Sodium** 680mg/100g OR 15% reduction for those significantly above target **Total Sugar** 23g/100g OR 15% reduction for those significantly above target	Targets set May 2016; target review May 2021	In progress.
Canned Baked Beans	**Sodium** 350mg sodium/100g **Total Sugar** 5g sugar/100g	Targets set May 2016; target review May 2021	In progress.
Canned Spaghetti	**Sodium** 350mg/100g **Total Sugar** 4.5g/100g	Targets set May 2016; target review May 2021	In progress.

FSANZ *trans* fats

- The current level of *trans* fatty acids (TFAs) in the diet is well below the at-risk level. At a meeting in 2015, ministers accepted the advice of FSANZ that, given the low level of TFAs in the foods sampled in Australia and New Zealand, mandatory labelling does not appear warranted [8]. The average total *trans* fat intakes from both ruminant and manufactured sources in New Zealand were below the WHO population goal of contributing less than 1% to total energy intake.

International best practice examples (benchmarks)

- **Argentina**: In December 2013, the Government adopted a law on mandatory maximum levels of sodium permitted in meat products and their derivatives, breads and farinaceous products, soups, seasoning mixes and tinned foods (Act 26905), which entered into force in December 2014. The law is applicable to salt levels in restaurant dishes. The law includes gradual reductions (between 5% and 18%). Infringements by producers and importers may be sanctioned, the most severe penalties being fines of up to one million pesos, in case of repeat infringements, up to ten million pesos and the closing of the business for up to five years [9, 10]. The text of the legislation and specific reduction targets can be found on the Ministry of Health of Argentina website [11]. The legislation is embedded into a wider initiative (Less Salt, More Life) which also includes the reduction of salt in processed foods through voluntary agreements with manufacturers, retailers and bakers, and public awareness of the health effects and the need to reduce discretional salt. To date about 60 companies representing 487 processed food products and more than 9000 bakeries have signed the voluntary agreement [10].
- **South-Africa**: In 2013, the South African Department of Health adopted mandatory targets for salt reduction in 13 food categories (including bread, breakfast cereals, margarines and fat spreads, savoury snacks, processed meats as well as raw-processed meat sausages, dry soup and gravy powders and stock cubes) by means of regulation (Foodstuffs, Cosmetics and Disinfectants Act). There is a stepped approach with food manufacturers given until June 2016 to meet one set of category-based targets and another three years until June 2019 to meet the next [10, 12]. The specific reduction targets for each of the food groups can be found in the Staatskoerant of 20 March 2013 [13].
- **Denmark**: A law introduced in 2003 prohibits the sale of products containing *trans*-fats, a move that effectively bans its use in products destined for sale on the Danish market [10, 14]. The law is enforced by local authorities under the supervision of the Danish Veterinary and Food Administration. Infringement of the law may incur a fine or imprisonment, and companies can be prosecuted according to the Danish Penal Code.
- **EU & UK**: In 2012, under the directive 2012/12/EU of The European Parliament and the Council, an amendment of Council Directive 2001/112/EC outlined that addition of sugars is no longer authorised in fruit juice [15]. Similarly, added sugar in fruit juice is no longer permitted under The Fruit Juices and Fruit Nectars Regulations 2013 [16].
- **France**: As part of the French National Nutrition and Health Programme (PNNS), the Ministry of Health established a Charter of Engagement with the food industry (2008). One area of action is improving the nutritional composition of food products by reducing the amount of salt, sugar, total and saturated fats and increasing the amount of fibre. Any entity with an economic interest in the food industry is eligible to submit nutritional commitments. Nine principles are detailed: compliance, honesty, efficiency, retroactivity, fairness, transparency, monitoring, updating, and confidentiality. Commitments must be clear, accurate, precise, dated, and controllable. To date, over 35 companies have made voluntary commitments, which are reviewed and approved by an external committee of 24 public sector experts to ensure they are 'significant'. There is a strict follow-up. The approved charters are signed by the food industry and monitored by the Food Quality Observatory (created in 2008) [10, 17].

1 FOOD COMPOSITION: There are government systems implemented to ensure that, where practicable, processed foods minimise the energy density and the nutrients of concern (salt, fat, saturated fat, *trans* fat, added sugar).

COMP2: Food composition targets/standards have been established for out-of-home meals in food service outlets by the government for the content of the nutrients of concern in certain foods or food groups if they are major contributors to population intakes of these nutrients of concern (*trans* fats, added sugars, salt and saturated fat).

Evidence of implementation

- There are no food composition targets specified by the MoH or the MPI for out-of-home meals for the nutrients of concern.

- The Chip Group initiative aims to improve the nutrient profile of food service deep-fried chips by reducing fat (total, saturated, *trans*) and salt [18]. It is funded by both food industry and the MoH, approximately 50% from industry and 50% from government (85 000 NZD per annum from MoH) (personal communication, The Chip Group, 2017). The Chip Group sets Industry Standards that are scientifically robust and achievable, including chip size, serving size, cooking time, basket drainage (shake, bang and hang), cooking oil temperature, salt addition, and oil type. The standards for a deep-frying oil are: maximum 28% saturated fat, maximum 3% linolenic acid and maximum 1% *trans* fat. The Chip Group oil logo, for use on approved oil packaging and point-of-sale, was developed in 2010. There are currently 11 registered approved oils – including blends and new variety oils - marketed by Bakels, Integro (division of Goodman Fielder), Cookright, Peerless and NZ Sugar/Wilmar. The Chip Group runs the Best Chip Shop Competition every second year to find the best providers of healthier chips. To be eligible for *Regional* and the *Grand National* awards the chips sampled must be 9% or less fat. All entrants whose fat percentage is 9% or less received *Highly Commended Chips* awards.

International best practice examples (benchmarks)

- **New Zealand**: In New Zealand, The Chip group, funded 50% by the MoH and 50% by industry, aims to improve the nutritional quality of deep-fried chips served by food service outlets by setting an industry standard for deep frying oils. The standard for deep frying oil is maximum 28% of saturated fat, maximum 3% linoleic acid and maximum 1% of *trans* fat. The Chip group oil logo for use on approved oil packaging was developed in 2010 [18].
- **New York**: In 2006, New York City's Health Code was amended to restrict the amount of *trans* fats allowed in food served by all food service establishments required to hold a license from the New York City Health Department, including restaurants, bakeries, cafeterias, caterers, mobile food vendors and concession stands. The maximum amount of *trans* fat allowed per serving is 0.5g. Violators are subject to fines of $200.00 to $2,000.00. A range of other US cities have since followed suit and banned restaurants from serving *trans* fats [19].
- **New York**: In 2009, New York City established voluntary salt guidelines for various restaurant and store-bought foods. In 2010, this city initiative evolved into the National Salt Reduction Initiative that encouraged nationwide partnerships among food manufacturers and restaurants involving more than 100 city and state health authorities to reduce excess sodium by 25% in packaged and restaurant foods. The goal is to reduce Americans' salt intake by 20% over five years. The National Salt Reduction Initiative has worked with the food industry to establish salt reduction targets for 62 packaged foods and 25 restaurant food categories for 2012 and 2014. The commitments and achievements of companies have been published online [20].
- **The Netherlands**: On January 2014, the Dutch Ministry of Health, Welfare and Sport signed an agreement with trade organisations representing food manufacturers, supermarkets, hotels, restaurants, caterers and the hospitality industry to lower the levels of salt, saturated fat and calories in food products. The agreement includes ambitions for the period up to 2020 and aims to increase the healthiness of the food supply [10, 21].

2 FOOD LABELLING: There is a regulatory system implemented by the government for consumer-oriented labelling on food packaging and menu boards in restaurants to enable consumers to easily make informed food choices and to prevent misleading claims.

LABEL1: Ingredient lists and nutrient declarations in line with Codex recommendations are present on the labels of all packaged foods.

Evidence of implementation

- New Zealand meets CODEX standards and regulation is in place to ensure compliance. The MPI manages New Zealand's participation in CODEX and sets strategic priorities which ensure that CODEX standards have the widest possible application.
- Labelling standards are included in the Australia New Zealand Food Standards Code [22, 23]. The MPI is responsible for implementation of the Food Standards Code, which has been in force since 2002. Labels must include the ingredient list. Ingredients must be declared in the statement of ingredients in descending order of ingoing weight.
- The general format for the nutritional information panel (NIP) is shown below and is required on most packaged food products.
- Where average quantities or minimum/maximum quantities are given, this must be indicated in the NIP (standard example shown in the figure below):

NUTRITION INFORMATION		
Servings per package: (insert number of servings) Serving size: g (or mL or other units as appropriate)		
	Quantity per Serving	Quantity per 100g (or 100mL)
Energy	kJ (Cal)	kJ (Cal)
Protein	g	g
Fat, total	g	g
- saturated	g	g
Carbohydrate	g	g
sugars	g	g
Sodium	mg (mmol)	mg (mmol)
(insert any other nutrient or biologically active substance to be declared)	g, mg, µg (or other units as appropriate)	g, mg, µg (or other units as appropriate)

- In 2009, the Council of Australian Governments (COAG) and the Australia and New Zealand Food Regulation Ministerial Council (Ministerial Council) agreed to undertake a review of food labelling law and policy. An expert panel, chaired by Dr Neal Blewett, AC, was appointed and the report Labelling Logic, was released in January 2011 [24]. The report contained 61 recommendations with some related to nutrition labelling:
  - Recommendation 1: Complete. In 2013 the Legislative and Governance Forum on Food Regulation (the Forum) agreed to the policy statement to clarify how public health and safety should be interpreted by FSANZ in developing, reviewing and varying food regulatory measures. The food regulatory system recognises public health as 'the organised response by society to protect and promote health, and to prevent illness, injury and disability [25].
  - Recommendation 2: Complete. The Overarching Strategic Statement for the Food Regulation System was updated in 2013 to reflect the role of the food labelling issues hierarchy [25].
  - Recommendation 5: Complete. That information on food labels be presented in a clear and comprehensible manner to enhance understanding across all levels of the population. The Forum agreed that a policy statement is not necessary as progress has been made on the presentation of food labels in relation to recommendations 43, 45 and 50 related to the Health Star Rating (HSR) [24]. In addition, the Food Standards Code outlines labelling standards in Part 1.2 – Labelling and Other Information Requirements.
  - Recommendation 12: '*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)'. A technical evaluation on added sugars and vegetable oils identified that labelling of sugars and fats/vegetable oils is a very complex issue and that there have been a number of developments in food labelling and dietary advice since the initial labelling review was undertaken. In 2016 a decision was made that Recommendation 12 will continue as two separate pieces of work. The Food Regulation Standing Committee (FRSC) will lead policy work with the intention of identifying next steps in relation to naming sources of fats and oils to support consumers to make informed choices consistent with dietary guidelines. FSANZ, in consultation with FRSC, will prepare a program of work to further investigate labelling approaches for providing information on sugars [26].

- Recommendation 13: '*That mandatory declaration of all trans fats above an agreed threshold be introduced in the NIP if manufactured trans fats have not been phased out of the food supply by January 2013'.* FSANZ completed an evaluation in 2014. The advice acknowledged that the industry had already achieved a significant reduction in TFAs in products and that the level of TFAs in the diet was well below the at-risk level. At a meeting in 2015 ministers accepted the advice of FSANZ that, given the low level of TFAs in the foods sampled in Australia and New Zealand, mandatory labelling does not appear warranted. The Code currently permits the voluntary declaration of TFAs content on labels and requires the declaration of TFAs when certain nutrition content and health claims are made. Current labelling requirements are to be maintained [8].
- Recommendation 14: '*That declaration of total and naturally occurring fibre content be considered as a mandatory requirement in the Nutrition Information Panel*'. FSANZ provided technical evaluation and advice (report March 2014). As separating naturally occurring fibre from total dietary fibre in NIP is too difficult and impractical to implement, there will be no changes to dietary fibre declarations in response to this recommendation [27].
- Recommendation 17: Complete. Technical advice was provided on removal of the mandatory requirement for the 'per serve' column in the NIP unless a daily intake claim is made. At a meeting in November 2015, ministers accepted the advice of FSANZ that no further work is required on the recommendation. The advice was based on broad stakeholder opposition (including from industry) to the proposed removal of the mandatory requirement for per serving information in the NIP, the lack of evidence of a problem with per serving information, and the lack of a benefit from the recommendation [28].
- Recommendation 26: '*That the energy content be displayed on the labels of all alcoholic beverages consistent with the requirements for other food products'.* FRSC is considering the policy work associated with the cost benefit analysis provided by FSANZ to provide advice to the Forum [29].
- Recommendation 6 & 47: Complete. (Food safety elements on food labels reviewed, warning and advisory statements and allergens emboldened in ingredients list and a separate list). At a meeting in November 2016, ministers agreed that in relation to allergen labelling, further work be undertaken by FSANZ through the Allergen Collaboration to promote the uptake of voluntary labelling initiatives and that a report be provided to ministers within 12 months. Ministers also acknowledged the work to date by industry [30].

International best practice examples (benchmarks)

- **Many countries**: In a wide range of countries, including New Zealand, producers and retailers are required by law to provide a comprehensive nutrient list on pre-packaged food products (with limited exceptions), even in the absence of a nutrition or health claim. The rules define which nutrients must be listed and on what basis (e.g. per 100g or per serving) [31].
- **Some countries**: A more limited number of countries (about n=10), excluding New Zealand, require that nutrient lists on pre-packaged food must, by law, include the *trans* fat content of the food. Specific rules generally define how the *trans*-fat content must be listed, and on what basis (e.g. per 100g/100ml or per serving). If the *trans* fat content falls below a certain threshold, it may be listed as 0g (e.g. less than 0.5g per serving, or less than 0.3g per 100g of food product) [31].
- **US**: The US Food and Drug Administration proposed updates to the Nutrition Facts label on food packages. Information on the amount of added sugars (in grams and as % Daily Value) now needs to be included on the label, just below the line for total sugars [32].

2 FOOD LABELLING: There is a regulatory system implemented by the government for consumer-oriented labelling on food packaging and menu boards in restaurants to enable consumers to easily make informed food choices and to prevent misleading claims.

LABEL2: Robust, evidence-based regulatory systems are in place for approving/reviewing claims on foods, so that consumers are protected against unsubstantiated and misleading nutrition and health claims.

Evidence of implementation

- Food Standard 1.2.7 Nutrition Health and Related Claims. This standard regulates nutrition content claims and health claims on food labels and in advertisements. It became law on 18 January 2013. Food businesses had to comply with the new standard (Standard 1.2.7) from 18 January 2016 [33] and with requirements for nutrition content claims about dietary fibre from January 2017. Food businesses wanting to make general level health claims can base their claims on one of the more than 200 pre-approved food-health relationships in the Standard or self-substantiate a food-health relationship in accordance with detailed requirements set out in the Standard. The Standard sets out the claims that can be made on labels or in advertisements about the nutritional content of food (including nutrient comparative claims) or the relationship between a food or property of a food (such as a vitamin or mineral), and a health effect (general or high level health claims). The Standard establishes the conditions under which claims can be made. It provides exemptions for the use of 'endorsements' on labels or in advertisements, if the endorsement and the endorsing body meet certain requirements set out in the Standard. The requirements for nutrition content and health claims apply to the form of the food as prepared if the food is required to be prepared and consumed according to directions. Claims cannot refer to the prevention, diagnosis, cure or alleviation of a disease, disorder or condition; or compare a food with a good that is represented in any way to be for therapeutic use (personal communication, FSANZ, 2017).
- With respect to self-substantiating, a food-health relationship for the purposes of making a general level health claim, Standard 1.2.7 requires a person to notify FSANZ of a relationship between a food or property of food and a health effect (food-health relationship) which has been established by a process of systematic review before making a general level health claim. High level health claims (referring to a serious disease or a biomarker of a serious disease) must be based on a food-health relationship pre-approved by FSANZ. There are currently 13 pre-approved food-health relationships for high-level health claims listed in the Standard. The notified food-health relationship is published on the FSANZ website [34], but FSANZ does not approve or evaluate the relationships. The enforcement authorities in the states and territories in Australia, and MPI in NZ, are responsible for enforcing requirements in the Code, including evaluating the evidence supplied in support of self-substantiated claims.
- FSANZ is currently considering 32 EU-authorised claims for inclusion in the Standard in the context of Australia/NZ health claims regulatory framework. At gazettal of the new Standard, 183 EU-authorised health claims had already been included in the Standard (personal communication, FSANZ, 2017).
- The Standard requires that to use a general or high level health claim, the food to which the claim relates must meet Nutrient Profiling Scoring Criterion (NPSC). The final score = baseline points (based on average energy, saturated fat, total sugar and sodium content per 100 g or 100ml) – (fruit and vegetable points) – (protein points) – (fibre points). An online calculator is available to help food businesses determine a food's nutrient profiling score [35]. New Zealand is one of few countries with a nutrient profiling scheme in place for health claims (personal communication, FSANZ, 2017).
- A Health Claims Scientific Advisory Group was established to provide scientific and technical advice to FSANZ, when requested, in relation to: health claims; and matters relevant to Standard 1.2.7- Nutrition, Health and Related Claims. The role of the High Level Health Claims Committee is to consider and provide recommendations to FSANZ in relation to draft high level health claim variations and/or the application or proposals that resulted in that draft variation (personal communication, FSANZ, 2017).
- Sections S4-4 and S4-5 of Schedule 4 in the Code outline the specific conditions required for pre-approved high level and general level health claims, respectively (e.g. 'calcium reduces risk of osteoporosis': food must contain no less than 290mg of calcium per serving).
- Nutrition content and comparative nutrition content claims: A nutrition content claim (including a comparative claim) can be made in accordance with the requirements set out in the Standard.

Comparative claims must meet minimum standards relating to the difference between the nutrient content of that food and a comparative food (e.g. at least 25% less energy than the same quantity of reference food). Section S4-3 of Schedule 4 outlines the specific conditions required for a nutrition content claim (e.g. to claim 'low fat' the food contains no more fat than 1.5g/ 100 mL for liquid food; or 3g/ 100 g for solid food). For claims about properties of food not listed in section S4-3 of Schedule 4, the claim can only state that the food contains or does not contain the property of food, or contains a specified amount (personal communication, FSANZ, 2017). Where a nutrition content claim is made about any food component, it triggers the need for that component to be included in the nutrition information panel, so that the average amount in the food is known (personal communication, MPI, 2017). The NPSC does not apply for nutrition content claims.

- Recommendation 3 from Labelling Logic: Complete. A Food Labelling Monitoring and Enforcement Framework has been developed [36]. MPI manage non-compliant health claims and nutrition content claims using a graduated and proportionate approach: assess the non-compliant claim, determine the associated risk and use the appropriate tool in response. This ranges from education and advice, through to directed enforcement action which could include directing a business to stop selling the non-complying product. Prosecution is also an option. During 2016, MPI opened 90 investigations relating to non-compliances under Standard 1.2.7 – Nutrition, Health and Related Claims (personal communication, MPI, 2017).
- With regard to self-substantiated claims, MPI continues to evaluate all dossiers associated with notifications from New Zealand food businesses. These are evaluated against the requirements of Schedule 6 of the Australia and New Zealand Food Standards Code (FSC). To date, there have been three formal notifications and some of these are still in the process of evaluation. Dossiers contain commercially sensitive information and therefore are not available in the public domain. Industry holds these dossiers, though are obliged under Standard 1.2.7 to provide them to the regulator (MPI in NZ) when requested. Once MPI are satisfied that notifiers understand the requirements of Schedule 6 of the Food Standards Code, they will then establish criteria for selecting dossiers associated with notifications for evaluation (personal communication, MPI, 2017).
- MPI undertook a baseline survey in 2014/15, identifying nutrition and health claims which were being made on foods in the domestic market during the transition period. Results of this survey were used to identify areas which required additional guidance information, to remind industry on the transitional process and associated deadlines and to develop regulatory tools with regard to the interpretation of the Standard. A follow up survey will be undertaken in 2017 to compare the findings and to identify any areas of ongoing concern (personal communication, MPI, 2017).
- Other MPI work programme activities associated with Standard 1.2.7 include: provision of consumer and industry information on the standard, liaison with industry on the development of dossiers and the development of internal procedures to assess dossiers (personal communication, MPI, 2017). A resource is available from MPI explaining the detailed steps required to complete a systematic review to the requirements of the Food Standards Code. MPI also works actively with researchers and manufacturers to advise on appropriate research design and systematic review strategies prior to notification to FSANZ (personal communication, MPI, 2017).
- MPI engages with health claims regulators in other countries to better align global regulatory understanding of health claim requirements for foods. MPI developed a resource which outlines requirements for nutrition and health claims in over 20 countries (personal communication, MPI, 2017).
- Laws that protect the consumer in NZ include the Fair Trading Act and the Consumer Guarantees Act [37]. It is stated that 'goods must meet the guarantees of acceptable quality, and matching description'. The Ministry of Consumer Affairs prepared a consumer guide to explain the consumer's rights related to the Guarantees Act [38].
- FSANZ Food Standards Development Workplan 11 November 2016 Nutrition related work [39]: Health claims for formulated supplementary sports foods and electrolyte drinks: to permit sports foods to carry health claims about physical performance and sport-related beneficial effects and to enable electrolyte drinks to make self-substantiated health claims beyond current limited permissions. First round of submissions undertaken. Delay in further assessment due to complexity of issues raised in submissions.

International best practice examples (benchmarks)

- **Australia/New Zealand**: A law (Standard 1.2.7) [40], approved in 2013, regulates the use of nutrition content and health claims on food labels in Australia and New Zealand. Health claims must be based on pre-approved food-health relationships or self-substantiated according to government requirements and they are only permitted on foods that meet nutritional criteria, as defined by a nutrient profiling model (NPSC) taking into account energy, sodium, saturated fat and total sugar content of foods, as well as protein, fibre, fruit, vegetable, nut and legume content of foods. Although nutrition content claims also need to meet certain criteria set out in the Standard, there are no generalized nutritional criteria that restrict their use on 'unhealthy' foods *per se*. The industry needed to comply with this new legislation by January 2016. FSANZ has developed an online calculator to help food businesses to calculate a food's nutrient profiling score [41].
- **Indonesia:** Regulation HK.03.1.23.11.11.09909 (2011) [42] on 'The Control of Claims on Processed Food Labelling and Advertisements' establishes rules on the use of specified nutrient content claims (i.e. levels of fat for a low fat claim). The Regulation applies to any food product or beverage which has been processed. Generally, any nutrition or health claim may only be used on processed foods or beverages if they do not exceed a certain level of fat, saturated fat and sodium per serving (13g total fat, 4g saturated fat, 60mg cholesterol and 480mg sodium). The Regulation sets out certain exceptions from this rule, whereby products exceeding these limits may still contain certain nutrient or health claims ('low in [name of nutrient]' and 'free from [name of nutrient]' claims; claims related to fibre, phytosterol and phytostanol; certain disease risk reduction claims) [31].
- **US**: Nutrient-content claims are generally limited to a list of nutrients authorized by the Food and Drug Administration (Food Labelling Guide 1994, as last revised in January 2013). Packages containing a nutrient-content claim must include a disclosure statement if a serving of food contains more than 13g of fat, 4g of saturated fat, 60mg of cholesterol, or 480mg of sodium. Health claims are generally not permitted if a food contains more than 13g of fat, 4g of saturated fat, 60mg of cholesterol, or 480mg of sodium. Sugar and whole grain content are not considered [31, 43].

2 FOOD LABELLING: There is a regulatory system implemented by the government for consumer-oriented labelling on food packaging and menu boards in restaurants to enable consumers to easily make informed food choices and to prevent misleading claims.

LABEL3: A single, consistent, interpretive, evidence-informed front-of-pack supplementary nutrition information system, which readily allows consumers to assess a product's healthiness, is applied to all packaged foods.

Evidence of implementation

- The Blewett Labelling Logic report [24], commissioned by the Australian food ministers, contained several recommendations related to front-of-pack nutrition labelling:
  - Recommendation 50: That an interpretative front-of-pack labelling system be developed that is reflective of a comprehensive Nutrition Policy and agreed public health priorities.
  - Recommendation 51: That a multiple traffic lights front-of-pack labelling system be introduced. Such a system has to be voluntary in the first instance, except where general or high level health claims are made or equivalent endorsements/trade names/marks appear on the label, in which case it should be mandatory.
  - Recommendation 52: That government advice and support be provided to producers adopting the multiple traffic lights system and that its introduction be accompanied by comprehensive consumer education to explain and support the system.
  - Recommendation 53: That on-going monitoring and evaluation of the multiple traffic lights system be undertaken to assess industry compliance and the effectiveness of the system in improving the food supply and influencing consumers' food choices. The forum agreed that no further action is required on these recommendations. The Health Star Rating (HSR) system developed in response to recommendation 50 supersedes these recommendations [36].

    An example of the HSR label is printed below:

- The HSR was introduced in June 2014 in Australia as a voluntary front of pack labelling system [44]. It is designed to help consumers choose between similar foods at the point of purchase. If, following evaluation after five years, a voluntary implementation is found to be unsuccessful, a mandatory approach could be considered. It is a trans-Tasman system implemented in both Australia and New Zealand [45]. The nutrient profiling system used in the HSR is aligned with the Australian and NZ Dietary Guidelines. The system allocates stars to foods based on their nutrition content (energy, risk nutrients: saturated fat, sodium and total sugars, and beneficial components: dietary fibre, protein, fruits, vegetables, nuts and legumes). There are tools and resources including the HSR calculator to help industry adopt the HSR. There is a process to address anomalies and a dispute resolution process [44].
- The committees that guide implementation are: A) The Australian and NZ Ministerial Forum on Food Regulation, this includes ministers responsible for food, including the NZ Minister for Food Safety; B) Front-of-Pack labelling steering committee which was responsible for leading the process for developing the system (now handed over to FRSC); C) The trans-Tasman Health Star Rating Advisory Committee oversees implementation and evaluation of HSR including monitoring. NZ holds one of ten seats. It includes industry, government, consumer and public health representatives; D) The NZ HSR Advisory Group has members from food industry, academia, public health and is chaired by MPI to consider latest evidence, global developments, identify areas of common ground shared by stakeholder groups, provide advice on evaluation during the development and adoption and to oversee implementation [45]. It has an oversight and advisory role.
- By May 2017, 2700 products had HSR. Both major supermarket retailers have committed to having HSR on 100% of their private label products by December 2018 (personal communication, MPI, 2017) [4].
- Colmar Brunton surveyed grocery shoppers in October/November 2015 and again in 2016 to monitor awareness, recognition and correct use of HSR [46]. Another follow-up survey is planned for 2017. The 2015 survey was conducted before consumer marketing and education campaign. The Health Promotion Agency (HPA) marketing campaign rolled out in March 2016, with print media, YouTube videos, web tiles, fact sheet, article, TV. There are messages in some supermarkets and bus stop posters. The consumer campaign will run from March 2016 to June 2018. HPA have worked with food industry and relevant government agencies on campaign [47]. Compared with 2015, awareness, understanding and use of the HSR have increased (personal communication, MPI, 2017).
- A two year progress report on implementation will be considered by the forum in 2017. Work commenced towards a 5 year review (June 2019) with establishment of a Technical Advisory Group (TAG) which will analyse and review the performance of the HSR system calculator and respond to technical issues and related matters referred from the trans-Tasman HSR Advisory Committee. TAG will be a tripartite expert group with members from industry, government and public health organisations and will report to the trans-Tasman HSR Advisory Committee [48].

International best practice examples (benchmarks)

- **Australia/New Zealand**: The government approved a HSR system as a voluntary scheme for industry adoption. The system takes into account four aspects of a food associated with increasing risk for chronic diseases: energy, saturated fat, sodium and total sugars content along with certain 'positive' aspects of a food such as fruit and vegetable content, and in some instances, dietary fibre and protein content. Star ratings range from ½ star (least healthy) to 5 stars (most healthy). Implementation of the HSR system began in June 2014 and is overseen by the Australia and New Zealand Ministerial Forum on Food Regulation, the Front-of-Pack Labelling Steering Committee, the Trans-Tasman Health Star Rating Advisory Committee, the New Zealand Health Star Rating Advisory Group and a recently established Technical Advisory Group (TAG). The TAG is currently evaluating progress as well as conducting a formal

review of the HSR system, including an assessment of the underlying algorithm. In New Zealand, as of May 2017, about 2700 products have stars on them [49]. The Minister of Health in **France** has announced that a similar voluntary front-of-pack labelling system will be introduced, but based on 5 colours instead of stars.

- **UK:** Traffic light labelling has been recommended for use in the UK since 2006. In 2013, the Government published national guidance for voluntary 'traffic light' labelling for use on the front of pre-packaged food products. The label uses green, amber and red to identify whether products contain low, medium or high levels of energy, fat, saturated fat, salt and sugar. The format of the label and thresholds for nutrients of concern for red, amber and green can be found elsewhere [50]. A combination of colour coding and nutritional information is used to show how much fat, salt and sugar and how many calories are in each product. The voluntary scheme is used by all the major retailers and some manufacturers [50]. Traffic lights are displayed on about two thirds of UK food products.
- **Ecuador**: A regulation of the Ministry of Public Health published in November 2013 (No. 4522, El Reglamento de Etiquetado de Alimentos Procesados) requires packaged foods to carry a 'traffic light' label in which the levels of fats, sugar and salt are indicated by red (high), amber (medium) or green (low). Full compliance with the regulation was required by 29 August 2014 [31]. The legislation including format of the label and thresholds for nutrients of concern for red, amber and green can be found online [51].
- **Chile:** In 2012, the Chilean Government approved a Law of Nutritional Composition of Food and Advertising (Ley 20, 606) [52]. In June 2015, the Chilean authority approved the regulatory norms required for the law's implementation (Diario Oficial No 41.193). The regulatory norms define limits for calories (275 calories/100g or 70 calories/100mL), saturated fat (4g/100g or 3g/100mL), sugar (10g/100g or 5g/100mL) and sodium (400mg/100g or 100mg/100mL) content considered 'high' in foods and beverages. All foods that exceed these limits need to have a front-of-package black and white warning message inside a stop sign that reads 'HIGH IN' followed by CALORIES, SATURATED FAT, SUGAR or SODIUM. A warning message needs to be added to products per nutrient of concern exceeding the limit (e.g. a product high in fat and sugar will have 2 stop signs). The regulatory norms provide specifications for the size, font, and placement of the warning message on products. The limits for calories, saturated fat, sugar and sodium are being implemented using an incremental approach, reaching the defined limits by 1 July 2018 [31]. Although no studies are available yet, the regulation is reported to be well implemented already with many products carrying the warning labels.

2 FOOD LABELLING: There is a regulatory system implemented by the government for consumer-oriented labelling on food packaging and menu boards in restaurants to enable consumers to easily make informed food choices and to prevent misleading claims.

LABEL4: A consistent, single, simple, clearly-visible system of labelling the menu boards of all quick service restaurants (i.e. fast food chains) is applied by the government, which allows consumers to interpret the nutrient quality and energy content of foods and meals on sale.

Evidence of implementation

- There is no government-initiated mandatory or voluntary labelling of foods and meals in any restaurants or outlets across New Zealand. In some chains, voluntary information is available.
- Relevant recommendations from the Labelling Logic report [24], commissioned by Australian food minister are: 18: *'That the declaration of energy content of standardised food items on the menu/menu boards or in close proximity to the food display or menu should be mandatory in chain food service outlets and on vending machines. Further, information equivalent to that provided by the Nutrition Information Panel (NIP) should be available in a readily accessible form in chain food service outlets*'. The Forum agreed that no further action is required on this recommendation. The Australia and New Zealand Food Regulation Ministerial Council has agreed that jurisdictions that have implemented point of sale nutrition schemes should work together informally to aggregate their data. 54: '*That chain food service outlets across Australia and New Zealand should be encouraged to display the multiple traffic lights system on menus/menu boards. Such a system should be mandatory where general or high level health claims are made or equivalent endorsements/trade names/marks are used*'. The Forum agreed

that no further action is required on this recommendation recognizing that progress has been made on point-of-sale nutrition schemes [36].

- The government is supportive of the voluntary industry-led initiatives currently being implemented and will consider the evaluation of these initiatives prior to considering regulatory measures of this nature being adopted through the Food Standards Code [53].
- The Heart Foundation's new initiative 'Kids' Choice' [54], supports cafes, restaurants and bars that want to serve healthier food to children. Food services use the Heart Foundation Kids' Choice branding on the children's menu to highlight healthier menu items and/or the overall menu that meet specific criteria. It is supported by the MoH.

International best practice examples (benchmarks)

- **Australia**: Legislation in Australian Capital Territory (Food Regulation 2002), the States of New South Wales (Food Regulation 2010) and South Australia (Food Regulation 2002) requires restaurant chains (e.g. fast food chains, ice cream bars) with ≥20 outlets in the state (or seven in the case of ACT), or 50 or more across Australia, to display the kJ content of food products on their menu boards. Average adult daily energy intake of 8700 kJ must also be prominently featured. Other chains/food outlets are allowed to provide this information on a voluntary basis, but must follow the provisions of the legislation [31].
- **South Korea**: Since 2010, the Special Act on Safety Control of Children's Dietary Life has required all chain restaurants with 100 or more establishments to display nutrient information on menus including energy, total sugars, protein, saturated fat and sodium [31].
- **Taiwan**: Since July 2015, convenience store chains, drink vendor chains and fast food chains have had to label the sugar and caffeine content of prepared-when-ordered drinks (e.g. coffee-and-tea-based drinks, fruit and vegetable juices) according to a regulation based on the Food Safety and Sanitation Act. The amount of sugar added to drinks (specified in sugar cubes) and its calorie content must be displayed on drink menus and/or notice boards in a prescribed minimum font. In addition, different colours have to be used to signal the level of caffeine contained in coffee drinks [31].
- **US**: Section 4205 of the Patient Protection and Affordable Care Act (2010) [55] requires that all chain restaurants with 20 or more establishments display energy information on menus. The implementing regulations were published by the Food and Drug Administration on 1 December 2014. Implementation has been delayed several times and is now set for 5 May 2017. Two states (California and Vermont), seven counties (e.g. King County, WA and Albany County NY) and two municipalities (New York City, Philadelphia) have already implemented regulations requiring chain restaurants (often chains with more than a given number of outlets) to display calorie information on menus and display boards. These regulations will be pre-empted by the national law once implemented; local governments will still be able to enact menu labelling regulations for establishments not covered by national law. The regulations also require vending machine operators of more than 20 vending machines to post calories for foods where the on-pack label is not visible to consumers by 26 July 2018 [31].
- **New York**: Following an amendment to Article 81 of the New York City Health Code (addition of section 81.49), chain restaurants are required to put a warning label on menus and menu boards, in the form of a salt-shaker symbol (salt shaker inside a triangle), when dishes contain 2,300 mg of sodium or more. It applies to food service establishments with 15 or more locations nationwide. In addition, a warning statement is required to be posted conspicuously at the point of purchase: "Warning: [salt shaker symbol] indicates that the sodium (salt) content of this item is higher than the total daily recommended limit (2300 mg). High sodium intake can increase blood pressure and risk of heart disease and stroke." This came into effect 1 December 2015 [31, 56].

3 FOOD PROMOTION: There is a comprehensive policy implemented by the government to reduce the impact (exposure and power) of promotion of unhealthy foods to children (<16years) across all media.

PROMO1: Effective policies are implemented by the government to restrict exposure and power of promotion of unhealthy foods to children through broadcast media (TV, radio).

Evidence of implementation

- There are no government regulations in place to restrict unhealthy food marketing to children through broadcast media.
- A 2015 NZ study found that in peak viewing times (6–7pm), more than 120,000 5–13 year olds were exposed to over 15 unhealthy food advertisements an hour on television, creating over 2 million 'impacts' (ad impressions x viewers) per hour [57].
- The Government stimulated a review of the Advertising Standards Authority (ASA) Code on Advertising to Children and the Children's Code for Advertising Food as part of the Childhood Obesity Plan. Initiative 9: 'Marketing and advertising to children', with a report published in 2016 [58]. The Code for Advertising to Children and the Children's Code for Advertising Food were reviewed by an independent panel with open public consultation and public health representation. The ASA Codes review panel made 7 recommendations to further restrict advertising to children. The Review Panel has revised and combined the Codes and recommended other actions to help reduce the impact on children and young people of marketing that may cause physical, mental and moral harm, including the marketing of unhealthy food and beverages.
- Changes from the 2010 Code: Two codes combined into one, age raised from under 14 years to under 18 years, new definition of occasional food, new restriction on advertising occasional food in children's settings, definition for 'targeted to children' but unclear how this will be operationalized and a review of the new Code by 77 health professors has criticized this definition [59].
- The Code comes into effect 03/07/17 for new advertisements and 02/10/17 for existing ones [60].
- The draft code and recommendations were considered by the ASA's Codes Committee [61]:
  - The ASA adopts the draft Children and Young People's Advertising Code in place of the Children's Code for Advertising Food and the Code for Advertising to Children. Response: Consultation was undertaken with submitters and the draft Code was revised.
  - Advertisers are encouraged to discuss undertakings on matters outside the jurisdiction of the ASA including packaging and commercial sponsorship agreements directly with government and other stakeholders. Response: ASA supports the Healthy Kids Industry Pledge.
  - The ASA to actively promote the complaints process to consumers and report annually on progress. Response: ASA will include progress in the annual report. More channels for communication with stakeholders and published are being established.
  - Advertisers and media are encouraged to adopt a pre-vetting process for occasional food and beverage advertising to children and young people to support code compliance. Response: ASA supports proposal from Association of NZ Advertisers for a trial of pre-vetting occasional food and beverage advertising to children.
  - The ASA to work with its members and wider stakeholders to develop robust monitoring of occasional food and beverage advertising compliance. Response: ASA considers a pro-active approach to code-compliance prior to publication or broadcast via pre-approval is preferable to a post-publication monitoring process.
  - The advertising industry, government and the health sector to work together to identify a fit for purpose nutrient profile system for advertising food and beverages in New Zealand. Response: Governance Board support the Food and Beverage Classification System as the interim system.
  - The code defines children as below 14 years and young people as 14 years and under 18 years.
  - Principle 1: Advertisements targeted at children or young people must not contain anything that is likely to result in their physical, mental or moral harm and must observe a high standard of social responsibility.
    - Rule 1(i) Advertisements (including sponsorship advertisements) for occasional food or beverage products must not target children or be placed in any media where children are likely

to be a significant proportion of the expected average audience (25% or more of expected audience will be children).
    - Rule 1(j) a special duty of care must be applied to occasional food and beverage product advertising to young people.
    - Rule 1(k) the quantity of the food in the advertisement should not exceed portion sizes that would be appropriate for consumption on one occasion by a person or persons of the age depicted.
    - Rule 1(l) Advertisements featuring a promotional offer of interest to children or young people which is linked to food and beverage products must avoid creating a sense of urgency or encouraging the purchase of an excessive quantity for irresponsible consumption. Guidance note: no promotional offers for occasional food and beverage products to children.
  - Principle 2: Advertisements must not by implication, omission, ambiguity or exaggerated claim mislead or deceive or be likely to mislead or deceive children or young people, abuse their trust or exploit their lack of knowledge.
    - Rule 2(f) Advertisements must not mislead as to the potential physical, social or mental health benefits from consumption of the product.
  - Principle 3: A special duty of care must be exercised for Occasional Food and Beverage Product sponsorship advertising targeted to young people.
    - Rule 3(a) Sponsorship advertisements must not show an occasional food or beverage product, or such product's packaging, or depict the consumption of an occasional food or beverage product.
    - Rule 3(b) Sponsorship advertisements must not imitate or use any parts of product advertisements for occasional food or beverage products from any media.

International best practice examples (benchmarks)

- **Norway/Sweden**: Under the Broadcasting Act, advertisements (food and non-food) may not be broadcast on television directed to children or in connection with children's programs. This applies to children 12 years and younger [62].
- **Quebec (Canada)**: Quebec is the only province in Canada where children below 13 years old are protected under the Consumer Protection Act since 1980 [63]. In Quebec, the Consumer Protection Act prohibits commercial advertising (including food and non-food) directed at children less than 13 years of age through television, radio and other media. To determine whether or not an advertisement is directed at persons under 13 years of age, account must be taken of the context of its presentation, and in particular of: a) the nature and intended purpose of the goods advertised; b) the manner of presenting such advertisement; and c) the time and place it is shown. A cut-off of 15% share of children audience is used to protect children from TV advertising [64]. Any stakeholder involved in a commercial process (from the request to create an advertisement to its distribution, including its design) may be accused of not complying with the legislation in force. Per indictment, that person is liable to: a fine ranging from $600 to $15,000 (in the case of a natural person); a fine ranging from $2,000 to $100,000 (in the case of a legal person). Notably, for the rest of Canada, child-directed food marketing is self-regulated using the Canadian Children's Food and Beverage Advertising Initiative (CAI) by Advertising Standards Canada (ASC) through The Broadcast Code for Advertising to Children.
- **Chile**: In 2012, the Chilean government approved a Law of Nutritional Composition of Food and Advertising (Ley 20, 606) [52]. In June 2015, the Chilean authority approved the regulatory norms required for the law's implementation (Diario Oficial No 41.193). The regulatory norms define limits for calories (275 calories/100g or 70 calories/100mL), saturated fat (4g/100g or 3g/100mL), sugar (10g/100g or 5g/100mL) and sodium (400mg/100g or 100mg/100mL) content considered 'high' in foods and beverages. The law restricts advertising directed to children under the age of 14 years of foods in the 'high in' category. The regulatory norms define advertising targeted to children as programmes directed to children or with an audience of greater than 20% children, and according to the design of the advertisement. Promotional strategies and incentives, such as cartoons, animations, and toys that could attract the attention of children are included in the ban. The regulation is scheduled to take effect 1 July

2016 [19]. Chile outlaws Kinder Surprise eggs and prohibits toys in McDonald's 'Happy Meals' as part of this law [65].

- **Ireland**: Advertising, sponsorship, teleshopping and product placement of foods high in fats, sugars and salt, as defined by a nutrient profiling model, are prohibited during children's TV and radio programmes where over 50% of the audience are under 18 years old (Children's Commercial Communications Code, 2013 revision). In addition, there is an overall limit on advertising of foods high in fats, sugars and salt at any time of day to no more than 25% of sold advertising time and to only one in four advertisements. Remaining advertising targeted at children under the age of 13 must not include nutrient or health claims or include licensed characters [19].
- **South Korea**: TV advertising to children less than 18 years of age is prohibited for specific categories of food before, during and after programmes shown between 5-7pm and during other children's programmes (Article 10 of the Special Act on the Safety Management of Children's Dietary Life, as amended 2010) [19, 66].

3 FOOD PROMOTION: There is a comprehensive policy implemented by the government to reduce the impact (exposure and power) of promotion of unhealthy foods to children (<16years) across all media.

PROMO2: Effective policies are implemented by the government to restrict exposure and power of promotion of unhealthy foods to children through non-broadcast media (e.g. Internet, social media, food packaging, sponsorship, outdoor advertising including around schools).

Evidence of implementation

- There are no government regulations in place to restrict unhealthy food marketing to children through non-broadcast media.
- The Government stimulated a review of the ASA Code on Advertising to Children and the Children's Code for Advertising Food as part of the Childhood Obesity Plan. Initiative 9: 'Marketing and advertising to children', with a report published in 2016 [58]. The Code for Advertising to Children and the Children's Code for Advertising Food were reviewed by an independent panel with open public consultation and public health representation. Changes to the Children and Young People's Advertising Code in 2017 include a broader definition of advertisement which includes sponsorship, a new definition of occasional food, new restrictions on advertising occasional food and on sponsorship of occasional food when the audience of children is higher than 25% or in locations where children gather [60]. The code does not apply to food packaging and commercial sponsorship and it is unclear whether advertising around schools is included as part of children's settings.

International best practice examples (benchmarks)

- **Chile**: In 2012, the government approved a Law of Nutritional Composition of Food and Advertising (Ley 20, 606) [52]. In June 2015, the authorities approved the regulatory norms required for the law's implementation (Diario Oficial No 41.193). The regulatory norms define limits for calories (275 calories/100g or 70 calories/100mL), saturated fat (4g/100g or 3g/100mL), sugar (10g/100g or 5g/100mL) and sodium (400mg/100g or 100mg/100mL) content considered 'high' in foods and beverages. The law restricts advertising directed to children under the age of 14 for foods in the 'high in' category. The regulatory norms define advertising targeted to children as websites directed to or with an audience of greater than 20% children, and according to the design of the advertisement. Promotional strategies and incentives, such as cartoons, animations, and toys that could attract the attention of children are included in the ban. The regulation took effect 1 July 2016 and applies to all advertising media [19]. Chile outlaws Kinder Surprise eggs and prohibits toys in McDonald's 'Happy Meals' as part of this law [65].
- **Quebec (Canada)**: Quebec is the only province in Canada where children below 13 years old are protected under the Consumer Protection Act since 1980 [63]. In Quebec, the Consumer Protection Act prohibits commercial advertising directed at children less than 13 years through all media. To determine whether or not an advertisement is directed at persons under 13, account must be taken of the context, and in particular of: a) the nature and intended purpose of the goods advertised; b) the manner of presenting advertisement; c) the time and place it is shown [64]. Any stakeholder involved in a

commercial process (from the request to create an advertisement to its distribution, including its design) may be accused of not complying with the legislation in force. Per indictment, that person is liable to: a fine ranging from; $600 to 15,000 (for natural person); $2,000 to 100,000 (for a legal person). For the rest of Canada, child-directed food marketing is self-regulated using the Canadian Children's Food and Beverage Advertising Initiative by Advertising Standards Canada through The Broadcast Code for Advertising to Children.

3 FOOD PROMOTION: There is a comprehensive policy implemented by the government to reduce the impact (exposure and power) of promotion of unhealthy foods to children (<16years) across all media.

PROMO3: Effective policies are implemented by the government to ensure that unhealthy foods are not commercially promoted to children in settings where children gather (e.g. preschools, schools, sport and cultural events).

Evidence of implementation:

- There are no government regulations in place to restrict unhealthy food marketing to children in children's settings.
- The Government stimulated a review of the ASA Code on Advertising to Children and the Children's Code for Advertising Food as part of the Childhood Obesity Plan: Initiative 9: 'Marketing and advertising to children', with a report published in 2016 [58]. The Code for Advertising to Children and the Children's Code for Advertising Food were reviewed by an independent panel with open public consultation and public health representation. Changes to the Children and Young People's Advertising Code in 2017 now restrict advertising of occasional food in locations where children gather, including schools and early childhood education services [60].
- There are guidelines on the Ministry of Education's website for schools to develop policies relating to the food environment in their school [67]. Within the section 'developing a food and nutrition policy framework' the following recommendation is included: 'It is recommended to critically review the promotion of foods and beverages to children and young people including through sponsored curriculum materials, advertisements, fundraisers, and sponsorship'.

International best practice examples (benchmarks)

- **Chile**: In 2012, the Chilean government approved a Law of Nutritional Composition of Food and Advertising (Ley 20, 606) [52]. In June 2015, the Chilean authority approved the regulatory norms required for the law's implementation (Diario Oficial No 41.193). The regulatory norms define limits for calories (275 cal./100g or 70 cal./100mL), saturated fat (4g/100g or 3g/100mL), sugar (10g/100g or 5g/100mL) and sodium (400mg/100g or 100mg/100mL) content considered 'high' in foods and beverages. The law restricts advertising directed to children under the age of 14 of foods in the 'high in' category on school grounds, including preschools, primary and secondary schools. Promotional strategies and incentives, such as cartoons, animations and toys that could attract the attention of children are included in the ban. The regulation took effect from 1 July 2016 [19].
- **Spain**: In 2011 the Spanish Parliament approved a Law on Nutrition and Food Safety (Ley 17/2011), which stated that kindergartens and schools should be free from all advertising. Criteria for the authorisation of food promotion campaigns, nutritional education and promotion of sports or physical activity campaigns were developed jointly by the Spanish Agency for Consumer Affairs, Food Safety and Nutrition (AECOSAN) and the Regional Health Authorities and implemented in July 2015. AECOSAN and the Spanish Regional Education and Health Administrations monitor the enforcement of the law [19].
- **Uruguay**: In September 2013, the government of Uruguay adopted Law No 19.140 'Alimentación saludable en los centros de enseñanza' (Healthy foods in schools) [68]. The law prohibits the advertising and marketing of foods and drinks that don't meet the nutrition standards [referenced in Article 3 of the law, and outlined in school nutrition recommendations published by the Ministry of Health in 2014]. Advertising in all forms is prohibited, including posters, billboards and use of logos/brands on school supplies, sponsorship and distribution of prizes and free samples on school premises and the display and visibility of food. The implementation of the law started in 2015 [19].
- **Hungary**: Based on Section 8 of Act XLVIII on Basic Requirements and Certain Restrictions of Commercial Advertising Activities (2008), Hungary prohibits all advertising directed at children under 18 in child welfare and child protection institutes, kindergartens, elementary schools and their dormitories. Health promotion and prevention activities in schools may only involve external organizations and consultants who are recommended by the National Institute for Health Development according to Section 128 (7) of the Ministerial Decree 20/2012 (VIII.31.) on the Operation of Public Education Institutions and the Use of Names of Public Education Institutions [62].

4 FOOD PRICES: Food pricing policies (e.g. taxes and subsidies) are aligned with health outcomes by helping to make the healthy eating choices the easier, cheaper choices.

PRICES1: Taxes on healthy foods are minimised to encourage healthy food choices where possible (e.g. low or no sales tax, excise, value-added or import duties on fruit and vegetables).

Evidence of implementation

- Goods and services tax (GST) applies equally to all foods in NZ**.** There is no reduction of taxes on healthy foods in NZ, and it was never actively considered by the government due to complexity and potential revenue shortfall. The current government policy is not in favour of introducing exemptions. There has been no change since 2013.

International best practice examples (benchmarks)

- **Australia**: Goods and services tax (GST) exemption exists for basic foods (including fresh fruits and vegetables) [69].
- **Tonga**: In 2013, as part of a broader package of fiscal measures, import duties were lowered from 20% to 5% for imported fresh, tinned or frozen fish in order to increase affordability and promote healthier diets [70].
- **Fiji**: To promote fruit and vegetable consumption, Fiji has removed the excise duty on imported fruits, vegetables and legumes. It has also decreased the import tax for most varieties from the original 32% to 5% (exceptions: 32% remains on tomatoes, cucumbers, potatoes, squash, pumpkin and 15% remains on coconuts, pineapples, guavas, mangosteens) and removed it for garlic and onions [70].
- **Poland**: In Poland, the basic rate of tax on goods and services is 22%, while the rate is lower (7%) for goods related to farming and forestry and even lower (3%) for unprocessed and minimally processed food products [71].

4 FOOD PRICES: Food pricing policies (e.g., taxes and subsidies) are aligned with health outcomes by helping to make the healthy eating choices the easier, cheaper choices.

PRICES2: Taxes on unhealthy foods (e.g. sugar-sweetened beverages, foods high in nutrients of concern) are in place to discourage unhealthy food choices where possible, and these taxes are reinvested to improve population health.

Evidence of implementation

- There is no increase in taxes on unhealthy foods in NZ. The current government policy is not in favour of introducing taxes on specific foods. This situation has not changed since 2014.
- A Green Party media release on 8 December 2016 [72] reported that an email obtained under official information requests showed Sir Peter Gluckman informed the Minister of Health on July 3 2016 that the evidence for a tax was compelling. Recent evidence from Mexico suggests a substantial and sustained effect [73, 74]. In October 2016, during question time, the Minister of Health said he was waiting for the results of two other studies from Waikato University (due end of 2018) and the University of North Carolina.
- The Minister of Health received two health reports in 2015 [75] about implementing a sugar tax applying to sugar and/or products high in sugar. The first report recommended that the Minster note that sugar taxes potentially have a role in reducing sugar consumption and obesity, that international evidence is inconclusive and that a range of detailed design options would need to be worked through by agencies before a specific proposal could be put to Cabinet, requiring significant resource. The second report provided information on the imposition of a sugar tax in Mexico and evidence around its impact.

International best practice examples (benchmarks)

- **Mexico**: In December 2013, the Mexican legislature passed two new taxes as part of the national strategy for the prevention of overweight, obesity and diabetes. An excise duty of 1 peso ($0.80) per litre applies to sugary drinks. Sugary drinks are defined under the new law as all drinks with added sugar, excluding milks or yoghurts. This is expected to increase the price of sugary drinks by around 10%. An ad valorem excise duty of 8% applies to foods with high caloric density, defined as equal to or more than 275 calories per 100 grams. The food product categories that are affected by the tax include chips and snacks, confectionary, chocolate and cacao based products, puddings and peanut and hazelnut butters. The taxes entered into force on 1 January 2014. The aim is for the revenue of taxes to be reinvested in population health, namely providing safe drinking water in schools, but there is no evidence (yet) that this is the case as the taxes are not earmarked [70, 74].
- **Hungary**: A 'public health tax' adopted in 2012 is applied on the salt, sugar and caffeine content of various categories of ready-to-eat foods, including soft drinks (both sugar- and artificially-sweetened), energy drinks and pre-packaged sugar-sweetened products. The tax is applied at varying rates. Soft drinks, for example, are taxed at $0.24 per litre and other sweetened products at $0.47/litre. The tax also applies to products high in salt, including salty snacks with >1g salt/100g, condiments with >5g salt/100g and flavourings >15g salt/100g [70, 76].
- **French Polynesia**: Various food and beverage taxes have been in place since 2002 to discourage consumption and raise revenue (e.g. domestic excise duty on sweetened drinks and beer; import tax on sweetened drinks, beer and confectionery; tax on ice cream). Between 2002 and 2006, tax revenues went to a preventive health fund; from 2006, 80% has been allocated to the general budget and earmarked for health. The tax is 40 CFP (around $0.44) per litre on domestically-produced sweet drinks, and 60 CFP (around $0.68) per litre on imported sweet drinks [70].
- **St Helena**: In effect since 27 May 2014, a £0.75 per litre excise duty (about $1.14) is applied to high-sugar carbonated drinks (Customs and Excise Ordinance Chapter 145, Section 5). High sugar carbonated drinks are defined as drinks containing ≥15 grams of sugar/litre [70].
- **UK**: The Government announced a sugar tax on the soft drinks industry as part of the 2016 Budget [77]. Soft drinks manufacturers will be taxed according to the volume of the sugar-sweetened drinks they produce or import. Drinks will fall into two bands: one for total sugar content above 5g/100ml (to be taxed at 18 pence/L), and a second, higher band for the most sugary drinks with more than 8g/100ml (to be taxed at 24 pence/L). The tax will come into force in 2017 in order to give companies time to change the ingredients of their products. The measure will raise an estimated £520 million a year, and will be spent on doubling funding for sport in primary schools. Secondary schools will meanwhile be encouraged to offer more sport as part of longer school days. Pure fruit juices and milk-based drinks will be excluded, as well as small producers.

4 FOOD PRICES: Food pricing policies (e.g. taxes and subsidies) are aligned with health outcomes by helping to make the healthy eating choices the easier, cheaper choices.

PRICES3: The intent of existing subsidies on foods, including infrastructure funding support (e.g. research and development, supporting markets or transport systems), is to favour healthy rather than unhealthy foods.

Evidence of implementation

- Subsidies on foods in New Zealand are quite small compared to other countries (e.g. agricultural subsidies in the US).
- The major aim of all the 10 National Science Challenges introduced in 2013 is to identify big science-based issues for New Zealand that, if addressed, will contribute significantly to the wellbeing of the nation, including through economic growth [78]. The National Science Challenge on high value nutrition drives functional food development towards foods on which health claims can be made. There is a focus on generating functional foods for export, metabolic health, gastrointestinal health, immune health and weaning foods for health. Workstreams: food science and supporting health benefits, consumer insights into the export food-for-health market [79].

- Councils can approve and encourage applications for farmers markets on Council owned land, remove any stall fees and charges at farmers markets, regional councils can ensure appropriate transport links are available to markets and other fruit and vegetable outlets, cycle pathways, lighting etc. for night markets (personal communication, Sarah Stevenson Public Health Service Tauranga, 2017). Councils usually support farmers markets by land allocation and bus routes. Support for farmers markets is quite common by NZ Councils. To our knowledge, no councils to date boost support for fresh fruits and vegetables at produce markets, by such measures as providing free stall space.

International best practice examples (benchmarks)

- **Singapore**: The government, through the Health Promotion Board (HPB) increases the availability and use of healthier ingredients through the 'Healthier Ingredient Scheme' (formerly part of the 'Healthier Hawker' programme, launched in 2011), which provides in the first instance transitional support to oil manufacturers and importers to help them increase the sale of healthier oils to the food service industry [80]. The Healthier Ingredient Subsidy Scheme offers a subsidy to suppliers stocking healthier items. Cooking oil is the first ingredient under the scheme, which subsidises oils with a saturated fat level of 35 % or lower.

4 FOOD PRICES: Food pricing policies (e.g. taxes and subsidies) are aligned with health outcomes by helping to make the healthy eating choices the easier, cheaper choices.

PRICES4: The government ensures that food-related income support programs are for healthy foods.

Evidence of implementation

- Food-related income support is not tied to criteria related to the nutritional quality of foods in New Zealand.
- The Ministry of Social Development, through Work and Income, can provide recoverable or non-recoverable financial assistance to people to meet an immediate need for essential items such as food, health costs, power and other costs. These payments are available to any person as long as they meet the income and asset test, and they are unable to meet the cost from any other source. This form of support is not tied to any nutritional requirements. A Disability Allowance may be available for someone on a limited income for additional, on-going costs of therapeutic value. This can include special foods which are beyond the normal costs of healthy eating, for example lactose free diet, coeliac disease etc. [81].
- The NZ Government joined KickStart Breakfast as a supporter in May 2013, allowing the programme to extend from two to five days and committing $9.5 million over 5 years to fund half the cost of the programme, as part of Government's commitment to optimal outcomes for children and young people [82]. From term 1 in 2014, all schools were eligible to join. Fonterra and Sanitarium provide the product. The school community provides plates etc., location, food storage facilities and volunteers. Statistics are published every term on the website [83]. Term 4 2016 had 905 participating schools (573 in July 2013), and 28,410 consumers (23,574 in July 2013). 767 schools served breakfast more than 2 days per week with an average of 4.5 days. There were 125 862 breakfasts served per week. 82% of the schools are decile 1-4. There are no nutrition requirements set for this programme by the Ministry of Social Development, any decisions around nutritional requirements are matters for the individual schools (information on nutritional requirements retrieved through official information request 2014).
- The Government funds the Fruit in Schools (FIS) programme, which all decile one and two primary and intermediate schools are able to opt into. At July 2013, there were about 521 decile 1-2 schools in NZ [84]. At the start of term1 2017, 543 schools and 104 244 students were participating [84, 85]. An independent evaluation in 2015 found FIS highly valued by principals and aligned with international evidence on how to improve nutrition and reduce obesity in children. The programme is funded by MoH and managed by United Fresh. During 2016, 103 000 students and 12 000 staff participated with more than 20 million servings fruit [85]. Government invests $7.8 million per year [86] and by February 2017 there were over 104 000 children participating from 543 schools.

International best practice examples (benchmarks)

- **UK**: The British Healthy Start programme provides pregnant women and/or families with children under the age of four with weekly vouchers to spend on foods including milk, plain yoghurt, and fresh and frozen fruit and vegetables. Participants or their family must be receiving income support/jobseekers allowance or child tax credits. Pregnant women under the age of 18 can also apply. Full national implementation of the programme began in 2006 [70].
- **US**: In 2012, the U.S. Department of Agriculture (USDA) piloted a 'Healthy Incentives Pilot' as part of the Supplemental Nutrition Assistance Program (SNAP, formerly 'food stamps'). Participants received an incentive of 30 cents per US$ spent on targeted fruit and vegetables (transferred back onto their SNAP card). The Pilot included 7500 individuals [70]. In New York City and Philadelphia, 'Health Bucks' are distributed to farmers markets. When customers use income support (e.g. Food Stamps) to purchase food at farmers markets, they receive one Health Buck worth 2USD for each 5USD spent, which can then be used to purchase fresh fruit and vegetable products at a farmers market [70]. In Philadelphia, the programme has been expanded to other retail settings like supermarkets and corner stores.
- **US**: In 2009, the USDA implemented revisions to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to improve the composition and quantities of WIC-provided foods from a health perspective. The revisions include: Increase the dollar amount for purchases of fruits and vegetables, expand whole-grain options, allow for yoghurt as a partial milk substitute, allow parents of older infants to buy fresh produce instead of jarred infant food and give states and local WIC agencies more flexibility in meeting the nutritional and cultural needs of WIC participants [70].

5 FOOD PROVISION: The government ensures that there are healthy food service policies implemented in government-funded settings to ensure that food provision encourages healthy food choices, and the government actively encourages and supports private companies to implement similar policies.

PROV1: The government ensures that there are clear, consistent policies (including nutrition standards) implemented in schools and early childhood education services for food service activities (canteens, food at events, fundraising, promotions, vending machines etc.) to provide and promote healthy food choices.

Evidence of implementation

- The National Administration Guidelines (NAG) for school administration set out statements of desirable principles of conduct or administration for specified personnel or bodies. The NAG 5 [87] states that each board of trustees is required to promote healthy food and nutrition for all students. If a parent of a student had concerns about the school's response to the NAG 5 requirement, then the parent would take their concern directly to the board. There is no minimum nutritional standard for school canteens in New Zealand. Currently, a school board of trustees is obliged to comply with the requirement to 'promote healthy food and nutrition for all students' in its school. The responsibility for complying with that requirement rests with the board of trustees, not with ERO or the Ministry of Education. ERO does not have any powers other than its ability to publish reports, and any powers of 'enforcement' would be through the Ministry. Where a school board fails to comply with its legal obligations to any significant extent, the Ministry can consider an intervention under Part 7A of the Education Act 1989. As part of ERO's general education review process, which is described in ERO's publication Framework for School Reviews, ERO uses the Guidelines of Board Assurance Statement and Self-Audit Checklists in which a board is asked to attest to comply with a considerable number of legal obligations in six areas – Board Administration, Curriculum, Health, Safety and Welfare, Personnel, Financial, and Asset Management – before ERO's review of the school commences. ERO then does not review those matters attested to, but takes that attestation on trust. ERO does however check on items related in particular to student safety because they have a potentially high impact on student achievement.
- From June 2008 to February 2009 there was an additional clause that schools should only sell healthy food on their premises, removed by the National Government. Prior to the removal of the directive, in June 2008 and January 2009 ERO completed two national reports on the NAG 5 requirements, and published these on its website but has not reported on NAG 5 since that time (personal communication, ERO, 2014).
- The Food and Beverage Classification System was updated in March 2016 [88]. It is more stringent with the only subcategories of beverages being plain water and milk. It includes a recommendation that 'The MoH and Ministry of Education recommends schools be plain water and reduced-fat milk only, and early learning services be plain water and plain milk only as part of the national Childhood Obesity Plan [89] with information being provided to all schools by the Ministry of Education. The Ministry of Education web page, 'Promoting healthy lifestyles', has resources for schools including a template for formulating a 'water-only' policy, link to healthy, confident kids guidelines and the food and beverage classification system [90] There are guidelines on the Ministry of Education's website for schools to develop policies related to the food environment in their school [67].
- In late 2015, the Cabinet Social Policy Committee asked ERO to assess 'the current status of food, nutrition and physical activity in schools and early childhood services' [91]. The sample was 202 ECEs, 46 primary schools and 29 secondary schools. Most schools and ECEs were doing a good job of equipping young people with the knowledge, skills and attitudes to make healthy choices around food, nutrition and physical activity. However young people were restricted by the food available to them through affordability, provision by parents and cheap, unhealthy foods at retail outlets near schools. Almost 90% of ECEs, 75% of primary schools and two-thirds of secondary schools were doing well at promoting children's positive attitudes to food, nutrition and physical activity. In these ECEs and primary schools, teachers were modelling healthy choices. These primary schools were guided by sound policies and procedures. These secondary schools had a clear vision for student wellbeing, actively involving students in decision making. Some schools had reduced or removed unhealthy options in their school canteens.

Most schools had healthy options available for students to purchase, though in some schools, price and profit influenced the foods sold.

- The Early Childhood Education (ECE) Services Regulations 2008 mention: 46 Health and safety practices standard: 1 (a) take all reasonable steps to promote the good health and safety of children enrolled in the service.
- The Children's Commissioner published Guidelines for School Food Programmes: Best Practice Guidance For Your School (February 2014) [92]. Principles: school food programmes should be child-centred, inclusive, and nutritionally sound, take a whole-school approach, and be sustainable and evidence-based. The guidelines include examples of successful school food programmes in Appendix 1 of that document.
- The Ministry of Education provides advice and resources to schools such as infographics showing the amount of sugar in drinks, as well as healthy eating guidelines available on the website [90]. The Health Promotion Agency has also produced supporting resources specifically designed for schools promoting water as the best drink option. The food and nutrition guidelines are current and being used by schools. The Ministry of Education is working in partnership with the Ministry of Health, Health Promoting Schools and subject associations to explore, update and socialise the guidelines (personal communication, MoE, 2017).
- Project Energize supports schools to implement food and nutrition policies and provide healthy food [93].

International best practice examples (benchmarks)

- **Australia**: There are no national mandatory standards. However, six states and territories have implemented mandatory standards, which are either based on the national voluntary guidelines or nutrient and food criteria defined by the state: Australian Capital Territory (2015), New South Wales (NSW) (2011), Northern Territory (2009), Queensland (2007), South Australia (2008) and Western Australia (2014). All of these states and territories identify 'red category' foods, which are either completely banned in schools or heavily restricted (e.g. offered no more than one or two times per term) [94]. The NSW policy for school canteens prohibits availability of 'red' foods, high in saturated fats, sugars, or sodium. Foods provided in school canteens should be at least 50% 'green' foods to ensure that canteens do not increase the number of 'amber' foods. 'Green' foods include low-fat carbohydrates, fruits and vegetables, and lean meat as well as small portions of pure fruit juice. Also, Queensland's Smart Choices school nutrition standards ensure that 'red' foods and drinks are eliminated across the whole school environment.
- **Chile**: In 2012, the Chilean government approved a Law of Nutritional Composition of Food and Advertising (Ley 20, 606) [52]. In June 2015, the Chilean authority approved the regulatory norms required for the law's implementation (Diario Oficial No 41.193). The regulatory norms define limits for calories (275 calories/100g or 70 calories/100mL), saturated fat (4g/100g or 3g/100mL), sugar (10g/100g or 5g/100mL) and sodium (400mg/100g or 100mg/100mL) content considered 'high' in foods and beverages. The law prohibits the sale of foods in the 'high in' category in schools. These were scheduled to take effect 1 July 2016 [94].
- **Finland**: In 2008, the National Nutrition Council approved nutrition recommendations for school meals. These include food and nutrient recommendations for salt, fibre, fat, starch, fat and salt maximums for meat and processed meat, and drinks. There are also criteria for snacks provided in schools [94].
- **Mauritus**: In 2009, a regulation was passed banning soft drinks, including diet soft drinks, and unhealthy snacks from canteens of pre-elementary, elementary and secondary schools [94].
- **UK**: England, Scotland, Wales and Northern Ireland have mandatory nutritional standards for school food, which also apply to food provided in schools other than school lunches. These standards apply to most state schools (with the exception of around 4,000 academies established between September 2010 and June 2014, which are exempt) and restrict foods high in fat, salt and sugar, as well as low quality reformed or reconstituted foods [94].
- **Brazil**: The national school feeding programme [95] places great emphasis on the availability of fresh, traditional and minimally processed foods. It mandates a weekly minimum of fruits and vegetables, regulates sodium content and restricts the availability of sweets in school meals. A school food procurement law [96], approved in 2001, limits the amount of processed foods purchased by schools to

30%, and bans the procurement of drinks with low nutritional value, such as sugary drinks. The law requires schools to buy locally grown or manufactured products, supporting small farmers and stimulating the local economy. Resolution no 38 (16 July 2009) sets food- and nutrition-based standards for the foods available in the national school meal programme (Law 11.947/2009).

Article 17 prohibits drinks of low nutritional value (e.g. soda), canned meats, confectionary and processed foods with a sodium and saturated fat content higher than a specified threshold.

- **Costa Rica**: Executive Decree No 36910-MEP-S (2012) of the Costa Rican Ministries of Health and Education sets restrictions on products sold to students in elementary and high schools, including food with high levels of fats, sugars and salt, such as chips, cookies, candy and carbonated sodas. Schools are only permitted to sell food and beverages that meet specific nutritional criteria. The restrictions were upheld by the Constitutional Court in 2012 following a challenge by the food industry [94].
- **Hungary:** Since 2012, food and beverages subject to the public health product tax may not be sold on school premises or at events organized for school children, including out of school events based on the Ministerial Decree 20/2012 (VIII.31) on the Operation of Public Education Institutions and the Use of Names of Public Education Institutions. Section 130(2) of the Decree requires the head of the educational institution to consult the school health service prior to entering into agreements with vending machine operators or food vending businesses. The school health service verifies whether the products to be sold meet the nutritional guidelines set by the National Institute of Pharmacy and Nutrition. Products that do not comply are prohibited [94].
- **Uruguay**: In September 2013, the government of Uruguay adopted Law No 19.140 on 'healthy eating in schools'. It mandated the Ministry of Health to develop standards for food available in canteens and kiosks in schools, prohibited advertising for these same foods and restricted the availability of salt shakers. The school food standards were elaborated in March 2014 in two further documents: Regulatory Decree 60/014 and the National Plan of Health Promoting Schools. The standards aimed to promote foods with natural nutritional value with a minimum degree of processing and to limit the intake of free sugars, saturated fat, *trans* fat and sodium. Limits are set per 100g of food, 100ml for drinks and also per 50g portion. Prohibited foods include sugary beverages and energy drinks, confectionery, salty snacks, cakes and chocolate. The school food standards and restrictions on advertising began to be implemented in public schools in 2015 and are being monitored for compliance [94].

5 FOOD PROVISION: The government ensures that there are healthy food service policies implemented in government-funded settings to ensure that food provision encourages healthy food choices, and the government actively encourages and supports private companies to implement similar policies.

PROV2: The government ensures that there are clear, consistent policies in other public sector settings for food service activities (canteens, food at events, fundraising, promotions, vending machines, public procurement standards etc.) to provide and promote healthy food choices.

Evidence of implementation

- Childhood Obesity Plan: DHB Healthy food policies. All DHBs made a commitment to remove sugar-sweetened beverages from their campuses by Jan 2016 [97]: A National Healthy Food and Drink Policy was developed in 2016 by the DHB Healthy Food and Drink Environments Network – a group of nutrition, dietetic, food service, and/or public health representatives from all DHBs, along with the MoH [98]. The MoH has adopted the Policy and it is available for individual DHBs to consider adopting. The policy will be implemented in DHBs and the Ministry over a 2-year period. The Network will continue to support DHBs and the Ministry during this period and undertake a review of the Policy in 2019. The MoH has adopted, and is implementing the Policy (personal communication, MoH, 2017). A similar policy appropriate for adoption by other organisations and workplaces has also been developed – Healthy Food and Drink Policy for Organisations [99]. Prior to the introduction of the policies, a number of DHBs had healthy eating guidelines in place. The Heart Foundation, Auckland University and Activity and Nutrition Aotearoa (ANA) provided technical and nutrition advice for the National Healthy Food and

Drink Policy. A monitoring tool has been developed and is being trialled within some DHBs prior to being finalised.

- Further information from District Health Boards (DHBs) on the implementation of the National Healthy Food and Drink Policy indicated some DHBs already had an existing policy in place, five are considering whether to align their existing policy with the national policy, two are remaining with the policy already in place, one will align the current policy with the national policy and another is currently implementing the policy. Two have indicated they have implemented the policy with six having approved the Policy but waiting for adoption subject to agreement by the NZ Resident Doctors' Association (official information act requests DHB, MoH, 2017). Many of the DHBs commented that they had an implementation group and some were undertaking audits of the food environment within DHB food outlets, including vending machines. Some DHBs were jointly implementing the policy across a number of DHBs.
- The Department of Corrections states that meals provided to prisoners are in line with the Eating and Activity Guidelines set by the MoH. The Department's prison operations manual sets out performance standards surrounding catering, menus and responsibilities relating to prisoners with health issues, such as diabetes. Prison Operations Manual [100]: F.01.Res.01 Catering. Performance standard 1: Each prisoner is provided with a diet based on Ministry of Health (MoH) Food and Nutrition Guidelines. In 2008-2009 Regional Public Health Wellington undertook a review of the Corrections menu[101], following a request from the Department of Corrections, to assess whether prison menus meets the minimum nutritional requirements set out by the Ministry of Health. It was found that overall, these menus provide an adequate variety of food in appropriate amounts for both males and females. Energy intake would be suitable to meet the needs of sedentary prisoners. The overall recommendations for further improvements to the menu to ensure nutrient adequacy are listed in the report [101]. A media release (June 2015) [102] reported that the last review was in 2009 and no changes would take place to prison food.
- All rest homes and aged residential care facilities are certified and audited to ensure they provide safe, appropriate care for their residents and meet the standards set out in the Health and Disability Services (Safety) Act 2001 [103]. Health and Disability Services Standards 2008. NZS 8134.1.3.13 [104] A consumer's individual food, fluids and nutritional needs are met where this service is a component of service delivery. Overall, there are 50 standards and 101 criteria within the standards that can be used for the audits. It is stated that food, fluid and nutritional needs of consumers are provided in line with recognized nutritional guidelines appropriate for the consumer group.
- There are a number of websites that provide information on healthy eating for the public. The Health Promotion Agency launched MyFamily platform in 2014/15 to support and assist families to make healthy food choices, and to support the sector with tools and resources to promote water [105]. Toi Te Ora have a website: (www.hapuhauora.health.nz) [106] to provide ideas for making the healthy choice the easy choice at the marae and in the home.
- Some local government authorities have developed policies relating to the availability of healthy drinks. Auckland Council have removed sugary drinks from vending machines in the 21 leisure centres [107]. Nelson City Council has a sugar sweetened beverages policy which supports healthy beverages at council workplaces [108].

International best practice examples (benchmarks)

- **Latvia**: In 2012, the government set salt levels for all foods served in hospitals and long-term social care institutions. Levels may not exceed 1.25g of salt/100g; fish products may contain up to 1.5g salt/100g [94].
- **Bermuda**: In 2008, the Government Vending Machine Policy was implemented in government offices and facilities to ensure access to healthy snacks and beverages for staff. The policy requires that all food and beverages in vending machines on government premises meet specific criteria based on levels of total fat, saturated fat, *trans* fat, sodium and sugar. Criteria exclude nuts and 100% fruit juices [94].
- **New York**: New York City's Food Standards (enacted with Executive Order 122 of 2008) set nutritional standards for all food purchased or served by city agencies, which applies to prisons, hospitals and senior care centres. The Standards include: maximum and minimum levels of nutrients per serving; standards on specific food items (e.g. only no-fat or 1% fat milk); portion size requirements; the requirement that water be offered with food; a prohibition on the deep-frying of foods; and daily calorie

and nutrient targets, including population-specific guidelines (e.g. children, seniors) [94, 109]. As of 2015, 11 city agencies are subject to the NYC Food Standards, serving and selling almost 250 million meals a year. The Food Policy Coordinator has the responsibility of ensuring adherence with the Food Standards. Self-reported compliance with the standard is 96%.

- **Wales**: Vending machines are prohibited in National Health Service Hospitals. The government issued a guidance defining what is allowed and not, and has liaised with major vending providers to find ways to introduce healthier food options (Health Promoting Hospital Vending Directions and Guide 2008).
- **UK**: The UK Government Buying Standard for Food and Catering Services (GBSF of 2014, updated March 2015) by the Department of Environment, Food and Rural Affairs, sets out standards for the public sector when buying food and catering services. It is supported by the Plan for Public Procurement: Food and Catering Services (2014), which includes a toolkit consistent with the mandatory GBSF, a balanced scorecard, an e-marketplace, case studies and access to centralised framework contacts in order to improve and facilitate procurement in the public sector. The nutrition requirements must be followed by schools, hospitals, care homes, communities and the armed forces. To improve diets, the GBSF sets maximum levels for sugar in cereals and generally for saturated fat and salt, in addition to minimum content of fibre in cereals and fruit in desserts. Meal deals have to include vegetables, fruit as dessert and menu fish on a regular basis [62].

5 FOOD PROVISION: The government ensures that there are healthy food service policies implemented in government-funded settings to ensure that food provision encourages healthy food choices, and the government actively encourages and supports private companies to implement similar policies.

PROV3: The government ensures that there are good support and training systems to help schools and other public sector organisations and their caterers meet the healthy food service policies and guidelines.

Evidence of implementation

Support and training systems for schools and early childhood education (ECE) services

- The Ministry of Education has developed resources [110] in consultation with the MoH to assist schools and ECE services in their focus on this area: 'Food and Nutrition for Healthy Confident Kids' guidelines (2007) [67] and 'Food and Nutrition for Healthy Confident Kids' toolkit containing some resources to support the guidelines. These guidelines are supported by the MoH's food and beverage classification system. These have not been updated by MoH since 2007 but are still available for use. The 'Food and Nutrition for Healthy Confident Kids' guidelines are still very much used by schools and considered the key nutrition source for schools (statement from the Ministry of Education).
- Fuelled4Life is the Food and Beverage Classification System managed by the Heart Foundation on contract from MoH and is a collaborative initiative that involves the education, health and food industry sectors working together to make it easier to have healthier food in schools and early childhood education (ECE) services in NZ. This is voluntary [111, 112]. The guidelines were updated in March 2016 and are more strict (personal communication, Heart Foundation, 2017).
- The product/company registration scheme (which includes the Buyer's Guide) was fully disestablished in 2016, firstly in early learning services and then schools. The Buyer's Guide for Early Learning Services was stopped in 2014, due to a stronger demand for recipes and tools to help with menu planning and food preparation rather than product purchasing. The 2015 evaluation of Fuelled4life in schools found canteen-specific tools and resources, recipes and catering information more useful than the Buyers' Guide. Now, Fuelled4life does not signpost registered products as 'everyday' or 'sometimes'. Along with tools and resources, the nutrient criteria continue to underpin the FBCS to identify healthier choices according to nutrient profile ('everyday' and 'sometimes'), when selecting foods and drinks for catered meals, tuck shops and canteens, vending machines, sponsorship deals, fundraisers and other special events. The evaluation found a strong demand for more intensive and customised support for canteens which is supported by the Heart Foundation regional staff who work directly with schools. Fuelled4life now focuses efforts on schools while continuing to support early learning services. Parents of children aged 0-5 have support for healthier eating through existing communication channels already developed for Fuelled4life such as the website and the Facebook page. 1684 schools and 2438 early learning

services are currently signed up to Fuelled4life, which is 65.7% of schools and 53.0% of early learning services. Stronger emphasis has been placed on fresh made foods, nutritional support provided to external school food suppliers and boarding school caterers. Ordering school lunches online is increasingly common with many schools now using online lunch programmes provided by external food suppliers. Fuelled4life supports food suppliers to make these fresh-made foods healthier by providing individualized nutritional support and advice. FBCS has been used as criteria for menu and recipe assessment. A total of six companies met the criteria and signed up with Fuelled4life by the end of 2016, supplying food into 210 schools in Auckland, Wellington, Christchurch, Waikato, Hawke's Bay and Taumarunui (personal communication, Heart Foundation, 2017).

- There are guidelines on the Ministry of Education's website for schools to develop policies relating to the food environment in their school [67].
- The Children's Commissioner published Guidelines for School Food Programmes in 2014: Best Practice Guidance For Your School (February 2014) [92].
- The Healthy Heart Award is an established, free programme coordinated by the Heart Foundation and partially funded by the MoH. It assists ECE services to create an environment promoting healthy eating and physical activity to under 5s and their families. There are three award levels [113]. The Heart Foundation has several other resources available for schools and ECE services related to ECE menu development and school canteen menu development [114].
- Project Energize delivers the Heart Foundation programmes to schools and pre-schools (personal communication, Project Energize, 2017).
- The Heart Foundation have Pacific community nutrition courses: AUT Certificate of Proficiency in Pacific Nutrition; Pacific community nutrition course and a Pacific workforce nutrition course [115]
- HEART START Toitoi Manawa is a free curriculum-linked programme, partially funded by the MoH. It is offered to all schools across New Zealand. The programme fits with school's existing work and helps build a heart healthy environment [116].
- Food for Thought uses an inquiry based learning approach to help students (years 5-6) learn how to make healthy food choices [117]. Food for Thought is owned by Foodstuffs delivered by Heart Foundation regional staff to low decile schools throughout the country. It is a free nutrition education programme that assists Year 5 and 6 primary school students make healthier food and lifestyle choices. There are nutrition resources, teaching activities and supermarket visits. From June to December 2016, the programme reached 3522 children in 153 classrooms (year 5-6) of 56 schools, of which 93% of schools (n=52) were decile 1-4 (personal communication, Heart Foundation, 2017).
- HEAT (Healthy Eating Action and Training) is a nutrition training course, a level 3 unit standard qualification in nutrition available for food preparers offered by the Heart Foundation. The course is available as a standalone independent training module for prisons, secondary schools, aged care and DHBs. The course is ideal for chefs, caterers, teachers, menu planners, supervisors and students with an interest in catering. It forms part of the in-house training programme for Compass Catering. In addition to this, Service IQ (Industry Training Organisation), has updated the HEAT module and it forms the basis of their catering apprenticeship and hospitality training (personal communication, Heart Foundation, 2017).
- Health Promoting Schools (HPS) is an approach where the whole school community works together to address the health and wellbeing of students, staff and their community. The initiative is broader than nutrition only (e.g. sun-safe and smoke-free schools, kiwi sport, fruit in schools, 5+ A Day School Competition) and is funded by the MoH. The HPS National Strategic Framework supports school communities to identify and address their prioritised health needs and take actions that utilise their strengths and build capability. The framework empowers school communities to develop solutions for their own transformation in partnership with health, education and social services. The inquiry-based approach is outcomes focused and sustainable as it builds on what schools already do and integrates the actions and outcomes into schools' planning and reporting mechanisms. Schools are supported by advisors from public health units, district health boards or local government, who are contracted by the MoH to support HPS. In December 2013, 654 schools were participating with 474 decile 1-4 schools (out of 1016), and 37% of these schools engaged in HPS undertake nutrition-related work (information received through Janet Chen, Senior Portfolio Manager, MoH). By 2015/16, there was an increase in schools participating [118] with 1223 schools and 890 of these operating at the highest levels (2 & 3). Overall HPS delivers substantial benefits and outcomes to the broader school community with more

focus required on tools and resources to enable schools to take action and achieve impact. In 2016 HPS Levels of Inquiry were aligned with the ERO internal evaluation process. As part of the MoE Childhood Obesity Plan [97], HPS support will be expanded to 150 more decile 1-4 primary and intermediate schools and those with high Maori, Pasifika or vulnerable children over the next 2 years.

Support and training systems for other settings

- Heartbeat Challenge is a workplace health and wellbeing programme which focuses on strengthening the environment that supports and improves health for all employees. The programme framework enables and empowers employees to help drive the programme and contribute to the content. Emphasis is placed on encouraging environmental change within the workplace. Workplaces were supported by a Workplace Health Promoter to work towards a Heartbeat Challenge Award. Heartbeat Challenge was delivered by Auckland Regional Public Health Services (ARHPS) from 2003 and funded by the MoH [119]. Workplaces with 50+ staff, a high percentage of Maori and Pacific in the workforce and an average salary of <$55,000 could participate. Heartbeat Challenge finished in December 2016 with 123 workplaces (personal communication, ARPHS, 2017) and has been replaced with Good4Work.
- Good4work is a new national workplace health and wellbeing tool developed by a partnership of ARPHS, Toi Te Ora Public Health Unit, Health Promotion Agency (HPA) and Ministry of Health Healthy Families New Zealand. It is an online platform targeting small to medium businesses with an organisational culture focus on systems and processes of engagement. Healthy Families New Zealand locations can engage in Good4Work if it is a priority for their area. ARPHS strategic planning indicated that Good4Work was a more effective use of limited resources to reach more workplaces than Heartbeat Challenge (personal communication, ARPHS, 2017). A workplace health strategy vision is that workplaces will demonstrate commitment and ownership towards effective workplace wellbeing culture, supported by a systems approach that strengthens environments and reduces inequities. ARPHS will provide a set of nationally agreed best practice tools for workplace wellbeing with their partners, they plan to have a monitoring and response process for public policies, legislation and workplace issues, a core group of national and regional agencies supporting shared visions and mutual goals, tools and systems to collect data and champions to promote workplace wellbeing [120].
- The Ministry of Health has developed a Healthy Food and Drink Policy for Organisations [99] which aligns with the National Healthy Food and Drink Policy for DHBs (DHB Healthy Food and Drink Network). ARPHS are planning to develop some tools and supporting resources to help organisations implement the Healthy Food and Drink Policy for Organisations.
- There are currently 40 businesses enrolled in Workwell in the Toi Te Ora area covering a total of 9840 employees. Workwell targets businesses employing high numbers of Maori, Pacific and low skilled staff. Toi Te Ora is currently supporting 25 businesses committed to healthy eating to implement an action plan. There is a healthy eating toolkit which provides examples and support material (personal communication, Toi Te Ora, 2017).
- HPA have a Wellplace.nz website [121] with a range of healthy eating resources and links.
- The Heart Foundation have 'Guidelines for preparing healthier cafeteria food' and a Hospitality Hub with a lot of information about healthy food service. The Hospitality Hub is funded by the MoH [122].
- The ANA website has a number of Workplace Health guides produced by District Health Boards [123].
- Sport Northland has Active Workplace programme which supports workplaces to create healthier environments. The focus is on activity and workplaces can choose additional key focus areas like nutrition [124].

International best practice examples (benchmarks)

- **Australia**: The Healthy Eating Advisory Service supports settings such as childcare centres, schools, workplaces, health services, food outlets, parks and sporting centres to provide healthy foods and drinks to the public in line with Victorian Government policies and guidelines. The Healthy Eating Advisory Service is delivered by experienced nutritionists and dieticians at Nutrition Australia Victorian Division. The support includes training cooks, chefs, foods service and other key staff, discovering healthier recipes, food ideas and other helpful resources to provide healthier menus and products [125].
- **Japan**: In 2005, Basic Law on Shokuiku (in Japanese, 'Shoku' means diet, 'iku' means growth and education) was enacted and it was the first law that regulates one's diets and eating habits. It involved Cabinet Office as the leading office to plan, formulate and coordinate Shokuiku policy and strategy, in

collaboration with MoH, Labour and Welfare, Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Ministry of Agriculture, Forestry and Fisheries. The laws included several concepts, which are promotion of Shokuiku at home, schools or nursery schools and promotion of interaction between farm producers and consumers [126]. Dietitians are playing an important role to implement Shokuiku programs by providing guidance in various settings. In Japan, at least one dietitian should be assigned at the facility with mass food service of over 100 meals/time or over 250 meals/ day, whereas at least one registered dietitian is needed when it is over 500 meals/time or 1500 meals/day. In specific setting such as schools, the MEXT established the Diet and Nutrition Teacher System in 2007. The teachers are responsible to supervise school lunch programs, formulate menus and ensure hygiene standards in public elementary schools and junior high schools in accordance with the needs of local communities. They also deal with dietary education issues in collaboration with nutrition experts such as registered dietitians [127]. Under the revised School Lunch Act 2008, it included the School Lunch Practice Standard which stipulates proper school lunch including reference intake values of energy and each nutrient as per age group [128]. Moreover, it outlined costs of facilities and manpower (e.g. cooks) to be covered by municipalities and guardians only cover the cost of ingredients which amounts to an estimate of 4000 yen/month/student for the school lunch program [129].

5 FOOD PROVISION: The government ensures that there are healthy food service policies implemented in government-funded settings to ensure that food provision encourages healthy food choices, and the government actively encourages and supports private companies to implement similar policies.

PROV4: Government actively encourages and supports private companies to provide and promote healthy foods and meals in their workplaces.

Evidence of implementation

- The HPA guide to providing healthier beverage options for workplaces[130] explains how to improve the range of beverages supplied in vending machines, cafeterias and at staff functions available to staff in workplaces. They are designed to help gain the support of management and staff to improve the quality of available beverages as part of workplace health, safety and wellness responsibilities.
- The Ministry of Health has developed a Healthy Food and Drink Policy for Organisations which aligns with the National Healthy Food and Drink Policy for DHBs (DHB Healthy Food and Drink Network). ARPHS are planning to develop some tools and supporting resources to help organisations implement the Healthy Food and Drink Policy for Organisations [99].
- In New Zealand, local public health service units oversee the WorkWell programme, including a focus on healthy eating, and provide toolkits for companies to use. Under the WorkWell programme The Public Health Unit Toi Te Ora is currently working with 23 businesses that have identified healthy eating as a priority. Each of these businesses is currently implementing their relevant action plans. The smaller businesses have tended to opt for the development of a generic wellbeing policy rather than a specific healthy eating policy. Toi Te Ora provides support to the workplaces in the development on their healthy eating action plans, ensuring they consider actions across organisational, environmental and individual levels. There is a healthy eating toolkit which provides examples and support material. There are currently 41 businesses enrolled in Work well in that area covering a total of 11321 employees. WorkWell targets businesses employing high numbers of Maori, Pacific and low skilled staff (personal communication, Toi Te Ora, 2017).

International best practice examples (benchmarks)

- **Victoria (Australia**): 'Healthy choices: healthy eating policy and catering guide for workplaces' is a guideline for workplaces to support them in providing and promoting healthier foods options to their staff. The guideline is supported by the Healthy Eating Advisory Service that helps private sector

settings to implement such policies. Menu assessments and cook/caterer training are available free of charge to some eligible workplaces [131].

- **UK**: The UK responsibility deal included collective pledges on health at work, which set out the specific actions that partners agree to take in support of the core commitments. One of the pledges is on healthier staff restaurants, with 165 signatories to date [132].
- **Singapore**: The National Workplace Health Promotion Programme, launched in Singapore in 2000, is run by the Health Promotion Board. Both private and public institutions are encouraged to improve the workplace environment by providing tools and grants. Grants are awarded to help companies start and sustain health promotion programmes. Tools include a sample Healthy Workplace Nutrition Policy, a sample Healthy Workplace Catering Policy and a detailed Essential Guide to Workplace Health, setting out ways to transform the workplace into a health-supporting work environment [94].

6 FOOD RETAIL: The government has the power to implement policies and programs to support the availability of healthy foods and limit the availability of unhealthy foods in communities (outlet density and locations) and in-store (product placement).

RETAIL1: Zoning laws and policies are robust enough and are being used, where needed, by local governments to place limits on the density or placement of quick serve restaurants or other outlets selling mainly unhealthy foods in communities.

Evidence of implementation

- Zones have a set of rules (e.g. permitted activity lists) that are reflective of their anticipated land use, so for a commercial zone retailing, commercial enterprises, takeaways etc. are all permitted activities that can be undertaken without need for Council consent. Permitted activities for each zone are set by the District Council through the District plans. Council does not regulate the type of commercial activity unless it is impacted by other regulations such as the Hazardous Substances legislation that limits the amount and type of some goods that can be stored. Council does have the ability to regulate other activities using bylaws / policies such as the Trading in Public Places Bylaw. This is primarily to regulate temporary mobile vendors to keep them out of commercial zones so they do not impact on the trading of the existing, lawfully established businesses.
- Historically, the public health role of the Councils focused on sanitation and food safety and the control of infectious diseases by having a healthy physical environment. However, the Health Act 1956 imposes on Councils a general duty to improve, promote and protect public health. Councils' bylaw making power is covered in the Local Government Act 2002. A territorial authority may make bylaws for its district for 1 or more of the following purposes: (b) protecting, promoting, and maintaining public health and safety. The four well-beings (social, economic, environmental and cultural) as a purpose of local government have recently been removed from the Local Government Act however.
- No NZ Council has specific rules for regulating the number and location of food outlets. If a Council was to develop a policy on this it would need to undertake a process using the Special Consultative Procedure under the Local Government Act 2002. Alternatively, there could be new 'takeaway' rules developed to be given effect through the District Plan which would require a Plan Change Process under the Resource Management Act 1991. Both involve considerable research and consultation. The real difference between the 2 processes is that Council's decisions on Plan Changes can be appealed to the Environment Court which can drag the process out considerably. Policy decisions developed under the Local Government Act can't be appealed but the process can be challenged to a Judicial Review to see if the process followed was sufficiently robust.
- A nationwide spatial analysis found 69% of urban and 14% of rural schools had a convenience store within 800 m; and 62.0% of urban and 9.5% of rural schools had a fast food or takeaway outlet (FFTC) within 800m [133]. Median road distance to the closest convenience store from urban schools was significantly higher for the least versus the most deprived schools; the opposite was found for rural schools. Median FFTC density was 2.4 (0.8–4.8) per km^2 and maximum density was 85 per km^2 within 800 m of urban schools. Median density of convenience stores around the least deprived urban schools was significantly lower than around the most deprived schools (p<0.01).
- There is some advocacy work at a local/regional level. The Childhood Obesity Plan background information [134] described: Healthy Auckland Together l for changes to RMA to give Councils power to stop new dairies, convenience stores and takeaways from being opened. Wellington Regional Public Health Service recently submitted a similar recommendation on Wellington City Council's long-term plan to review food retail zoning conditions. Voluntary agreements on sales of food and drink by dairies or fast-food outlets to children on their way to and from school, or while in school uniform are in place in some schools in NZ. Christchurch City Council will look at ways to stop the proliferation of unhealthy fast food outlets near schools following deputations from community representatives. The Council will investigate the regulatory and non-regulatory options available to limit the location and impact, or prevent the establishment of unhealthy fast food outlets in close proximity to schools or other areas [135].
- An ANA Evidence Snapshot 'Promoting Healthy Eating at the Local Government Level' was published in March 2016 [108]

International best practice examples (benchmarks)

- **South Korea**: In 2010 the Special Act on Children's Dietary Life Safety Management established the creation of 'Green Food Zones' around schools, banning the sale of foods (fast food and soda) deemed unhealthy by the Food and Drug Administration of Korea within 200 metres of schools [66, 136]. In 2016, Green Food Zones existed at over 10000 schools.
- **Dublin (Ireland):** Fast-food takeaways will be banned from opening within 250 metres of schools, Dublin city councillors have ruled. The measure to enforce 'no-fry zones' will be included in a draft version of the council's six-year development plan. City planners will be obliged to refuse planning permission to fast food businesses if the move is formally adopted after public consultation [137].
- **US**: In Detroit, the zoning code prohibits the building of fast food restaurants within 500 ft. of all elementary, junior and senior high schools [19].
- **UK**: Around 15 local authorities have developed 'supplementary planning documents' on the development of hot food takeaways. The policies typically exclude hot food takeaways from a 400m zone around the target location (e.g. primary schools). For example, Barking and Dagenham's Local Borough Council, London, adopted a policy in 2010 restricting the clustering of hot food takeaways and banning them entirely from 400m exclusion zones around schools. In 2009, the Local Borough Council of Waltham Forest, London developed a planning policy in 2009 restricting the development of hot food takeaways in local centres, and excluding them completely from areas within 10min walks from schools, parks or other youth centres. St Helens Council adopted a planning document in 2011 and Halton in 2012 [19].

6 FOOD RETAIL: The government has the power to implement policies and programs to support the availability of healthy foods and limit the availability of unhealthy foods in communities (outlet density and locations) and in-store (product placement).

RETAIL2: Zoning laws and policies are robust enough and are being used, where needed, by local governments to encourage the availability of outlets selling fresh fruit and vegetables.

Evidence of implementation

- There are no zoning laws in existence to encourage the availability of outlets selling fresh fruit and vegetables in NZ.

International best practice examples (benchmarks)

- **US**: In February 2014, the US Congress formally established the Healthy Food Financing Initiative (following a three year pilot) which provides grants to states to provide financial and/or other types of assistance to attract healthier retail outlets to underserved areas. The pilot distributed over 140 million USD in grants to states to provide financial and other types of assistance to attract healthier retail outlets in underserved areas. To date, 23 US states have implemented financing initiatives [19]. For example, the New Jersey Food Access Initiative provides affordable loans and grants for costs associated with building new supermarkets, expanding existing facilities, and purchasing and installing new equipment for supermarkets offering a full selection of unprepared, unprocessed, healthy foods in under-served areas; the initiative targets both for-profit and not-for-profit organisations and food cooperatives.
- **New York**: The 'Green Cart Permit' was developed with reduced restrictions on zoning requirements to increase the availability of fresh fruits and vegetables in designated, underserved neighbourhoods[19]. In 2008 New York City made 1000 licences for green carts available to street vendors who exclusively sell fresh fruit and vegetables in neighbourhoods with limited access to healthy foods [19]. In addition, in 2009, New York City established the Food Retail Expansion to Support Health program of New York City (FRESH). Under the programme, financial and zoning incentives are offered to promote neighbourhood grocery stores offering fresh meat, fruit and vegetables in under-served communities. The financial benefits consist of an exemption or reduction of certain taxes. The zoning incentives

consist of providing additional floor area in mixed buildings, reducing the amount of required parking and permitting larger grocery stores in light manufacturing districts.

- **Scotland**: In 2004, a small group of suppliers and retailers in Scotland established a pilot project called Healthy Living Neighbourhood Shops to increase the availability of healthier food options throughout Scotland, in both deprived and affluent areas, where little or no option existed to buy. The programme received funding from the Scottish Executive and worked closely with the Scottish Grocers' Federation, which represents convenience stores throughout Scotland. Through a number of different trials, the programme established clear criteria for increasing sales and also developed bespoke equipment/point of sale (POS) materials which were given to participating retailers free of charge. This has led to around 600 convenience stores across Scotland improving their range, quality and stock of fresh fruit and vegetables and other healthier eating products [138].

6 FOOD RETAIL: The government has the power to implement policies and programs to support the availability of healthy foods and limit the availability of unhealthy foods in communities (outlet density and locations) and in-store (product placement).

RETAIL3: The Government ensures existing support systems are in place to encourage food stores to promote the in-store availability of healthy foods and to limit the in-store availability of unhealthy foods.

Evidence of implementation

- There are some local examples of food stores promoting healthy foods. The 'Tap into Water' project in Taranaki had worked with two retailers who no longer sell sugar sweetened beverages to children on their way to school in the morning [139]. In 2016 nine retailers in Dunedin joined WellSouth's Everyday Food Retail Network to increase marketing of foods and beverages we would be better off eating every day [140].
- ANA Evidence snapshot case studies March 2016 [108]: Establishing a food policy council, Toi Te Ora, Nelson City Council sugar sweetened beverage policy.
- There are some local examples of organisations working to make healthier foods more accessible. The Fruit and Vegetable Co-op in Canterbury began in October 2011 to enable people to buy affordable seasonal fresh fruit and vegetables. The Co-op was established as a partnership between Community and Public Health, the Christchurch Cathedral and communities. The co-op was supported by the DHB until the end of 2015 (personal communication, Community & Public Health, 2017). The Co-op is now called Foodtogether and operates as a stand-alone social enterprise supported by the Healthy Life Trust formed in 2014 [141]. There are over 3500 packs sold weekly. The establishment in (2014) and running of the Fruit and Vegetable Co-operatives around the Wellington region works under three way partnerships established between existing community organisations, Regional Public Health and a social sector non-governmental organisation (Wesley Community Action). Regional Public Health's support has been principally through time, promotion and small start up grants. There are currently 9 packing hubs and approximately 30 distribution centres. The co-ops run on a non-charity model with fruit and vegetables being ordered and pre-paid for by co-op members. Currently over 1000 orders are placed each week.

International best practice examples (benchmarks)

- **US:** The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) requires WIC authorised stores to stock certain healthier products (e.g. wholegrain bread) [70].

6 FOOD RETAIL: The government has the power to implement policies and programs to support the availability of healthy foods and limit the availability of unhealthy foods in communities (outlet density and locations) and in-store (product placement).

RETAIL4: The government ensures existing support systems are in place to encourage food service outlets to increase the promotion and availability of healthy foods and to decrease the promotion and availability of unhealthy foods.

Evidence of implementation

- The Heart Foundation Hospitality initiatives are supported through funding by the Ministry of Health. The Heart Foundation Hospitality Hub provides information for food preparers for: creating healthy recipes, writing a healthy menu [122]. The Heart Foundation new initiative Kids' Choice' [54], supports cafes, restaurants and bars that want to serve healthier food to children through provision of guidelines, a recipe audit and highlighting healthy items on the menu.

International best practice examples (benchmarks)

- **Singapore**: 'Healthier Hawker' program involved the government working in partnership with the Hawker's Association to support food vendors to offer healthier options such as reduced saturated fat cooking oil and wholegrain noodles and rice, reduced salt soy sauce and increased vegetable content. As part of the 'Healthier Dining Programme' launched in June 2014 (formerly called the 'Healthier Hawker' programme launched in 2011), food operators are encouraged to offer lower calorie meals and use healthier ingredients such as oils with reduced fat content, and/or whole grains without compromising taste and accessibility. To participate, food and beverage companies must complete an application form and implement nutrition guidelines set by the Health Promotion Board (HPB) in all outlets for a period of two years. Following HPB's approval the 'Healthier Choice Symbol Identifiers' can be used next to the healthier dishes in all menu and marketing materials (e.g. 'We serve lower-calorie options', 'We use healthier oil'). To date, the HPB has partnered with 45 widely known food service providers (food courts, coffee shops, restaurants) to offer lower calorie and healthier meals across 1500 outlets and stalls. Between the launch of the programme and September 2015, the number of healthier meals sold more than doubled, from 525000 in June 2014 to 1.1 million in September 2015.
- **US**: In December 2011, San Francisco implemented the Health Food Incentives Ordinance which bans restaurants, including takeaway restaurants, to give away toys and other free incentive items with children's meals unless the meals meet nutritional standards as set out in the Ordinance: meals must not contain more than 600 calories, 640mg sodium, 0.5g *trans* fat, 35% total calories from fat and 10% calories from saturated fat and include a minimum amount of fruits and vegetables, while single food items and beverages must have <35% total calories from fat and <10% of calories from added caloric sweeteners. Incentives are defined as physical and digital items that appeal to children and teenagers as well as coupons, vouchers or similar which allow access to these items. In 2010 Santa Clara county, California banned restaurants from providing toys or other incentives with menu items high in calories, sodium, fat or sugars. The law (Ordinance No NS300-820) sets nutrition standards prohibiting restaurants from linking toys or other incentives with single food items or meals with excessive calories (more than 200 for single food items and more than 485 calories for meals), excessive sodium (more than 480mg for single food item and more than 600mg for a meal), excessive fat (more than 35% for total fat), excessive saturated fat (>10%) and sugar (more than 10% total calories from caloric sweeteners) or more than 0.5g of *trans* fats. It also applies to drinks with excessive calories (more than 120 calories) and fat (more than 35% from fat) and excessive sugars (more than 10% from caloric sweeteners) added non-nutritive sweeteners or caffeine [62].
- **France**: Since January 2017, France has banned unlimited offers of sweetened beverages for free or at a fixed price in public restaurants and other facilities accommodating or receiving children under the age of 18. Sweetened beverages are defined as any drink sweetened with sugar or artificial (caloric and non-caloric) sweeteners , including flavoured carbonated and still beverages, fruit syrups, sport and energy drinks, fruit and vegetable nectars, fruit- and vegetable-based drinks, as well as water- milk- or cereal-based beverages [19].

7 FOOD TRADE AND INVESTMENT: The government ensures that trade and investment agreements protect food sovereignty, favour healthy food environments, are linked with domestic health and agricultural policies in ways that are consistent with health objectives, and do not promote unhealthy food environments.

TRADE1: The direct and indirect impacts of international trade and investment agreements on food environments and population nutrition and health are assessed and considered.

Evidence of implementation

- A list of all New Zealand's trade agreements (both in force and under negotiation) can be found online [142]. Trade agreements between two or more countries can be known as either a Free Trade Agreement (FTA), Closer Economic Partnership (CEP) or Strategic Economic Partnership (SEP). International trade accounts for around two-thirds of New Zealand's total economic activity. The site includes useful information on each of the agreements, including form of the agreement, countries involved and time since entry into force. Trade agreements often cover: Trade in Goods (Market Access, Rules of Origin, Customs Procedures, Chapters on institutional and legal matters, Trade Remedies, Sanitary and Phytosanitary Measures, Technical Barriers to Trade), Trade in Services (Market Access, Movement of Natural Persons), Investment, Intellectual Property, Government Procurement, Competition and Consumer Policy, Cooperation, Trade and Labour and Trade and Environment. On the site the full text of each concluded agreement can be found, as well as the National Interest Analysis for each agreement[142]. Both the statement of intent 2013-2016 [143] and the annual report [144] of the Ministry of Foreign Affairs and Trade (MFAT) do not include any assessment of the impact of trade agreements on food environments, population nutrition or national nutrition and health policies. For the trade agreements in force, a search for the key words 'nutrition', and 'food' in the text of the agreement as well as any national interest analysis for the agreement did not deliver any relevant results. We found no evidence available from public sources from the MFAT, MoH, MPI, the Ministry of Business, Innovation and Employment (MBIE), treasury or other relevant government agencies that potential impacts on nutrition and health are assessed in the negotiation of agreements (other than relying on the standard World Trade Organisation (WTO) clauses which have a very high bar for evidence of negative impacts on health).
- Information on stated purposes of legislative proposals relating to food was sought from examining the Food Bill, introduced in 2010. This states among other things that the purpose of the act is to achieve the safety and suitability of food for sale and provide for risk-based measures that minimise and manage risks to public health; and protect and promote public's health (clause 4). While a reference to protecting and promoting public health is positive, there is little in the act that would implement this aspect of the Act's purpose in a broad way going beyond traditional food safety concerns. For instance, the Bill states the primary duty of persons who trade in food is to 'ensure that it is safe and suitable'. Concepts of safe and suitable are defined in the Bill, but in rather limited ways [145].

International best practice examples (benchmarks)

- **US/EU**: It is mandatory in the US and countries of the EU to undertake Environmental Impact Assessments for all new trade agreements. These assessments sometimes incorporate Health Impact Assessments [146].

7 FOOD TRADE AND INVESTMENT: The government ensures that trade and investment agreements protect food sovereignty, favour healthy food environments, are linked with domestic health and agricultural policies in ways that are consistent with health objectives, and do not promote unhealthy food environments.

TRADE2: The government adopts measures to manage investment and protect their regulatory capacity with respect to public health nutrition.

Evidence of implementation

- International investment agreements have the potential to restrict a country's regulatory capacity with respect to public health nutrition. A range of proactive measures have been proposed to manage investment and protect public health nutrition regulatory capacity. For NZ it is uncertain whether trade negotiations include evaluation on whether granting incentives that lower production costs may jeopardize public health by making unhealthy products more affordable. There is no assurance that investment contracts do not tie the hands of regulators in ways likely to undermine health. There is no introduction of a clarification that a foreign investor cannot legitimately expect the host country not to issue nutrition measures and no clarification of terms and general exceptions and the meaning of indirect expropriation and of fair and equitable treatment.

International best practice examples (benchmarks)

- **Many countries**: Sanitary and phytosanitary (SPS) clauses in WTO agreements. However, this usually does not apply to public health nutrition.
- **Ghana**: Ghana has set standards to limit the level of fats in beef, pork, mutton and poultry in response to rising imports of low quality meat following liberalization of trade. The relevant standards establish maximum percentage fat content for de-boned carcasses/cuts for beef (<25%), pork (<25%) and mutton (<25% or <30% where back fat is not removed), and maximum percentage fat content for dressed poultry and/or poultry parts (<15%) [147].

Food Environment Policy Index: INFRASTRUCTURE SUPPORT domains

8 LEADERSHIP: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

LEAD1: There is strong, visible, political support (at the Head of State / Cabinet level) for improving food environments, population nutrition, diet-related NCDs and their related inequalities.

Evidence of implementation

- The New Zealand government adopted the voluntary global non-communicable diseases (NCDs) action plan from the World Health Organisation, including 9 targets and 25 indicators for reducing premature mortality due to NCDs by 25% by 2025 (personal communication, Ministry of Health, 2017).

Strategic Plans, Ministry of Health

- The Statements of Intent of the MoH are available online and provided on a yearly basis. In the publications between 2011 and 2013 nutrition was not mentioned [148] and nutrition/obesity was not part of the 2013/2014 health targets [149]. In the 2012/13-2014/15 Statement of Intent, the only item mentioned is under impact 7 'The public is supported to manage their health and maintain their independence' and states 'develop policy options for incentives for self-care, healthy lifestyles and responsible use of health services; and provide operational policy and technical advice on nutrition and physical issues'. The only preventative measures covered were: increasing immunisation, better support for youth mental health services and more smoking reduction programmes [148].
- Between 2014 and 2016 there was more focus on nutrition in the Statements of Intent, and the raising healthy kids target was introduced after the 2015-19 Statement of Intent [150] was written. In 2013-16 [151], under Strategic Direction, the plan states the Ministry will also focus on prevention by ensuring that nutrition recommendations for NZ health practitioners and consumers has a sound evidence base. Impact 1 'The public are supported to make informed decisions about their own health and independence' includes 'continue to publish and support healthy lifestyles, such as healthy eating (food and nutrition guidelines)', 'support New Zealanders to maintain a healthy weight'.
- The 2013-16 [151] and 2014-18 [152] Statements of Intent acknowledge that NCDs pose challenges. The 2014-18 and 2015-19 [150] Statements of Intent acknowledge that obesity rates continue to worsen. The strategic priorities start with 'maintain wellness for longer by improving prevention'. This approach includes programmes that promote healthier lifestyles such as promoting good nutrition (such as the new Healthy Families NZ pilot in the 2014-18 plan). In the 2015-19 [150] Statement of Intent, the Ministry's strategic direction includes reduce obesity and the Childhood Obesity Plan as a new strategic priority. 'Addressing childhood obesity is a complex policy issue; there is no single cause or solution, and as yet there is no scientific consensus on potential impacts. Any solution will require a multifaceted cross government approach, involving a range of interventions'. 'The Ministry is leading the development of advice and options to address childhood obesity; it will provide this advice during 2015'. Impact 2. 'Health and disability services are closely integrated with other social services and health hazards are minimized.' 'Relevant ministerial priorities include childhood obesity with this being achieved by developing a national plan to address childhood obesity.'
- The Health and Independence Report (the Director-General of Health's Annual Report on the State of Public Health) provides an overview of the current state of public health in three main sections: health status, factors that influence New Zealanders' health and health system performance. The 2015 Health and Independence Report [153] recognised that poor diet accounts for one in every nine years of life lost and that rates of obesity have increased. The 2014 Report mentions Healthy Families NZ while both the 2013 and 2014 reports [154] [155]) had a section relating obesity and poor diet to a range of health outcomes.

- One of the actions in the NZ Health Strategy Roadmap [156] under 'Tackle long-term conditions and obesity' is related to prevention: 'Implement and monitor a package of initiatives to prevent and manage obesity in children and young people up to 18 years of age'. Another related action under 'A great start for children, families and whanau' is 'Promote healthy nutrition and activity for pregnant women and children to reduce the prevalence of childhood and adult obesity'.
- The NZ Health Strategy 2016 [157] has five-year signposts including '8h Obesity reduction initiative'.
- The NZ Healthy Ageing Strategy 2016 [158] has two priorities that focus on prevention and NCDs. Under the priority 'Ageing well': 'Older people are physically, mentally and socially active, have healthy lifestyles and greater resilience with good nutrition provided as an example of healthy behaviours'. One of the actions is to encourage services and providers to promote healthy eating, physical activity and healthy lifestyles which is to be implemented in the first two years of the strategy with lead partners listed as DHBs, health organisations, NGOs and the Nutrition Foundation. Under the priority 'Living well with long-term conditions' (diabetes, obesity, CVD etc.) there is a need to provide information on the importance of healthy lifestyles.

Strategic Plans, Health Promotion Agency

- The Health Promotion Agency (HPA) has an overall function to lead and support activities to: promote health and wellbeing and encourage healthy lifestyles, prevent disease, illness and injury, enable environments which support health, wellbeing and healthy lifestyles, and reduce personal, social and economic harm. The HPA undertakes work on a wide range of health issues, including: alcohol, gambling harm, health education, immunisation, mental health, nutrition and physical activity, sun safety and tobacco [159]. In the 2013-16 Statement of Intent nutrition was not featured as a priority. In the Statement of Intent for 2014-18 [160] HPA has an overall function to lead and support activities to promote health and wellbeing including supportive environments. Nutrition is one of the core topics. HPA contributes to Government work programmes such as Healthy Families NZ. Strategic Objective 1 is: 'New Zealanders experience better health and wellbeing, and less harm and injury'. A nutrition indicator is: 'increase in the proportion of New Zealanders choosing healthier food options'. The baseline data collection was the 2014 Health and Lifestyles Survey. The target will be reported in annual reports.
- In the HPA Statement of Performance Expectations 2015/16 [161] nutrition is a major issue. Activities include: HPA supports the Health Star Rating (HSR) nutrition labelling programme through a consumer marketing and education campaign 2015/16, will develop an achievement programme for Healthy Families NZ during 2015 providing a common framework for evidence-based acting in community settings, and will provide data on reach and impact of settings-based health promotion initiatives across Healthy Families NZ communities. HPA will promote the 2015 Eating and Activity Guidelines to the public and health professionals. Performance indicators are related to supporting dissemination of guidelines and aligning with government priorities including prevention of childhood obesity and Healthy Families NZ.

Media releases

- Media releases [162] and news items [163] from the MoH were investigated for the period 2014 (from 01/04/2014) to 2017 (until 01/04/2017). Of the 74 media releases from the MoH [162] 1 was on encouraging schools to adopt water only policies and 1 on the Childhood Obesity Plan. Of the 100 news items published by the MoH [163] from 2014 there were 6 related to NZ Health Survey results, 4 related to the Childhood Obesity Plan, 1 on analysis of health impacts of TPPA, 1 on a submission to WHO on inappropriate promotion of foods for infants and young children, 1 on tips on healthy eating during the summer break and 1 on fluoridation. On the government website www.beehive.govt.nz, a search for the key word 'nutrition' had 72 items with 18 relevant from 1 April 2014 to March 2017 relating to HSR, food labelling, Childhood Obesity Plan, Eating and Activity Guidelines, Healthy Families NZ, Project Energize, slow obesity cycle (pregnancy), pre-diabetes nutrition and activity programme Auckland. A search for the key word 'obesity' had 90 items with 32 relevant relating to Childhood Obesity Plan, Healthy Families NZ, Fruit in Schools, Eating and Activity Guidelines, Health Star Rating, science challenges. On the website of Health Minister Tony Ryall [164], speeches, releases, features and newsletters were searched for the period 1/4/2014 until Oct 2014 (Tony Ryall left Parliament). There were 76 items with 6

relevant: HRC funding announced, programmes to slow obesity cycle, Sir Peter Gluckman appointed to WHO commission, extra support for Aucklanders with pre-diabetes, Healthy Families New Zealand. The website of Health Minister Hon Dr Jonathan Coleman [165] (from Oct 2014) was searched for newsletters. Of the 10 newsletters one mentioned childhood obesity; however, these short newsletters also featured sport and recreation and electorate news as well as health. The press releases on the website were only for 2016 so Jonathan Coleman's press releases, speeches and features on the beehive website were searched. Of the 417 releases from 1/10 2014 to end of 30/3/2017, 39 mentioned population nutrition and prevention NCDs obesity: Health targets (4), Health Star Ratings (1), Childhood Obesity Plan (3), Healthy Families NZ (8), Fruit in Schools (5), Green Prescriptions (4), Project Energize (1), fluoridation (1), physical activity (3), health research (1), prevention diabetes (2), health strategy (1), other (3), Health Promoting Schools (1), weight management guidance (1).

- Between 2012 to 2014 (01/04), of the 60 media releases by the MoH [162], six were related to nutrition. Of the 66 news items published by the MoH, 2 were related to nutrition [163]. On the 365 items posted on the website of Health Minister Tony Ryall [164] there were 16 related to nutrition and obesity. A search for the key words 'nutrition' and 'obesity' on the government website www.beehive.govt.nz resulted in 78 items with 21 considered relevant.

Other

- As part of the theme of the work of the Office of the Auditor General Office in 2012/13 – Our future needs – is the public sector ready? –a performance audit to understand the public sector's approach to combating child obesity was carried out [166]. It was found that the Ministry of Education and Sport New Zealand no longer focused on obesity to the extent they had in the past. The Childhood Obesity Plan was announced in October 2015. The New Zealand government announced the Healthy Families New Zealand programme in May 2014. This is a community-based programme in 10 more deprived communities in New Zealand. Healthy Families New Zealand will support local leaders to implement voluntary initiatives that encourage families to live healthy, active lives. See leadership 5.
- The Public Health Bill was discharged in November 2015 [167]. The bill included new guideline provisions aimed at reducing risks of NCDs. Last year Parliament passed the Health (Protection) Amendment Act 2016 to improve the management of communicable diseases and the use of solaria. [168].

International best practice examples (benchmarks)

- **New York**: As Mayor of New York City, Michael Bloomberg prioritised food policy and introduced a number of ground breaking policy initiatives including 'Health Bucks', a restriction on *trans* fats, establishment of an obesity taskforce, a portion size restriction on sugar-sweetened beverages, public awareness campaigns, etc. He showed strong and consistent leadership and a commitment to innovative approaches and cross-sectorial collaboration [169].
- **Brazil**: The Minister of Health showed leadership in developing new dietary guidelines that are drastically different from the majority of dietary guidelines created by any nation to date, and align with some of the most commonly cited recommendations for healthy eating [170].
- **Caricom Countries**: Active NCD commissions exist in six of the 20 CARICOM member states (Bahamas, Barbados, Bermuda, British Virgin Islands, Dominica, Grenada) which are all housed in their Ministries of Health, with members recommended by the Minister of Health and appointed by the Cabinet of Government for a fixed duration; all include government agencies and to a varying degree, civil society and the private sector.

8 LEADERSHIP: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

LEAD2: Clear population intake targets have been established by the government for the nutrients of concern to meet WHO and national recommended dietary intake levels.

Evidence of implementation

- There are no intake targets specified by the Ministry of Health (MoH) or the Ministry for Primary Industries (MPI) for the nutrients of concern.
- New Zealand adopted the voluntary NCD action plan and global monitoring framework of the WHO in May 2013, including a target to reduce population salt intake to 5 g of salt per person per day. The MoH is progressing actions supporting the NCD resolution. These include voluntary product reformulation by industry across the food supply and public awareness / education regarding salt intake. The Ministry has been reporting to the WHO in 2016. The Ministry will continue to work with key stakeholders and partners, and support effective strategies and actions to address the burden of NCDs in New Zealand (personal communication, MoH, 2017).
- Although these don't count as targets, there are recommendations for an adequate intake, suggested dietary target and upper level of intake for sodium, including some recommendations and advice for the public to decrease sodium intakes [171-176]. Adequate intake and upper level of intake for fats, saturated fatty acids and added sugar were also specified in the dietary guidelines for the specific age groups, along with practical advice for the public to reduce intakes [171, 177]. It was specified that the sum of saturated and *trans* fat intakes should be lower than 10% of energy [171, 174]. The Nutrient Reference Values (NRVs) [176] have suggested dietary intakes for those aged 14 years and over for macronutrients, sodium, fibre, selected fatty acids, vitamins and minerals. Nutrient Reference Values have an upper limit of sodium of 2300mg per day for those aged 14 years and over, 1000mg for 1-3 year olds, 1400 for 4-8 years, 2000 for 9-13 years, and a recommendation that saturated fat and *trans* fats combined is <10% energy. The NRVs are currently under review by the Australian Department of Health and NZ MoH overseen by a steering and advisory group [176]. A scoping study was conducted in 2011 and a methodological framework developed with public consultation undertaken in 2015. Three nutrients (sodium, iodine and fluoride) were selected for partial reviews to apply and test the methodological framework. The new fluoride values were adopted by the National Health and Medical Research Council of Australia and published in March 2017; revised sodium values are expected mid-2017 and work on iodine at a later date [178].

International best practice examples (benchmarks)

- **Brazil**: The Strategic Action Plan for Confronting NCDs in Brazil, 2011-2022 specifies a target of increasing adequate consumption of fruits and vegetables, from 18.2% to 24.3 % between 2010 and 2022 and reduction of the average salt intake of 12 g to 5 g, between 2010 and 2022 [179].
- **South Africa**: The South African plan for the prevention and control of NCDs includes a target on reducing mean population intake of salt to <5 grams per person per day by 2020 [180].
- **UK**: In July 2015, the government adopted as official dietary advice the recommendation of the Advisory Committee on Nutrition that sugar should make up no more than 5% of daily calorie intake (30g or 7 cubes of sugar per day). Current sugar intake makes up 12 to 15% of energy. An evidence review by Public Health England outlines a number of strategies and interventions [181].

8 LEADERSHIP: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

LEAD3: Clear, interpretive, evidence-informed food-based dietary guidelines have been established and implemented.

Evidence of implementation

- The 2015 Eating and Activity Guidelines for adults [175] is the first publication using a new model to provide comprehensive advice on nutrition, physical activity and obesity prevention. A central guidelines document with eating and activity advice for all population groups will be accompanied by issues-based papers with in-depth information links to evidence and health education resources for the public. Future editions will include key advice for other ages and pregnant and breastfeeding women, and in-depth information on topical issues. Work is being undertaken on a serving size review. The publication recommends decreasing sodium intake but does not have a target level. The guidelines recommend decreasing free sugar intake, while there is no target for free sugars, the WHO recommendation of <10% of total energy from free sugars and preferably <5% is in the section on choosing foods with little or no added sugar. The recommended intake for saturated fat and *trans* fats combined is <10% energy. There are two new health education resources 'Healthy Eating, Active Living' and 'Eat healthy food and move more every day' (October 2015).
- The contracts with the MoH include a clause that all messages must be in line with the current food and nutrition guidelines of the MoH (personal communication, MoH, 2017).
- The 2016 HPA annual report [47] states that HPA have completed a nutrition and physical activity sector hub. New or updated online and print resources were produced and distributed supporting the MoH's Eating and Activity Guidelines and aligning with government priorities including prevention of childhood obesity and Healthy Families NZ.

International best practice examples (benchmarks)

- **Brazil**: The national dietary guidelines of Brazil address healthy eating from a cultural, ethical and environmental perspective, rather than based on number of servings per food group. The main recommendations are: 'Make natural or minimally processed foods the basis of your diet'; 'use oils, fats, salt, and sugar in small amounts for seasoning and cooking foods'; 'use processed foods in small amounts'; 'avoid ultra-processed foods'. They also provide advice on planning, shopping and sharing meals, as well as warning people to be wary of food marketing and advertising [182, 183].

8 LEADERSHIP: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

LEAD4: There is a comprehensive, transparent, up-to-date implementation plan (including priority policy and program strategies, social marketing for public awareness and threat of legislation for voluntary approaches) linked to national needs and priorities, to improve food environments, reduce the intake of the nutrients of concern to meet WHO and national recommended dietary intake levels, and reduce diet-related NCDs.

Evidence of implementation

- The Childhood Obesity Plan was introduced in October 2015 [97] by the MoH. The previous comprehensive plan (Healthy Eating, Healthy Action strategic framework and implementation plan, developed in 2003 and 2004 respectively) and programme was discontinued in 2008/09. The Childhood Obesity Plan is a package of initiatives to prevent and manage obesity in children and young people up to 18 years. There are three focus areas with 22 initiatives: 1. Targeted interventions for those who are obese. 2. Increased support for those at risk of becoming obese. 3. Broad approaches to make healthier choices easier for all New Zealanders.

The package brings together existing and new initiatives across government agencies, the private sector, communities, schools, families and whanau. Five of the actions focus on improving the healthiness of environments (DHB healthy food policies, marketing and advertising to children, food industry pledges, health promoting schools, Healthy Families NZ). A cross-government technical advisory committee provided advice on the implementation of a plan. A forum was held with members of the processed food and beverage industries, and relevant government agencies (Sport NZ, MoE, ERO, HPA, MPI). All the cabinet papers, health reports, forum notes and technical advisory group meeting agenda and minutes are publically available on the MoH website.

- Background documents [134] provided initial advice on setting a childhood obesity target (2015) and further advice (2015) recommended setting an initial healthy weight target for children at the age of four before starting school. It was suggested that the target was a Better Public Health Services Target as health alone cannot achieve the target. A Cabinet Strategy Committee did not support this approach (15 June 2015). A new health target was implemented from 1 July 2016: 'By December 2017, 95% of obese children identified in the Before School Check (B4SC) programme will be offered a referral to a health professional for clinical assessment and family based nutrition, activity and lifestyle interventions.' The target was selected as the B4SC focuses on early intervention to ensure positive, sustained effects on health. The coverage of services such as Active Families needed to be expanded and the age of eligibility lowered from five to four years at an indicative cost of $3.8 M per annum to be reprioritised from funding identified in the obesity stocktake.
- Progress by DHBs towards achieving health targets is reported quarterly [184]. At baseline (2016/17 Quarter 1) the overall performance was 49% ranging from 17-83%. By the end of Quarter 2, 72% of children were referred nationally ranging from 33-100% for DHBs.
- A reducing childhood obesity intervention logic model aligns with the direction of the Childhood Obesity Plan and recommendations of the World Health Organization Commission on Ending Childhood Obesity. The model sets out a number of shared goals, outcomes and indicators for the New Zealand Childhood Obesity Programme. The MoH has worked across government agencies to agree on a set of key indicators to measure progress towards reducing childhood obesity; progress will be tracked over the long-term with the first set of results available in late 2017. Monitoring progress will enable better social investment to help address the diverse environmental factors that affect childhood obesity (personal communication, MoH, 2017).
- The Ministry of Education is working alongside the MoH, ACC, Sport NZ, the Heart Foundation and Healthy Families NZ to implement the Government's Childhood Obesity Plan (personal communication, MoE, 2017).
- The New Zealand Food Safety Authority had a Nutrition Strategy 2009-12 with its associated work programme that included the intention of reducing sodium intake in the diet and improving the nutritional quality of fat in the food supply. This has not been updated. Nutrition is not within MPI's mandate; however, there are a number of nutrition-related projects and areas of work that are carried out within MPI. These include monitoring and implementation of the New Zealand and Australian front of pack labelling (the Health Star Rating system), monitoring voluntary folic acid fortification and the New Zealand Total Diet Study (which includes measurement of fluoride, iodine, selenium and sodium) and significant input into global food regulations that are related to nutrition especially the Codex Committee on Nutrition of Foods for Special Dietary Uses and the Codex Committee for Food Labelling. MPI is also responsible for New Zealand input into the Food Standards Code: the trans-Tasman food regulations that include aspects of nutrition in the composition and labelling requirements (personal communication, MPI, 2017).

International best practice examples (benchmarks)

- **EU**: The European Food and Nutrition Action Plan 2015-20 outlines clear strategic goals, guiding principles, objectives, priorities and tools. The Plan aligns with the WHO Global Action Plan and under 'Objective 1 – Create healthy food and drink environments' and there are clear policy and program actions identified [185].

8 LEADERSHIP: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

LEAD5: Government priorities have been established to reduce inequalities in relation to diet, nutrition, obesity and NCDs.

Evidence of implementation

- The New Zealand Public Health and Disability Act 2000, which the statement of intent refers to [148] sets the strategic direction and goals for health and disability services in New Zealand, including improving the health of Māori and other specific population groups.
- Relevant items in the MoH Statement of Intent 2015-19 [150] are that the Government's cross-sector priorities in the health and social sector include supporting vulnerable children, and under health system outcomes, improving outcomes for particular groups such as Māori, Pacific, older people and vulnerable children.
- 'Ala Mo'ui: Pathways to Pacific Health and Wellbeing 2014-2018 [186] is a plan for improving health outcomes for Pacific peoples with a vision of achieving health equity for all Pacific peoples in NZ. The plan is guided by Pacific principles including supporting Pacific people and communities to be healthy and to experience improved broader determinants of health. The plan has indicators related to the number of Pacific children aged 2-14 years who are obese. All parts of the health and disability sector are responsible for improving Pacific health outcomes and reducing inequalities. In the MoH, all business units and teams retain responsibility for Pacific health outcomes as part of their work programmes and operational activities. DHBs take responsibility with District Strategic Plans and District Annual Plans of DHBs describing plans for improving Pacific health and reducing inequalities [187].
- He Korowai Oranga [188] is NZ's Māori Health Strategy that sets the overarching framework that guides the Government and the health and disability sector to achieve the best health outcomes for Māori. It was updated with input from across the sector during 2013/14. Pae Ora (Healthy Futures) is the Government's vision and aim for the refreshed strategy. It builds on the initial foundation of Whanau Ora to include Mauri Ora (healthy individuals) and Wai Ora (healthy environments). It is a living web-based strategy. It supports the MoH and DHBs to improve Māori health by addressing the: NZ Health Strategy, NZ Disability Strategy and the NZ Public Health and Disability Act 2000. Wai Ora includes access to healthy food. Pathway 3 includes focusing on reducing risk and strengthening prevention.
- The Ministry continues to administer and monitor the Māori Provider Development Scheme to develop more accessible and effective Māori health and disability service providers, and the Māori Health Innovation Fund (Te Ao Auahatanga Hauora Māori) to support innovation in health services for Māori [189]. A key priority for the current funding round is improving the health and wellbeing of whānau and children.
- DHBs are the primary funders of Māori health providers. Under legislation of the NZ Public Health Act 2000, DHBs have a responsibility to support Māori involvement in service delivery. Each DHB has a Māori Health plan.[190]. DHBs are required to improve the health of Māori and reduce health disparities for Māori compared to other population groups in NZ. DHB Māori health plans are fundamental planning, reporting and monitoring documents. DHB Māori health profiles present a snapshot of Māori health compared with non- Māori across a range of health and disability related indicators [191].
- There is a good institutionalisation of the Treaty of Waitangi within central and local government (e.g. certain provisions included in the Local Government Act).
- The MoH continues to report the estimates derived from health surveys and nutrition surveys by four subpopulation groups including age group, gender, ethnic group and an area level deprivation index [15, 192]. Similarly, estimates derived from other data types (e.g. mortality) are presented by these subpopulation groups. A Māori health statistics page presents a range of statistics including socioeconomic determinants of health (2013 statistics) and there are statistics for Māori from the NZ Health Survey presented in this section [191].

- The contracts between MoH and NGOs or other institutions continue to include a section on Māori Health and state: “An overarching aim of the health and disability sector is the improvement of Māori health outcomes and the reduction of Māori health inequalities. You must comply with any: a) Māori specific service requirements, b) Māori specific quality requirements and c) Māori specific monitoring requirements”. In addition, the provider quality specifications for public health services include specific requirements for Māori: “C1 Services meet needs of Māori, C2 Māori participation at all levels of strategic and service planning, development and implementation within organisation at governance, management and service delivery levels, C3: support for Māori accessing services”. In the specific contract between the MoH and Agencies for Nutrition Action the first clause is on Māori Health: “you must comply with any Maori specific service requirements, Māori specific quality requirements and Māori specific monitoring requirements contained in the Service specifications to this agreement” (personal communication, MoH, 2017).
- Healthy Families NZ was launched in 2014 and is carried out specifically in lower income communities: East Cape; Far North District; Invercargill City; Lower Hutt City; Rotorua District; Whanganui District; Manukau Ward; Manurewa-Papakura Ward; Spreydon-Heathcote Ward; and Waitakere Ward. The 10 communities come from areas with higher-than-average rates of preventable chronic diseases (such as diabetes), higher-than-average rates of risk factors for these diseases (such as smoking), and/or high levels of deprivation. The 10 communities are geographically spread and are a mixture of urban and rural areas, so the Healthy Families NZ can provide valuable evidence on what works (and what doesn’t) for a diverse range of communities [193] (See platforms for interaction 4).
- Some of the Science Challenges have a strong focus on reducing health inequalities (see Funding 2 for details).

International best practice examples (benchmarks)

- **New Zealand**: The MoH reports the estimates derived from health surveys and nutrition surveys by four subpopulation groups including age group, gender, ethnic group and an area level deprivation index. Similarly, estimates derived from other data types (e.g. mortality) are presented by these subpopulation groups. The contracts between MoH and NGOs or other institutions include a section on Māori Health and state: “An overarching aim of the health and disability sector is the improvement of Māori health outcomes and the reduction of Māori health inequalities. You must comply with any: a) Māori specific service requirements, b) Māori specific quality requirements and c) Māori specific monitoring requirements”. In addition, the provider quality specifications for public health services include specific requirements for Māori: “C1 Services meet needs of Māori, C2 Māori participation at all levels of strategic and service planning, development and implementation within organisation at governance, management and service delivery levels, C3: support for Māori accessing services”. In the specific contract between the MoH and Agencies for Nutrition Action the first clause is on Māori Health: “you must comply with any Māori specific service requirements, Māori specific quality requirements and Māori specific monitoring requirements contained in the Service specifications to this agreement”.
- **Australia**: The National Indigenous Reform Agreement (Closing the Gap) is an agreement between the Commonwealth of Australia and the States and Territories. The objective of this agreement is to work together with Indigenous Australians to Close the Gap in Indigenous disadvantage. The targets agreed to by COAG relate to health or social determinants of health. For the target ‘Closing the life expectancy gap within a generation (by 2031)’, one of the performance indicators is the prevalence of overweight and obesity.

9 GOVERNANCE: Governments have structures in place to ensure transparency and accountability, and encourage broad community participation and inclusion when formulating and implementing policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

GOVER1: There are robust procedures to restrict commercial influences on the development of policies related to food environments where they have conflicts of interest with improving population nutrition.

Evidence of implementation

- New Zealand is No. 1 ranking in Transparency International's Corruption Perceptions Index 2016, together with Denmark, obtaining a score of 90% on a total of 176 countries included [194] with high levels of press freedom, access to budget information, high levels of integrity among people in power and fair access to independent judiciaries. Areas where NZ can improve include: access to information, order and security, fundamental rights and civil justice, lack of constraints on government powers and criminal justice, absence of corruption, regulatory enforcement, open government [195]. NZ was 4th place in 2015 with a score of 88 (91 in 2014).
- There are legal expectations with regard to lobbying and commercial influences, contained in legislation including the Crimes Act[196], Electoral Act[197], Secret Commissions Act[198] and others (communication Leo Stothart State Services Commission 2014). New Zealand does not have a legislated lobbying regime. There are no lobbying registers available in New Zealand. A Lobbying Disclosure Bill s sought to regulate lobbying in New Zealand but has been rejected [199].
- Submissions from stakeholders to policy documents are generally publically disclosed in New Zealand.
- The State Services Commission (SSC) in New Zealand has published Best Practice Guidelines for Departments Responsible for Regulatory Processes with Significant Commercial Implications [200]. They cover the development and operation of a regulatory process. They also include specific references to principles around stakeholder relationship management and departmental dealings with former staff who may be employed by, or from, stakeholders. SSC has the power to set minimum standards of conduct for many of the agencies which make up the State Services, and to apply those standards by way of a code or codes of conduct.
- The current Health Star Rating Group is a mix of industry, academics and public health nutritionists [45]. Appointments of members to sit on working groups, committees, advisory groups and standing committees are made in accordance with any relevant legislation, the body's terms of reference and the SSC's Board Appointment and Induction Guidelines. The precise appointment process adopted will depend on a number of factors (intended duration, complexity of work, need for specialist skills, level of public interest in the subject matter etc.) (response MoH to official information request, 2014). According to MPI the process for selecting members for a particular group is usually outlined in the terms of reference (or equivalent document) for that group.
- The SSC have codes of conduct for State Services (standards of integrity and conduct) [201]. Advice and guidance is provided on understanding and implementing the guide. There are guidelines for board appointments and induction guidelines [202] and for managing conflicts of interest for public entities [203]. The SSC conducts regular integrity and conduct surveys.
- Within the WHO Code Compliance Panel for marketing of breast milk substitutes, all panel members on appointment sign a conflict of interest declaration to declare whether or not they have any actual or potential financial, professional or personal conflicts of interest, and if so, the details of these actual or potential conflicts of interest are recorded. A conflict of interest register is kept for current members and conflict of interest is a standard agenda item when the compliance panel is considering complaints. The procedure for dealing with conflicts of interest is outlined in the compliance panel's terms of reference[204]. Members must perform their functions in good faith, honestly and impartially and avoid situations that might compromise their integrity or otherwise lead to conflicts of interest. When members believe they have a conflict of interest on a complaint, they must declare that conflict of interest and the chair will decide what that person can contribute to the discussion and/or activity around the consideration of that complaint.

International best practice examples (benchmarks)

- **Australia**: The Australian Public Service Commission's Values and Code of Conduct includes a number of relevant sections such as the Conflict of Interest, Working with the Private Sector and other Stakeholders and the Lobbying Code of Conduct.
- **US:** Mandatory and publicly accessible lobby registers exist at the federal level, as well as in nearly every state. Financial information must be disclosed, and the register is enforced through significant sanctions. A number of pieces of legislation uphold compliance with the register including the Lobbying Disclosure Act of 1995 and the Honest Leadership and Open Government Act 2007.

9 GOVERNANCE: Governments have structures in place to ensure transparency and accountability, and encourage broad community participation and inclusion when formulating and implementing policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

GOVER2: Policies and procedures are implemented for using evidence in the development of food policies.

Evidence of implementation

- A 2013 report by Sir Peter Gluckman [205], requested by government to improve decision-making, found that there is a wide and rather inconsistent range of practices and attitudes with respect to the understanding and application of robust evidence for policy formation and the evaluation of policy implementation across government agencies. The variability suggests that a more systematic approach would be desirable. The key recommendations from the report include: Develop a standard set of protocols across government regarding obtaining expert scientific advice; 2. Extend the use of Departmental Science Advisors (DSAs) more broadly across government; 3. Use the community of DSAs and the Chief Science Advisor to assist central agencies with longer-term planning, risk assessment and evaluation; 4. Improve and make more explicit the use of government funds for research to assist policy formation; 5. Provide greater transparency regarding the use of research-informed data (or its absence) with respect to complex and controversial areas of decision-making where the public is directly or indirectly consulted. Since the report was published, nine departmental science advisors have been appointed (see platforms for interaction 3). There is a growing emphasis on the potential societal impact of research, for example, Endeavour fund processes now pay greater attention to this, New Zealand is leading an international project to develop a more relevant taxonomy of impact that goes beyond the conventionally narrow focus of academic metrics (see www.smalladvancedeconomies.org), National Science Challenges have societal or environmental impact as a fundamental pillar in their framing and a focus of the Health Research Council is to support policy relevant research. There is more microdata available to researchers. To support novel data science, catalyst projects are underway to encourage more use by the academic community. In 2016 the Department of the Prime Minister and Cabinet and the SSC launched the Policy Project (http://www.dpmc.govt.nz/policyproject) to advance the training and culture within the civil service to support a more evidence focused policy practice. SUPERU, a government agency focused on families, children and whānau, provides another new component of promoting evidence informed policy. A review of progress on the use of evidence in policy formation identified considerable progress and promising practices when compared to the previous study. A third report will be released mid 2017 which explores the policy pressures in an increasingly complex policy environment [206] (personal communication, Chief Science Advisor, 2017).
- The first Chief Education Health and Nutrition Advisor in April 2017 has been appointed to work across Government agencies to help NZ learners achieve their potential through the use of international and national health and nutrition research [207, 208]. The Advisor will lift the quality of public debate around health and nutrition education and bring together analytical, research and policy experts to assist the MoE. The role will provide advice around the design, integration and implementation of the curriculum to strengthen the Food and Nutrition and Physical Activity learning areas. The Advisor will foster good practice within the Ministry, and build bridges to academia and the profession.

- A chief science advisor to the MoH was appointed in 2016 to improve the use of evidence in policy development and evaluation [209]. The Ministry of Primary Industries have a Departmental Science Advisor appointed in 2012 (personal communication, MPI, 2017).
- In 1999 the SSC reviewed the quality of policy advice within the Public Sector and identified areas for improvement. The SSC produced advice for central government agencies on the basis of this review which included advice about the use of accurate information/evidence and steps to ensure its availability when needed [210]. A more recent document was produced in 2008 by the SSC on measuring performance [211]. The SSC continues to provide support in a range of ways. A new guidance series was released on 18 December 2015. It reflects developments in the suite of Performance Improvement Framework products and services [212].
- The policy advice produced by a number of government agencies including the MoH is regularly reviewed by The NZ Institute of Economic Research [213].
- The latest report on the Performance Improvement Framework website for MoH was the 2012 report: Formal review of Manutu Hauora [214].
- FSANZ includes evidence in their regulatory impact assessments.
- SSC conducted a Review of MPI. 'Performance improvement framework: Review of the Ministry for Primary Industries March 2016' [215]. MPI responded to the review proposing to adjust emphasis; lead within government, with the primary industries and across communities; increase the focus on customers; and embed the internal conditions for outstanding performance. MPI was established in 2012 and made very positive progress. Due to major trade, biosecurity and food safety issues the focus was on the protect element of its purpose rather than supporting and challenging the primary sector to grow the value of exports.

International best practice examples (benchmarks)

- **Australia:** The National Health and Medical Research Council (NHMRC) Act 1992 requires NHMRC to develop evidence-based guidelines. These national guidelines are developed by teams of specialists following a rigorous nine-step development process [216].

9 GOVERNANCE: Governments have structures in place to ensure transparency and accountability, and encourage broad community participation and inclusion when formulating and implementing policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

GOVER3: Policies and procedures are implemented for ensuring transparency in the development of food policies.

Evidence of implementation

- The State Services Commission (SSC) reviews each government department each year on performance and these reports are available online through the SSC website. The latest review report for the MoH and for MPI can be found online[214]. FSANZ publishes all material related to processes and outcomes online. Public consultation on standards is possible at several occasions. Submissions from stakeholders are publically disclosed. NZ was ranked first in the Open Budget Index rankings in 2015 [217] and in 2012 [218] indicating a high level of fiscal transparency.

International best practice examples (benchmarks)

- **Australia/NZ**: FSANZ is required by the Food Standards Australia NZ Act 1991 to engage stakeholders in the development of new standards. This process is open to everyone in the community including consumers, public health professionals, and industry and government representatives. FSANZ has developed a Stakeholder Engagement Strategy 2013-16 that outlines the scope and processes for engagement. One of the first priorities outlined was 'maintain our open and transparent approach' [219].

9 GOVERNANCE: Governments have structures in place to ensure transparency and accountability, and encourage broad community participation and inclusion when formulating and implementing policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities.

GOVER4: The government ensures access to comprehensive nutrition information and key documents (e.g. budget documents, annual performance reviews and health indicators) for the public.

Evidence of implementation

- Key budget documents (e.g. Vote Health), annual performance reviews of the different government departments and reports on nutrition guidelines and survey results are available for download online through the library of the MoH. In addition, in NZ the public can request specific information through the Official Information Act.
- Through the Official Information Act 1982, information on budgets spent on population nutrition promotion by MoH, MPI, the HPA, DHBs and PHUs were easily obtained.
- The general approach is that information formally generated by the MoH is published on the web. Decisions about work programmes and funded priorities are published through the Ministry's Statement of Intents and output plans, both of which are on the web. Decisions about publication of material on the web or through publications are usually made by the business unit producing that information, but there are no formal policies covering what is published (information obtained from MoH through official information request). MPI publishes most reports on its website. In cases where reports are withheld from publication, it is because of commercial or other sensitivities.
- Background documents for Childhood Obesity Plan have been published including Health Reports to the Minister, minutes of the technical advisory group meetings and a food and beverage industry forum [134].
- NZ was ranked sixth in the Open Data barometer in 2015 [220].

International best practice examples (benchmarks)

- **Australia/New Zealand**: The Freedom of Information Act provides a legally enforceable right of the public to access documents of government departments and most agencies.

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT1: Monitoring systems, implemented by the government, are in place to regularly monitor food environments (especially for food composition for nutrients of concern, food promotion to children, and nutritional quality of food in schools and other public sector settings), against codes/guidelines/standards/targets.

Evidence of implementation

Food composition

- The New Zealand Total Diet Survey (NZTDS) is conducted approximately every five years and monitors the dietary intake of contaminants and some key elements (including sodium) from a simulated NZ diet for key population groups. MPI did not undertake a NZTDS in 2014 (personal communication, MPI, 2017). The 2016 NZTDS was undertaken with a proposal consultation paper released for public consultation. Fourteen submissions were received. Feedback was sought on whether the list of chemicals proposed is sufficient, changes to the key foods list, any population groups missing, any new data on NZ infants, children and adolescents. As a result of the submissions, a simulated diet for Pacific people will be included. Results from each quarterly sampling periods have been published. The final report is due to be published in December 2017 [221]. A detailed exposure assessment will then be undertaken. Sodium is included in the 2016 NZTDS. This includes sampling 132 foods for sodium content and conducting a dietary exposure assessment of sodium for a number of population sub-groups (personal communication, MPI, 2017).
- FSANZ completed an evaluation of *trans* fats in 2014 (see label1) and found a significant reduction in levels.
- The New Zealand Institute for Plant & Food Research Limited and the MoH jointly own the New Zealand Food Composition Database (NZFCD) which is a comprehensive collection of nutrient data in NZ. It contains nutrient information on more than 2600 foods. The nutrients sodium, fat, saturated fat, *trans* fatty acids, sugars and total fibre are included. Accredited laboratories in New Zealand and Australia are used to analyse these nutrients in the foods. The output products of the NZFCD are: NZ FOODfiles, the Concise NZ Food Composition Tables and NZ food composition data for NIP. An updated version of the FOODfiles and Concise Tables is published every 2-3 years. Approximately 65 Food Records are updated annually as new foods or replacements for foods with values older than 10 years old or sourced from other databases [222]. There are two versions of the data files in the New Zealand FOODfiles 2016: 1. A standard version with data for 84 components of 2574 foods. The list of core components changes over time, so some foods do not have data for all 76 components. 2. An unabridged version with data for 342 food components of 2574 foods listed in the standard version. Most foods do not have data for all 342 components [223]. The following food groups are included: bakery products, alcoholic beverages, non-alcoholic beverages, breakfast cereals, cereals and pseudo-cereals, dairy, eggs, fast foods, fats and oils, finfishes, fruits, meats, meat products, miscellaneous, nuts and seeds, recipes, sauces and condiments, shellfishes, snack foods, soups, sugar, confectionary and sweet spreads, vegetables, and infant formulas and baby foods [223].
- Since 2011 researchers at The National Institute for Health Innovation (NIHI) have been collecting data on packaged foods available for sale in supermarkets and fast food restaurants, partially funded by MPI since 2013. In supermarkets, photographs are collected from all sides of the package of all packaged foods (displaying an NIP). Data are entered into an online database (Nutriweb). Products are categorized according to the categorisation system used by the Global Food Monitoring Group and INFORMAS. In 2016, 1 536 unique products (including different package sizes) were collected. For fast food restaurants data are collected on-line and in-store on all products available for sale at major fast food chains (at least 20 stores nationwide). Where available, serving size and nutrition information per 100g and per serve is collected. Products are categorised into 16 main food groups and 41 smaller categories. In 2016, 13,589 unique products (foods and beverages) were collected. The FoodSwitch app, which was previously developed using Nutritrack data is still available free to NZ shoppers, but is not being updated due to lack of sustainable funding (personal communication, NIHI, 2017).

- The Ministry of Education is currently exploring opportunities to monitor the number of ECE and school settings who have adopted the Water Only Schools policy (personal communication, MoE, 2017).

Food promotion

- There is no monitoring of food promotion in place in New Zealand. Some research has been done in the area, but not nation-wide and not across all types of media.

Food provision

- Both in 2007 and 2009 a School and Early Childhood Education (ECE) Services Food and Nutrition Environment Survey was organised in a representative sample of Schools and ECEs across New Zealand [224]. Those surveys aimed to collect information on key baseline indicators, follow-up indicators and experiences of key stakeholders in relation to the implementation of Healthy Eating Healthy Action (HEHA) and Mission-On initiatives within school and ECE services. The initial 2007 Survey aimed to collect baseline information on the availability, supply and sale of food and beverage types and described the prevalence and content of food and nutrition policies and procedures in schools and ECE services. The survey was repeated in 2009.
- ERO completed a report on the current status of food, nutrition and physical activity in schools and ECEs [91], though the focus was on education and the curriculum rather than the food environment.
- There is a monitoring and evaluation framework for the National Food and Drink Policy.

International best practice examples (benchmarks)

- **Many countries**: Many countries do have food composition databases available. For example, the New Zealand Institute for Plant & Food Research Limited and the MoH jointly own the New Zealand Food Composition Database (NZFCD) which is a comprehensive collection of nutrient data in New Zealand containing nutrient information on more than 2500 foods.
- **UK**: in October 2005, the School Food Trust ('the Trust'; now called the Children's Food Trust) was established to provide independent support and advice to schools, caterers, manufacturers and others on improving the standard of school meals. They perform annual surveys, including the latest information on how many children are having school meals in England, how much they cost and how they're being provided [225].

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT2: There is regular monitoring of adult and childhood nutrition status and population intakes against specified intake targets or recommended daily intake levels.

Evidence of implementation

- The MoH is currently commissioning a review of the New Zealand Health Survey (NZHS), which is scheduled to report mid-2017. The possible inclusion of a nutrition component for the NZHS is likely to be considered as part of this review alongside other potential topics. Health sector leaders will shortly be consulted on how possible NZHS topics should be prioritised (for example how we should prioritise nutrition surveys and the range of other potential topics that are important to New Zealanders health and well-being) (personal communication, MoH, 2017). Earlier MoH communication in an email to update on progress indicated that a review and refresh of the broader New Zealand Health Survey would commence in 2016 to ensure the work of the New Zealand Health Survey is aligned with the recently updated New Zealand Health Strategy. Due to the review and the complexity of work involved, delivering a Nutrition Module in 2017/18 is no longer feasible. While delivering a Nutrition Module and a Physical Activity Module at a later date is still very much a possible option, the composition of the New Zealand Health Survey's forward programme from 2018/19 will not be agreed until the review is complete (personal communication, MoH, 2017).

- The latest nation-wide adult nutrition survey was carried out from October 2008-October 2009 (4721 adults aged 15+ years participated) [226]. Results were presented separately for Pacific people (n=757) and Māori people (n=1040) [192]. The results included information on energy and macronutrient intake, dietary habits, measured body mass index, measured waist circumference, blood pressure, cholesterol and diabetes [15]. Sodium intake was not estimated. There were separate estimates for sucrose, fructose, lactose and total sugar intake, as well as for saturated and total fat intake but not intake of *trans* fats. The latest nation-wide survey on children was conducted in 2002. From April 2011, the Health Survey and the various other surveys (including the Adult and Child Nutrition Surveys, Tobacco, Alcohol and Drug Use Surveys, Te Rau Hinengaro – the New Zealand Mental Health Survey, and the Oral Health Survey) were integrated into a single survey, which is now in continuous operation. Each year, the survey collects data from a representative sample of about 13000 adults and 4000 children. The survey contains some core questions and measurements that are repeated each year, as well as a series of modules that change each year. The core questions and measurements cover all key health domains, including health status, long term conditions, health risks and behaviours, health service utilisation and socio-demographic factors. The core measurements of the NZHS include self-reported fruit and vegetable intake, and for children, breakfast consumption, fizzy drink consumption and fast food consumption among children. Results for the core survey are reported annually. Researchers can apply to access the micro-data [227].
- The Food and Nutrition Monitoring report was published in 2006, which covered information from a range of sources about the food supply in New Zealand [228].
- HPA annual report 2015 [105]: Health and Lifestyles survey reports on proportion of New Zealanders who eat fruit and vegetables twice a day or more. The survey is a monitor of the health behaviour and attitudes of adults 15+ and parents and caregivers of 5-16 year olds. It has been conducted every two years since 2008 and collects information on a range of health topics.

International best practice examples (benchmarks)

- **US**: The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations [229]. The NHANES program began in the early 1960s and has been conducted as a series of surveys focusing on different population groups or health topics. In 1999, the survey became a continuous program that has a changing focus on a variety of health and nutrition measurements to meet emerging needs. The survey examines a nationally representative sample of about 5,000 persons each year. These persons are located in counties across the country, 15 of which are visited each year.

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT3: There is regular monitoring of adult and childhood overweight and obesity prevalence using anthropometric measurements.

Evidence of implementation

- The NZHS continues to measure weight and height and publish the results annually [227]. The survey has over 13000 adults and 4000 children participating annually. A publication on 16 April 2015 titled 'Understanding excess body weight: New Zealand Health Survey' [230], explores the increase in obesity over a 36-year period to 2013 and investigates the impact on different birth cohorts. It reviews the current status of adult and child obesity in NZ, looking at the population groups that are affected most. A questionnaire gathers information on key questions on nutrition, general health, anthropometry and NCDs. The health surveys also measure waist circumference among children and adults.
- The B4 School Check (B4SC) [231] is a nationwide programme offering a free health and development check for four year olds. B4 School Checks were rolled out nationwide in September 2008. The B4SC includes the measurement of height and weight for recording in the Well Child health book and B4SC

database. The target was achieved. The MoH prepared a document on the Access, Use and Disclosure Policy for B4 School Check Information System Users[232]. The B4SC reached 92% of four year olds in 2014/15 and 2015/16, with uptake in high deprivation areas of 93% in 2015/16. [233].

- Access to the data can be requested. All requests for access to B4SC data that do not fit neatly into one of the purposes for originally collecting the information held on the B4 School Check system are considered by a Ministry governance body guided by an access policy (personal communication, MoH, 2017).
- One of the NZ Maternity Clinical Indicators is 'women with BMI over 35' [234]. This indicator is reported by DHB and ethnicity.

International best practice examples (benchmarks)

- **UK**: England's National Child Measurement Programme was established in 2006 and aims to measure all children in England in the first (4-5 years) and last years (10-11 years) of primary school. In 2011-2012, 565,662 children at reception and 491,118 children 10-11 years were measured [235].

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT4: There is regular monitoring of the prevalence of NCD risk factors and occurrence rates (e.g. prevalence, incidence, mortality) for the main diet-related NCDs.

Evidence of implementation

- The current health survey reports on health status, health behaviours and risk factors (smoking, alcohol consumption, fruit and vegetable intake, self-reported physical activity, body weight, health conditions (blood pressure, high cholesterol, IHD, stroke, diabetes)) [227]. The 2014/15 survey conducted biomedical tests on a sub-sample of (aim 5000) adults 15+ years including total, HDL cholesterol; glycated haemoglobin; indicators of kidney diseases and liver function; folate (blood), iodine, sodium and potassium (urine) (survey content guide) [236].
- Blood pressure is measured among adults in the NZHS [227]. 'Doctor-diagnosed' heart disease, stroke, diabetes, asthma, arthritis, mental health conditions, chronic pain, high blood pressure, high blood cholesterol are self-reported.
- The Mortality Collection (MORT) classifies the underlying cause of death for all deaths registered in New Zealand, and all registerable stillbirths (foetal deaths), using the ICD-10-AM 6th Edition and the WHO Rules and Guidelines for Mortality Coding. Deaths registered in New Zealand from 1988 onwards are held in the Mortality database[237]. The National Minimum Dataset (NMDS) is a national collection of public and private hospital discharge information, including coded clinical data for inpatients and day patients. Data has been submitted electronically in an agreed format by public hospitals since 1993 [238]. It is updated annually and includes leading causes of death, demographics and historical trends in mortality.
- The New Zealand Cancer Registry (NZCR) is a population-based register of all primary malignant diseases diagnosed in New Zealand, excluding squamous and basal cell skin cancers [239]. Updated annually, it includes cancer registrations, deaths from cancer, most common cancers and leading causes of death.
- The New Zealand Burden of Disease, Injury and Risk Study 2006-2016 (NZBD) [240] is a systematic analysis of health loss by cause for New Zealanders of all ages, both sexes and both major ethnic groups. It includes estimates of fatal and nonfatal health losses from 217 diseases and injuries and 31 biological and behavioural risk factors. This information is intended to support health policy and planning. It includes estimates of health loss due to diet and high BMI.
- There is a virtual national diabetes register based on data from primary care. The diabetes register is collated annually and is an estimate from 5 national collections [241].
- Statistics NZ compiles life tables every five years with information on life expectancy including patterns of mortality, NZ life-period tables, births and deaths [242].

International best practice examples (benchmarks)

- **OECD countries**: Most OECD countries, including New Zealand, have regular and robust prevalence, incidence and mortality data for the main diet-related NCDs and NCD risk factors.

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT5: There is sufficient evaluation of major programs and policies to assess effectiveness and contribution to achieving the goals of the nutrition and health plans.

Evidence of implementation

- There is no comprehensive nutrition and health plan in NZ. The Healthy Eating Healthy Action Strategy was discontinued in 2009 [243]. The MoH strategic direction [150] includes: reduce obesity – the Childhood Obesity Plan is a new priority. The Childhood Obesity Plan is a package of initiatives to prevent and manage obesity in children and youth up to 18 years. Much of the plan is bringing together existing initiatives (e.g. Eating and Activity Guidelines) with some new initiatives (e.g. DHB healthy food policies). The Cabinet Social Policy Committee did not provide clear actions for evaluation, only that obesity would be monitored using the NZHS data [134]. One of the initiatives has a health target '95% of obese children identified in the Before School Check (B4SC) programme will be offered a referral to a health professional for clinical assessment and family based nutrition, activity and lifestyle interventions'. An update on the Childhood Obesity Plan (October 2016) reports progress made on 14 initiatives [244].
- An initial Healthy Families NZ Cabinet paper of 2013 [245] discussed initial evaluation indicators: Evaluation year 1 & 2 immediate indicators of change (participation), years 2-4 intermediate indicators of progress (e.g. fruit veg intake), year 4+ population outcomes (e.g. BMI). The evaluation is being conducted by Massey University. There is a national evaluation team that supports each Healthy Families NZ location to develop a local evaluation plan that will identify priorities for evaluation. The local evaluation aims to support each location to evaluate, learn from and continuously adapt their activities. The local plans will encourage regular review of data to provide rapid feedback. The national evaluation will be fed back into local-level action. The national evaluation aims to understand how Healthy Families NZ has been implemented and if it is contributing to the prevention of chronic disease and uses qualitative and quantitative data sources to inform the indicator development for the Qualitative Comparative Analysis. A detailed case study of each location is developed to understand initiative implementation, the current state of the prevention system and health status (NZHS data and B4SC data for each location). The case study uses multiple data types: community stocktake, key informant interviews, social network analysis, evaluation and monitoring information and existing health status data. There will be a comparison of the case studies between two time periods (approximately two years) to see what has changed for whom and why and what works, using qualitative comparative analysis (personal communication, Massey University, 2017). The baseline case-studies are being finalised currently and a draft Interim Report was recently submitted to the MoH. This most likely will be publically available once finalised. The design will provide crucial information for potential future monitoring. As always in evaluation, there are limitations when expecting to see change in long-term health conditions. Publications are planned of the evaluation processes and findings including a methodology and methods paper which will be published in the near future. The available funding is $1.18 million over three and half years.

International best practice examples (benchmarks)

- **US**: The National Institutes for Health provide funding for rapid assessments of natural experiments. The funding establishes an accelerated review/award process to support time-sensitive research to evaluate a new policy or program expected to influence obesity related behaviours (e.g. dietary intake, physical activity or sedentary behaviour) and/or weight outcomes in an effort to prevent or reduce obesity [246].

10 MONITORING AND INTELLIGENCE: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans.

MONIT6: Progress towards reducing health inequalities and societal and economic determinants of health are regularly monitored.

Evidence of implementation

- All MoH surveys (including the more recent nutrition and health surveys) report on estimates for different population groups in particular by ethnicity (including Māori and Pacific peoples), by age, by sex and by NZDep). The NZHS reports results for Asian people [227].
- MoH contracts include a section on Māori Health and state: "An overarching aim of the health and disability sector is the improvement of Māori health outcomes and the reduction of Māori health inequalities. You must comply with any: a) Māori specific service requirements, b) Māori specific quality requirements and c) Māori specific monitoring requirements".

International best practice examples (benchmarks)

- **New Zealand**: All annual MoH surveys report estimates by subpopulations, in particular by ethnicity (including Māori and Pacific peoples), by age, by gender and by New Zealand area deprivation.

11 FUNDING AND RESOURCES: Sufficient funding is invested in 'Population Nutrition Promotion' to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs and their related inequalities.

FUND1: The 'Population Nutrition Promotion' budget, as a proportion of total health spending and/or in relation to the diet-related NCD burden is sufficient to reduce diet-related NCDs.

Evidence of implementation

- Through the Official Information Act 1982, information on budgets spent on population nutrition promotion by MoH and Public Health Units of DHBs were easily obtained. The spending of the Ministry of Education on population nutrition promotion is difficult to retrieve so has not been included. MPI does not allocate budget for population nutrition promotion initiatives such as Health Star Rating (HSR) and the NZ Total Diet Study (NZTDS). The MoH and HPA fund the HSR campaigns (personal communication, 2017, MPI).
- The total budget for DHBs over 3 years (2014/15-2016/17) was $28,041,712 which is $9.4 million per year (response to OIA request). Some DHBs commented that it was difficult to separate nutrition from other programmes, particularly in settings like schools. This budget included public health units, NGOs funded by the DHB and Project Energize (schools in Waikato) but not Green Prescription. In 2012/13, the budget for DHBs was $4 million per year.
- The total spending by the MoH on population nutrition promotion was $40.9 million in 2014/15, $41 million in 2015/16 and $41 million in 2016/17. During this period, the spending was 1.44%, 1.44% and 1.38% of Vote Health for each year. Previously (2012/2013) the MoH budget on population nutrition promotion was $24 million which was 0.9% of Vote Health operational budget and 0.17% of total Vote Health compared to $67 million during 2008/09 HEHA period. The budget for physical activity is included as could not be separated.
- Therefore, the total annual budget for population nutrition promotion from the DHBs and MoH was estimated at about $49.9 million during 2014/15-2016/17 and $29 million during 2012/13.

Programmes	2014/15 $000	2015/16 $000	2016/17 $000
Education Setting	1 498	1 498	1 498
Food Industry	918	918	918
Fruit in Schools	6 902	6 902	8 125
Health For Life	360	360	360
Health Promotion and Advertising	7 883	7 290	7 290
Health Star Rating	0	667	667
Healthy Workplaces	239	239	239
Healthy Families NZ	9 000	9 300	9 403
Maternal and Child Nutrition	3 223	2 943	2 074
Obesity Campaign Funding	0	2 085	590
Obesity Taskforce	310	310	0
Other Nutrition activities	613	374	0
Pacific Heartbeat	834	834	834
Physical Activity	902	1 004	2 415
Physical Activity & Nutrition	7 266	5 336	5 018
Under 5 Energize	500	500	500
School Health Promotion	448	448	1 062
TOTAL:	**40 846**	**41 008**	**40 992**

The above budgets exclude all individual health promotion, primary care, B4SC, Wellchild, Plunketline, Telehealth, antenatal services, maternal and child nursing services, food safety, micronutrient deficiencies, breastfeeding promotion and under nutrition programmes. Note that some of the above may include other services outside nutrition when paid as part of other services, including nutrition as the primary service.

	2014/15 $m	2015/16 $m	2016/17 $m
Vote Health Annual Budget	15 557	15 868	16 142
Less: Capital funding	1 114	1 103	818
Departmental funding	193	192	196
District Health Board Funding	11 405	11 720	12 220
	12 712	13 015	13 234
Total NDE Funding excl Captial & DHBs	**2 845**	**2 853**	**2 908**
% spend on nutrition / Vote Health	**1.44%**	**1.44%**	**1.38%**

- The HPA budget for nutrition initiatives during the 2016/17 financial year is $1.1million (personal communication, HPA, 2017).
- The budget for Healthy Families NZ over 4 years is 44 million ($40 million Non Departmental Expenditure) over 4 years [193].

International best practice examples (benchmarks)

- **New Zealand**: The total funding for population nutrition was estimated at about $67 million or 0.6% of the health budget during 2008/09 Healthy Eating Healthy Action period. Dietary risk factors account for 11.4% of health loss in New Zealand.
- **Thailand:** According to the most recent report on health expenditure in 2012 the government greatly increased budget spent on policies and actions related to nutrition (excluding food, hygiene and drinking water control). Total expenditure on health related to nutrition specifically from local governments was

29,434.5 million Baht (about 840 million USD) (7.57% of total health expenditure from public funding agencies), which was ten times over the budget spending on nutrition in 2011. Dietary risk factors account for about 10% of health loss in Thailand.

11 FUNDING AND RESOURCES: Sufficient funding is invested in 'Population Nutrition Promotion' to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs and their related inequalities.

FUND2: Government funded research is targeted for improving food environments, reducing obesity, NCDs and their related inequalities.

Evidence of implementation

- All funding recipients from the Marsden Fund and the Health Research Council (HRC) NZ were evaluated.
- For Marsden [247], in 2014 (total budget $55,687,000), 2015 (total budget $53,535,000) and 2016 (total budget $65,245,000) the only funding for projects related to population nutrition or prevention of obesity and non-communicable disease was $700,00 in 2014 for investigating whether taxes on unhealthy food can reduce consumption. For Marsden, both in 2012 (total budget=$54,960,000) and 2013 (total budget=$58,965,214) there was no funding for projects related to population nutrition or prevention of obesity and NCDs.
- For the HRC [248] the percentage of the budget spent on population nutrition and/or prevention of obesity and NCDs was: in 2014 8.9% (total budget=$114,396,246), 2015 3.9% (total budget=$73,025,001), 2016 7.2% (total budget=$119,100,991) and 2017 (January to March) 21% (total budget=$13,814,306). For the HRC, in 2012 11.4% (total budget=$69,960,192) and in 2013 10.6% (total budget=$70,964,459) was spent on population nutrition and/or prevention of obesity and non-communicable diseases.
- In February 2017, a joint partnership between the HRC, MoH and the Healthier Lives National Science Challenge awarded $5.7 million to research to prevent and manage pre-diabetes and diabetes. [249].
- MPI policy and science functions contribute to some areas of nutrition work with unspecified budget allocation. Examples include *trans* fats and healthy claims monitoring surveys.
- The High Value Nutrition Science Challenge is focused on increasing export revenues rather than population nutrition.
- The National Science Challenge: 'A better start' is working to reduce obesity and improve learning skills and mental health in NZ children [250]. The mission is to find better ways to predict, prevent and treat obesity, learning and mental health problems in NZ children and teenagers. The work is a collaboration of experts and institutions. The focus is children early in life and most in need (Māori, Pacific, poorer children), to engage families and communities and take a holistic approach to obesity, learning and mental health difficulties. Funding is $34.7 million over ten years 2015-2024. It is hosted by the Liggins Institute. In 2017, 'A Better Start' and Cure Kids launched a $2.8million pool to fund research to find better ways to reduce childhood obesity along with literacy, mental health and Austism Spectrum Disorders [251].
- The Ageing Well challenge is researching how to sustain health and wellbeing as people age. There are no specific nutrition-related aims or research to date.
- The Healthier Lives challenge is undertaking innovative research aimed at reducing death and disease burden from NCDs (cancer, CVD, diabetes, obesity) [252]. Prevention and treatment: There is commitment to WHO goals of reducing burden of NCDs by 25% by 2025 and reducing health inequalities between populations by 25% by 2025. There is funding up to $31.3 million over 10 years [252].
- The MoH has a Pacific Innovations Fund. In December 2016, funding was extended to continue the five projects already improving health and wellbeing of Pacific people. All but 1 study have a prevention focus: Tapuaki programme (pregnancy and parenting education including nutrition), Prevention of Obesity programme (Lower Hutt), Youth project utilising the Diabetes Study (focus BMI and nutrition) and E Sili Le Puipuia (Prevention is better) in Porirua focused on risk factors like obesity and smoking [253].

International best practice examples (benchmarks)

- **Australia**: The National Health and Medical Research Council (NHMRC) Act requires the CEO to identify major national health issues likely to arise. The National Health Priority Areas (NHPAs) articulate priorities for research and investment and have been designated by Australian governments as key targets because of their contribution to the burden of disease in Australia. For the 2015-16 Corporate Plan, obesity, diabetes and cardiovascular health are three of these NHPAs.
- **Thailand**: The National Research Council funded more research projects on obesity and diet-related chronic diseases (such as diabetes, cardiovascular diseases and hypertension) in 2014, accountable for almost six times over the research funding in 2013 (from 6,875,028 Baht in 2013 to 37,872,416 baht in 2014).

11 FUNDING AND RESOURCES: Sufficient funding is invested in 'Population Nutrition Promotion' to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs and their related inequalities.

FUND3: There is a statutory health promotion agency in place that includes an objective to improve population nutrition, with a secure funding stream.

Evidence of implementation

- The Health Promotion Agency (HPA) is a Crown entity established by the NZ Public Health and Disability Act 2000 [47]. HPA has an overall function to lead and support activities to promote health and wellbeing and encourage healthy lifestyles, prevent disease, illness and injury; enable environments which support health, wellbeing and healthy lifestyles; and reduce personal, social and economic harm. Strategic objectives relate to New Zealanders eating healthily, being more active and achieving a healthy weight. HPA is required to give effect to Government policy when directed by the responsible Minister. HPA has a central role as the Government's expert on health promotion. A priority area is Healthy Families NZ [160].

International or national best practice exemplar

- **Australia**: The Victorian Health Promotion Foundation (VicHealth) was the world's first health promotion foundation, established by the Victorian Parliament as part of the Tobacco Act of 1987 (for the first 10 years through a hypothecated tobacco tax) through which the objectives of VicHealth are stipulated. VicHealth continues to maintain bipartisan support.

12 PLATFORMS FOR INTERACTION: There are coordination platforms and opportunities for synergies across government departments, levels of government, and other sectors (NGOs, private sector, and academia) such that policies and actions in food and nutrition are coherent, efficient and effective in improving food environments, population nutrition, diet-related NCDs and their related inequalities.

PLATF1: There are robust coordination mechanisms across departments and levels of government (national and local) to ensure policy coherence, alignment, and integration of food, obesity and diet-related NCD prevention policies across governments.

Evidence of implementation

- The requirement for co-ordinated action across Government continues to feature in the Ministry of Health (MoH) Statements of Intent. The introduction of the 2015-19 MoH Statement of Intent [150] states the health sector is developing new ways to meet challenges working with other agencies on housing, education and welfare to improve New Zealanders' health. 'Tackling obesity, for example, means collaborating with education, food industry, communities and individuals'. Greater regional and national collaboration between DHBs is encouraged. The Statement of Intent 2012-2015 encouraged coordinated action across government [148].
- The Healthy Families NZ [193] and Childhood Obesity Plan [97] encourages organisations to work across sectors.
- The Childhood Obesity Plan includes sports and education sectors [97]. Initiative 15: Sport in Education programme expansion is delivered by Sport NZ. A representative from the Ministry of Education is on the steering group. There used to be a tripartite Memorandum of Understanding (MoU) between Sparc, MoH and Ministry of Education (MoE). This helped provide the platform for the Mission-On initiative which was supported at ministerial, agency and implementation levels. The MoU was not renewed when it expired in 2009. A new MoU was established between Sport NZ and the MoH in 2016.
- The MoE website lists the initiatives of the Childhood Obesity Plan that include education [97]: 17: Teachers' professional learning and development in health and physical education (lead MoE), ERO report on schools (ERO, MoE) on how early learning and schools' curriculum promotes positive attitudes about health, physical activity and nutrition, play.sport (Sport NZ), Health Promoting Schools (MoH), Sport in Education (Sport NZ) and the Prime Minister's Education Excellence Awards (MoE).
- The MoH and MoE are working together to encourage schools to become water and milk only [244].
- The Government set 10 challenging results for the public sector to achieve and reports on results, though none of these relate to nutrition or obesity [254].
- The Social Policy Evaluation and Research (SPEaR) Committee is a cross-agency group established by the New Zealand Government in 2001 to oversee the government's investment in social policy research and evaluation. "We use our unique cross-agency mandate to monitor social research and evaluation activity. We work to strengthen connections between public, private and tertiary sector providers and users of information. We do this to increase the capacity and capability of the social sector to deliver evidence-informed advice in a timely manner. We advocate for the provision of social research and evaluation to decision makers. SPEaR was established with 17 member agencies." The committee was supported by the SPEaR Secretariat [255] but has not had a chair since 2010. It is not clear if this is still current as the website states they are undergoing a review (possibly 2010), there are no current updates on the website and the chair position is still vacant.
- The purpose of the Social Policy Evaluation and Research Unit (Families Commission) is to increase the use of evidence by people across the social sector to improve lives of New Zealanders. It is an autonomous crown entity [256].
- Whānau Ora is an inclusive interagency approach to providing health and social services to build the capacity of all New Zealand families in need. It empowers whānau as a whole rather than focusing separately on individual family members and their problems[257]. It is jointly implemented by MoH, MSD and Te Puni Kōkiri (TPK). It is has been included in DHB annual plans for the last two years and continues to be a government priority (2015) [258].
- The Social Sector Forum has a Children's Action Plan focused on vulnerable children but not directly related to NCDs or nutrition [143]. This forum brings together CEOs of government agencies in the social

sector (Health, education, Social Development, MBIE, Pacific Island Affairs, TPK) to address complex problems. There is no apparent direct focus on NCDs and nutrition.

- The purpose of the Kia Tūtahi/Standing Together Relationship Accord [259] is to strengthen the relationship between Government and the communities of NZ. A review in 2015 concluded that 'How government engages with the community sector from the outset determines the overall success of an initiative and/or project. There are many examples of good community-government engagement practices we could draw from. However, there were also examples of initiatives that experienced difficulties when the principles of trust and mutual respect, good faith, and inclusiveness were not being applied'.

International best practice examples (benchmarks)

- **Australia**: There are several forums and committees for the purpose of strengthening food regulation with representation from New Zealand and Health Ministers from Australian States and Territories, the Australian Government, as well as other Ministers from related portfolios (e.g. Primary Industries). Where relevant, there is also representation from the Australian Local Government Association.
- **Finland**: The Finnish National Nutrition Council is an inter-governmental expert body under the Ministry of Agriculture and Forestry with advisory, coordinating and monitoring functions. It is composed of representatives elected for three-year terms from government authorities dealing with nutrition, food safety, health promotion, catering, food industry, trade and agriculture [80].
- **Malta**: Based on the Healthy Lifestyle Promotion and Care of NCDs Act (2016), Malta established an inter-ministerial Advisory Council on Healthy Lifestyles in August 2016 to advise the Minister of Health on any matter related to healthy lifestyles. In particular, the Advisory Council advises on a life course approach to physical activity and nutrition, and on policies, action plans and regulations intended to reduce the occurrence of NCDs. The Prime Minister appoints the chair and the secretary of the Advisory Council, while the ministers of education, health, finance, social policy, sports, local government, and home affairs appoint one member each [80].

12 PLATFORMS FOR INTERACTION: There are coordination platforms and opportunities for synergies across government departments, levels of government, and other sectors (NGOs, private sector, and academia) such that policies and actions in food and nutrition are coherent, efficient and effective in improving food environments, population nutrition, diet-related NCDs and their related inequalities.

PLATF2: There are formal platforms between government and the commercial food sector to implement healthy food policies.

Evidence of implementation

- The advisory groups related to HSR [45] are the front-of-pack labelling steering committee, trans-Tasman HSR advisory group (NZ holds one of 10 seats), NZ HSR advisory group. The NZ Health Star Ratings Advisory Group was established to provide advice on an approach to voluntary interpretive front of pack labelling in New Zealand. This committee has wide representation and includes commercial food, academia and public health and is chaired by MPI.
- As part of the Childhood Obesity Plan Initiative 10 [134] an industry forum was held in May 2015. There were presentations from the Advertising Standards Authority, the Food and Grocery Council (FGC), NZ Beverage Council, McDonalds, Burger King, Countdown and Foodstuffs NZ. It was reported that there was strong willingness from participants to support action on childhood obesity. An industry forum was facilitated by the MoH in October 2016 for food and beverage sector companies and industry groups. The content of the overarching Healthy Kids Industry Pledge was developed collectively by forum participants. Companies and industry groups are invited, via a page on the MoH website, to commit to the overarching pledge and/or develop individual pledges. An annual report back will be facilitated by the MoH (personal communication, MoH, 2017). Forum attendees were FGC, NZ Beverage Council, Countdown, McDonalds, Retail NZ, Fonterra, Heart Foundation, Frucor, Nestlé, Foodstuffs NZ, Restaurant Brands, Association of NZ Advertisers (ANZA) and the Antares Restaurant Group [260]. A Food and beverage industry pledge was announced in October 2016 [261]. Representatives from a range

of groups and organisations in the food and beverage industry committed to an industry wide pledge to help reduce childhood obesity. Some organisations and groups made specific pledges to make reformulation, advertising and labelling changes.

- Four of NZ's largest supermarket retailers (Foodstuffs, Progressive Enterprises, Moore Wilson, Bin Inn) have pledged to support product reformulation, education, provision of healthy choices and use of HSR, and ethical and responsible advertising of food to children [3]. Countdown have established health and nutrition targets [4].
- In December 2016 the companies and industry groups that had committed to the Healthy Kids Industry Pledge were: McDonalds NZ, Nestlé, Fonterra, Retail NZ, ANZA, FGC [261] [260]. The Retail NZ pledge included: reformulation of private label products, education, provide healthy choices in store, HSR on products, responsible advertising of food to children, report on activities undertaken [3]. The McDonalds pledge was not on the website. Nestlé have nutrition commitments which align with the Healthy Kids Industry Pledge related to product reformulation, encouraging healthy food choices, nutrition information, portion guidance, education and responsible marketing to children. There is a report on their website detailing commitments and progress to date. All children's products sold in NZ meet Nestlé nutrition criteria [1]. There are plans for sodium reduction in 2 minute noodles, reduced sugar in some cereals, have HSR on 60% of relevant products by the end of 2016, portion guidance advice on some products, sponsor Cook for Life program for teens. Fonterra [2] publicly report on progress and actions include milk for schools, milk for KickStart Breakfast, HSR on all products by the end of 2018, comply with ASA code, sponsoring events for children supporting healthy nutrition and reformulation. The ANZA is a signatory to the Advertising Codes of practice but there is no information on their website on the pledge. The FGC [262] are committed to consider options for innovation and reformulation, support HSR, provide information on healthy choices, support responsible marketing, advertising and sponsorship, support efforts to address differences in health outcome and publically report on progress.
- A NZ food industry group arose out of the formation of the Food Industry Accord, which was launched in 2004 by the former Minister of Health. In 2009 funding for the group reduced and the co-ordinator was no longer employed [263, 264] .
- The Chip Group is run by Potatoes New Zealand (PNZ) with a Training & Education Manager, and an Education & Communications Manager with support from PNZ Staff and Board. This is equally funded by Industry (PNZ) and the MoH. The MoH contribution is $85,000 NZD per annum. A Technical panel including industry representatives from McCains, Mr Chips and Talley's provides industry perspective and promotion of the Chip Group training to their food service clients. The Heart Foundation also provides support to The Chip Group through expertise (personal communication, The Chip Group, 2017).
- Since 2007, the Heart Foundation has implemented a food reformulation programme focused primarily on reducing salt levels across packaged foods (personal communication, Heart Foundation, 2017). This is a service delivery approach rather than a direct engagement platform. See food composition target.
- An important document in the conflicts of interest sphere is the Office of the Auditor-General's 'Managing conflicts of interest: Guidance for public entities' [203]. Current in relation to conflicts of interest, State Servants are bound by the 'Standards of Integrity and Conduct' ('The Code') which sets out the standards expected of State servants. The Code includes the statement 'we must ensure our actions are not affected by our personal interests or relationships.' A breach of this (or any aspect) of the Code may be grounds for disciplinary action [265].
- Controller and Auditor General (AG): 'Reflections from our audits: governance and accountability', has a chapter 'Managing conflicts of interest' dated April 2016. This chapter included a report on a possible conflict of interest by Katherine Rich (Chief Executive, Food and Grocery Council) by being on the Health Promotion Agency Board. The AG considered there were no serious concerns about conflict of interest [266].
- The State Services Commission (SSC) in New Zealand has published Best Practice Guidelines for Departments Responsible for Regulatory Processes with Significant Commercial Implications [200]. These guidelines cover a section on managing conflict of interest issues in different government departments as well. As a principle it is stated that Departments should have clear, effective and robust processes in place for identifying and addressing potential conflicts of interest[200]. Two useful resources are the SSC resource kit "Walking the Line: Managing Conflicts of Interest" (published June 2003 and updated in 2005) [267] as well as an SSC report "Report for State Services Commissioner on Civil Aviation Authority Policies Procedures and Practices Relating to Conflicts of Interest and Conduct of

Special Purpose Inspections and Investigations" (published December 2003) that describes the application of these principles to an example of a regulatory process.

- The 2013 Integrity and Conduct Survey [268] by the SSC was an overall assessment of integrity and conduct in the State Services covering 40 agencies.
- There are conflict of interest registers available for senior management staff by each department. Board members have duties under the Crown Entities act (much stricter for boards than committees). The conflicts of interest are looked after through the crown ownership unit at the treasury. HPA manages conflicts of interest (declaration of interests was received) in accordance with the provisions of the Crown Entities Act 2004 and advice provided to the state sector from the Office of the Auditor General and the State Services Commission. Once board members are appointed, the following HPA procedures apply: A register of interests, regularly updated, in accordance with policy. Identification and noting of interests in preparing agenda. Interest disclosure to be first item at each meeting. Affected member leaves room for discussion/decision (personal communication, HPA, 2017).
- The Treasury's guideline for public private partnerships in New Zealand (2009) refers to public private initiatives as being direct agreements between the crown and the private sector. The Ministry of Health does not have any direct agreements with the Private Sector for nutrition initiatives. However, the Ministry has a small number of contracts with NGOs who have either Memorandum of Understandings or other formal arrangements with the private sector; or the Ministry funds NGOs who also receive separate funding from the private sector for different services. These are managed separately by the NGO. Two nutrition-related Ministry funded joint public private initiatives are as follows:
  - Food for Thought is owned by Foodstuffs and delivered by Heart Foundation regional staff in low decile schools throughout the country.
  - Voluntary Schools Beverage Agreement between NZ Government and beverage industry leaders, Coca-Cola Amatil NZ and Frucor Beverages has resulted in withdrawl of direct supply of full sugar carbonated sugar-sweetened beverages (SSBs) and full-sugar energy drinks from all NZ schools removing an estimated 52.8kg sugar from the diet since 2009 to 2014. Schools can purchase SSBs from other sources [269].

International best practice examples (benchmarks)

- **UK:** The UK 'Responsibility Deal' was a UK government initiative to bring together food companies and NGOs to take steps (through voluntary pledges) to address NCDs during 2010-2015. It was chaired by the Secretary of State for Health and included senior representatives from the business community (as well as NGOs, public health organisations and local government). A number of other subgroups were responsible for driving specific programs relevant to the commercial food sector.

12 PLATFORMS FOR INTERACTION: There are coordination platforms and opportunities for synergies across government departments, levels of government, and other sectors (NGOs, private sector, and academia) such that policies and actions in food and nutrition are coherent, efficient and effective in improving food environments, population nutrition, diet-related NCDs and their related inequalities.

PLATF3: There are formal platforms for regular interactions between government and civil society on food policies and other strategies to improve population nutrition.

Evidence of implementation

- Following a report by the Chief Science Advisor in 2013, the use of Departmental Science Advisors (DSAs) has been extended with nine positions established since 2014 including health, education, social development and justice. The DSAs are seconded from universities or Crown Research Institutes (CRIs) to support the ministry/department to better use evidence to inform policy, to perform a brokering role within their respective agencies and as a committee of science advisors along with the chief economist, chief statistician and deputy head of the SSC. The committee has an instrumental role in enhancing the use of evidence to inform policy from a whole-of-government perspective, applying a science lens to a number of budget bids. Scientific evidence is one of many inputs into policy development. The DSAs have been instrumental within the social sector, particularly in the further refinement of the evidence informed development of the Social Investment model with a considerable shift in thinking, and based

on the application of new big data methodologies to back arguments for early investment for better social outcomes. A working party of science advisors and the Ministries of Education and Health has been established to consider how to apply evidence to education for better health outcomes (personal communication, Chief Science Advisor, 2017).

- There are academics on the Health Star Rating advisory committee [45] and the HPA Board.
- The current MoH advisory groups with a focus on nutrition, obesity or prevention of NCDs are: Eating and Activity Guidelines Technical Advisory Group, Serving Size Project External Group, Physical Activity Technical Advisory Group, National Diabetes Leadership Group, Obesity Governance Group, Reducing Child Obesity Cross Agency Programme Governance Group (personal communication, MoH, 2017). Each Healthy Families NZ location has a governance/strategic leadership group comprised of leaders who can influence change locally. These may include leaders from local government, regional sports trusts, education, health, iwi or business. This group oversees the investment of the Action Budget and the alignment with spending with the principles of Healthy Families NZ (personal communication, Healthy Families NZ, 2017).
- FSANZ encourages input of consumers through the consumer and public health dialogue [270]. MPI attends this meeting as an observer.
- The National Health Committee was disestablished in March 2016 (personal communication, MoH, 2017). It used to provide the Minister of Health with independent advice on a broad spectrum of health and disability issues and incorporated the Public Health Advisory Committee.
- Some NGOs in NZ receive MoH funding, for example, the Heart Foundation food reformulation programme [270] .
- Civil society is encouraged to participate in public submissions in certain aspects of food policy development (e.g. to Parliamentary Inquiries, Select Committees).
- The HPA [105] community partnership funding was first offered in 2013/14. In 2014/15, 21 groups received up to $5000 to deliver projects related to healthy eating and activity.
- The National Science Challenges encourage collaboration with academia, Crown Research Institutes, NGOs and Malaghan Institute. Funded by MBIE [271].

International best practice examples (benchmarks)

- **Brazil**: The National Council of Food and Nutrition Security (CONSEA) is a body made up of civil society and government representatives, which advises the President's office on matters involving food and nutrition security [272]. CONSEA is made up from one-third government and two-thirds non-government executives and workers. It has special powers. It is housed in and reports to the office of the president of the republic. It is responsible for formulating and proposing public policies whose purpose is to guarantee the human right to healthy and adequate food. There are also CONSEAs at state and municipal levels that deal with specific issues, also responsible for organising CONSEA conferences at their levels. CONSEAs are charged to represent Brazilian social, regional, racial and cultural diversity at municipal, state or national level. The elected politicians in Brazil's parliament formally have the power to challenge and even overturn proposals made by CONSEA. In practice, it is most unlikely that any Brazilian government whether of the left or right would wish to do so, partly because of the constitutional status of the CONSEA system, and also because, being so carefully representative of all sectors and levels of society, it remains strong and popular.

12 PLATFORMS FOR INTERACTION: There are coordination platforms and opportunities for synergies across government departments, levels of government, and other sectors (NGOs, private sector, and academia) such that policies and actions in food and nutrition are coherent, efficient and effective in improving food environments, population nutrition, diet-related NCDs and their related inequalities.

PLATF4: The government leads a broad, effective and sustainable systems-based approach with local organisations to improve the healthiness of food environments at a national level.

Evidence of implementation

- Project Energize began in 2005 in the Waikato region [273]. It is funded by Waikato District Health Board. Project Energize partners with Māori and Pacific providers, and organisations that are experts in community development, research, nutrition, sports science and clinical skills, Sport NZ, AUT and Wintec. A total of 44,000 primary and intermediate schoolchildren are now part of Project Energize through 242 Waikato schools, and 5417 children in 126 early childhood centres (personal communication, Sport Waikato, 2017). Vital to the success of Project Energize are the 27 'Energizers' who work with schools, teachers and parents, giving physical fitness and nutritional advice and helping implement health and fitness programmes. A 2011 evaluation of Project Energize (Waikato) found that 'Energize' children had: smaller waist circumferences and lower body-mass index than Waikato children of the same age measured in 2004 and 2006, obesity rates three percent less than the national level and faster running times over 550m compared to national data[274]. WDHB: DHB expenditure on Project Energize: 2012/12 $1924k. 2013/14 $1960k, 2014/15 $1976k, 2015/2016 $1998k, 2016/17 $1997k (Official Information Request, Waikato DHB, 2017).
- Project Energize has expanded to early childhood and other areas. Under 5 Energize is funded through MoH. AUT are evaluating and monitoring the project. It is active in four communities in Waikato [275]. Capital Coast Health funds the Heart Foundation to deliver Project Energize in the Wellington region. Currently there is 1FTE working with 13 schools but this will be extended from April 2016 to 30 schools with 3 FTEs with funding from Capital and Coast DHB. (OIA, Capital and Coast DHB, 2017) [276]. Project Energize in Northland is funded by Northland DHB and Sport NZ with 76 primary schools involved, 8 Energizers and over 10,000 school children (personal communication, Sport Northland, 2017). DHB expenditure on Project Energize listed each year: 2014/15 $512k, 2015/2016 $517k, 2016/17 $526k (Official Information Request Northland DHB, 2017),
- Healthy Families NZ was launched in 2014 [193]. Healthy Families NZ is a collaborative, whole of community, collective approach to prevention. It aims to make changes to systems that influence the health and wellbeing of families and communities. The MoH has lead the establishment of Healthy Families NZ communities in 10 locations across NZ (Far North, Waitakere, Manukau, Manurewa-Papakura, Rotorua, East Cape, Whanganui-Rangitikei-Ruapehu, Lower Hutt, Spreydon-Heathcote, Invercargill). Healthy Families NZ supports local leaders to implement voluntary initiatives that encourage families to live healthy, active lives. Through investment in community partnerships and a skilled health promotion workforce, these communities find local solutions to local needs, supporting healthy living. Activities initially focus on the settings where people live, learn, work, and play. The 10 Healthy Families NZ communities come from areas with higher-than-average rates of preventable chronic diseases, higher-than-average rates of risk factors for these diseases (such as smoking), and/or high levels of deprivation. It is expected that Healthy Families NZ communities will reach approximately 900,000 New Zealanders. The design for Healthy Families NZ communities draws on evidence from the Be Active Eat Well pilot (Colac, Australia), EPODE pilots (France) and Project Energize (New Zealand), which have been associated with a number of measurable improvements that will support the health and wellbeing of children. The process for establishing Healthy Families NZ began with the release of a Registration of Interest (ROI) process to identify and short-list organisations who could act as Local Lead Providers for the implementation of Healthy Families NZ in the communities selected. A skilled prevention team is established at each site to bring together partnerships of key organisations and local leaders who can influence transformational change in their communities. The approach is based on a dedicated, reflective and skilled workforce, building leadership for prevention across the whole community, building relationships with prevention partners across the system, allocating resources to effect sustainable change, and capturing and feeding back knowledge and data. It is guided by the principles: implementation at scale, collaboration for collective effect, equity of outcome, line-of-sight, adaptation, experimentation and leadership. A range of organisations are leading Healthy Families NZ

including sports trusts, iwi organisations, councils, Pacific Primary Health Organisations. Massey University are conducting a progress evaluation.

In October 2016 a Beehive media release by the Health Minister commented that a number of positive changes are happening and gave examples [277].

- Healthy Auckland Together (HAT) [278]: Auckland Regional Public Health Service facilitates a coalition of local government, NGOs, health, iwi and others working collaboratively to make it easier for everyone to reach the 3 goals: improving nutrition, increasing physical activity, reducing obesity. There is a strategic framework with a vision and the context the group operates within with six action plans of which one is food environments and marketing. There are a set of 17 indicators and targets and a baseline monitoring report showing baseline status of these. Nutrition and obesity related targets: dental caries in children, adults eating more fruit and vegetables, reduction of obesity in 4-5 year olds, reduce excess supply fast food outlets, increase availability of healthy food in outlets, more schools and ECEs providing a heart healthy environment, more Pacific Heartbeat community nutrition courses. HAT focuses on collaboration, profile raising, monitoring across streets, parks and places, food environments and marketing, schools and early childhood education services, workplaces and community settings. HAT have committed to implementing the Healthy Food and Drink Policy for Organisations (developed by the National DHB Food and Drink Environments Network) within their own organisations with each member currently at different stages of implementation. Some member organisations such as Healthy Families Manukau and Manurewa-Papakura are actively implementing the policy, while others are at the stages of considering and planning implementation (personal communication, ARPHS, 2017).
- There are examples of organisations working together at a local level. For example, Toi Te Ora have a local food network Kai Western Bay with representatives include Toi Te Ora, Tauranga City Council, Envirohub, Sustainable Business Network, Good Neighbour- Food Rescue, Toi Ohomai, Waikato University, Rethink, and SmartGrowth. The group has set priority areas and is currently thinking strategically to further develop an action plan (personal communication, Toi Te Ora, 2017).
- The National Good Food Network (http://sustainable.org.nz/good-food-nation-2/) is a coordinated approach driven by the Sustainable Business Network, to bring together and strengthen organisations working regionally in their food system through sharing learning and building capacity. Currently there are 13 groups involved and 3 Hui were held in 2016 (personal communication, Toi Te Ora, 2017).

International best practice examples (benchmarks)

- **New Zealand**: Healthy Families NZ is a large-scale initiative that brings community leadership together in a united effort for better health. It aims to improve people's health where they live, learn, work and play, in order to prevent chronic disease. Led by the MoH, the initiative has focused on ten locations in New Zealand. It has the potential to impact the lives of over a million New Zealanders. The Government has allocated $40 million over four years to support Healthy Families NZ [279].
- **Australia**: Healthy Together Victoria in Australia aims to improve people's health where they live, learn, work and play. It focuses on addressing the underlying causes of poor health in children's settings, workplaces and communities by encouraging healthy eating and physical activity, and reducing smoking and harmful alcohol use. Healthy Together Victoria incorporates policies and strategies to support good health across Victoria, as well as locally-led Healthy Together Communities. The initiative was originally jointly funded by the State Government of Victoria and the Australian Government through the National Partnership Agreement on Preventive Health [280, 281]. It is unclear at this stage whether funding for Healthy Together Victoria will continue or not.

13 HEALTH IN ALL POLICIES: Processes are in place to ensure policy coherence and alignment, and that population health impacts are explicitly considered in the development of government policies.

HIAP1: There are processes in place to ensure that population nutrition, health outcomes and reducing health inequalities are considered and prioritised in the development of all government policies relating to food.

Evidence of implementation

- Food Standards Australia New Zealand (FSANZ) does not undertake health impact assessments. However, their standards development process (which is based on the Codex risk analysis model) incorporates key elements, including assessment of issues (including health impacts, if relevant) and consultation. Their process also includes a regulatory impact analysis, and a Regulation Impact Statement (RIS) may be prepared to inform this process. Regulatory impact assessments usually compare several scenarios: no regulation, voluntary regulation and mandatory regulation (1 or 2 different scenarios), but this is not considered a health impact assessment.
- MPI performs safety assessments for agricultural policies.

International best practice examples (benchmarks)

- **Slovenia**: Slovenia undertook a Health Impact Assessment (HIA) in relation to agricultural policy at the national level. This was the first time that the health effects of an agricultural policy were assessed at the country level. The HIA followed a six-stage process: policy analysis; rapid appraisal workshops with stakeholders from a range of backgrounds; review of research evidence relevant to the agricultural policy; analysis of Slovenian data for key health-related indicators; a report on the findings to a key cross-government group; and evaluation [282].

13 HEALTH IN ALL POLICIES: Processes are in place to ensure policy coherence and alignment, and that population health impacts are explicitly considered in the development of government policies.

HIAP2: There are processes (e.g. health impact assessments) to assess and consider health impacts during the development of other non-food policies.

Evidence of implementation

- Policy-level Health Impact Assessment (HIA) guidelines were published in 2004 by the Public Health Advisory Committee (PHAC), a subcommittee of the National Health Committee [283]. The MoH released additional HIA guidelines in 2007 that provided greater focus on Whānau Ora (health and well-being for Māori, their families and communities) [284].
- A national HIA support unit was established in the MoH in 2006. This unit is no longer functioning (personal communication, MoH, 2017).
- During the time that the HIA support unit was active, a number of HIAs were undertaken. Most DHB public health units had undertaken HIAs and there was increasing support for HIAs due to resource allocation workforce development [285] and the willingness of staff to take a new approach to protecting and promoting public health. Local government was a key player in the development of HIA in NZ. In late 2011, 47 HIAs were completed or in progress in NZ at the local level [286]. They cover a wide range of health determinants at a range of levels. All of the HIAs were voluntary as there is no legislative requirement for them to be undertaken.
- Health in All Policies (HiAP) is defined as "an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts, in order to improve population health and health equity." Canterbury HiAP Partnership [287] is an approach to public policies across sectors that takes into account the health implications of decisions, seeks synergies and avoids harmful health impacts in order to improve population health and equity. Christchurch City Council, Canterbury DHB, Regional Council and Ngāi Tahu work to embed a health perspective within their organisations. A joint work plan has been developed between Environment Canterbury and Community and Public Health with a similar plan

underway between the Christchurch City Council and the Canterbury DHB. Excellence awards have been introduced to recognise the collaboration.

International best practice examples (benchmarks)

- **Australia**: Established in 2007, the successful implementation of Health in All Policies (HiAP) in South Australia has been supported by a high level mandate from central government, an overarching framework which is supportive of a diverse program of work, a commitment to work collaboratively and in partnership across agencies, and a strong evaluation process. The government has established a dedicated HiAP team within South Australia Health to build workforce capacity and support Health Lens Analysis projects [288]. Since 2007, the South Australian HiAP approach has evolved to remain relevant in a changing context. However, the purpose and core principles of the approach remain unchanged. There have been five phases to the work of HiAP in South Australia between 2007 and 2016: 1) Prove concept and practice emerges (2007-2008), 2) Establish and apply methodology (2008-2009), 3) Consolidate and grow (2009-2013), 4) Adapt and review (2014) and 5) Strengthen and systematise (2015-2016).
- **Finland**: Finland has worked towards a HiAP approach over the past four decades [289]. In the early 1970s, improving public health became a political priority, and the need to influence key determinants of health through sectors beyond the health sector became evident. The work began with policy on nutrition, smoking and accident prevention. Finland adopted HiAP as the health theme for its EU Presidency in 2006.

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