

# 2020

## Benchmarking Food Environments

Progress by the New Zealand Government on Implementing Recommended Food Environment Policies & Priority Recommendations



### Report

Mackay, S., Sing, F., Gerritsen, S., Swinburn, B. Benchmarking Food Environments 2020: Progress by the New Zealand Government on implementing recommended food environment policies & priority recommendations, Auckland: The University of Auckland, 2020

Full report is available at [www.informas.org](http://www.informas.org)



# Executive Summary

New Zealand’s high levels of obesity and diet-related non-communicable diseases (NCDs) are related to the food environments in which New Zealanders live. Unhealthy food environments lead to unhealthy diets and excess energy intake. Effective government policies and actions are essential to increase the healthiness of food environments and to reduce these high levels of obesity, NCDs, and their related inequalities. It is critical that the Government implements widely recommended preventive policies and actions to match the magnitude of the burden that unhealthy diets are creating. Monitoring the degree 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 all New Zealanders.

## Approach

This report presents the results of the third Healthy Food Environment Policy Index (Food-EPI). Food-EPI assessed the New Zealand Government’s level of implementation of policies and infrastructure support for improving the healthiness of food environments against international best practice. The Food-EPI is an initiative of INFORMAS (International Network for Food and Obesity / NCDs Research, Monitoring and Action Support) and was conducted from February to April 2020 with an Expert Panel of over fifty independent and government public health experts. The first Food-EPI was conducted in 2014, the second in 2017 and this 2020 report analyses progress on policy implementation since 2014.

The Expert Panel rated the extent of implementation of policies on food environments and infrastructure support by the New Zealand Government against international best practice, using an extensive evidence base validated by government officials. They then identified and prioritised actions needed to address critical gaps in government policies and infrastructure support.

## Implementation of Policies

The level of implementation of the indicators has not improved since 2017 (40 indicators unchanged, 6 worse, 1 better), showing that the Government has made no progress compared to international best practice since the last Food-EPI assessment.

As in previous years, the assessment showed some areas of strength. New Zealand rates well against international benchmarks in preventing unhealthy foods carrying health claims. New Zealand is also at the international standard, with many other high income countries, in requiring nutrition information panels on packaged foods, having good monitoring systems for NCDs, and high levels of transparency and access to government information.

Major implementation gaps (‘very little if any’ or ‘low’ implementation) were identified for food environment policies. The areas where New Zealand rates low compared to international benchmarks were restricting marketing of unhealthy food and beverages to children, healthy food policies in schools, fiscal policies to support healthy food choices, supporting communities to limit the density of unhealthy food outlets, introducing food composition targets/standards in out of home settings, and ensuring that trade and investment agreements do not negatively affect population nutrition and health.

Several critical gaps were identified relating to government infrastructure support for obesity and diet-related NCD prevention. The Expert Panel recognised a lack of government leadership and called for a renewed approach to developing a comprehensive plan addressing unhealthy food environments. They noted that previous Government strategies, such as the Childhood Obesity Plan, had made no discernible progress and current Government strategies, such as the Child and Youth Wellbeing Strategy, have no performance indicators relating to improving diet-related health outcomes and minimal policy actions to improve nutrition beyond addressing food insecurity.

## Priority recommendations

The Government is strongly urged to act on the top recommendations in the four key areas, shown in the diagram on the next page, to improve the diets of New Zealanders, especially children, and to reduce the rising health care costs from obesity and diet-related NCDs. The Expert Panel recommended 39 actions, prioritising 13 for immediate action.

The Expert Panel was very clear that for any progress to be made, there needs to be clear leadership including the development of a multi-sectoral Food Systems and Nutrition Strategy guided by a Scientific Committee. The Experts expressed concern about food security, prioritising government action that would ensure households receive an

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Further information on INFORMAS and the Food-EPI is available at: [www.informas.org](http://www.informas.org)

*Special Issue: INFORMAS (International Network for Food and Obesity/non-communicable diseases, Research, Monitoring and Action Support): rationale, framework and approach. Obesity Reviews, 2013, 14(S1): 1-164.*

Results of the Food-EPI 2014 and 2017 can be found here:

*Swinburn, B., Dominick, C., and Vandevijvere, S. Benchmarking Food Environments: Experts’ Assessments of Policy Gaps and Priorities for the New Zealand Government, Auckland: University of Auckland. 2014*

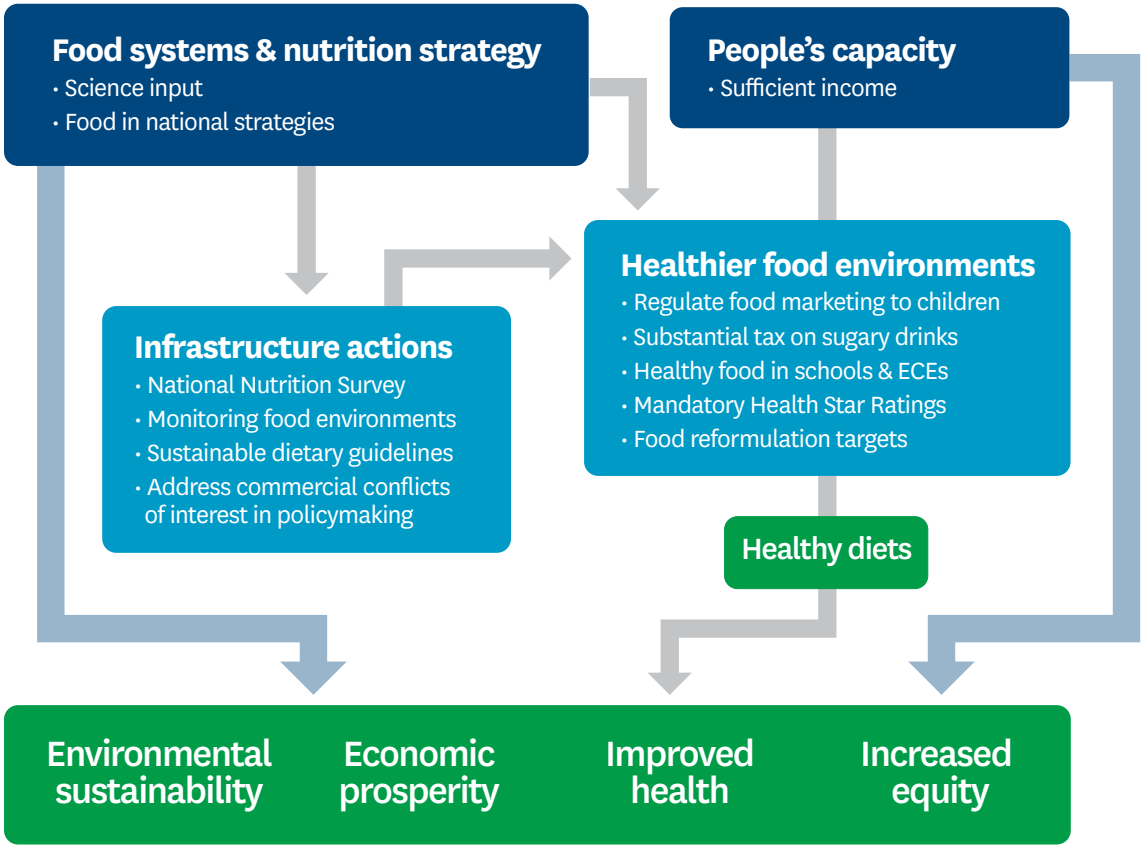
*Vandevijvere, S., Dominick, C., Devi, A., Swinburn, B. The healthy food environment policy index: findings of an expert panel in New Zealand. Bull World Health Organ. 2015 93(5):294-302. doi: 10.2471/BLT.14.145540.*

*Vandevijvere, S., Mackay S., Swinburn, B. Benchmarking Food Environments 2017: Progress by the New Zealand Government on implementing recommended food environment policies & priority recommendations, Auckland: The University of Auckland, 2017*

*Vandevijvere, S., Mackay, S., Swinburn, B. Measuring and stimulating progress on implementing widely recommended food environment policies: the New Zealand case study. Health Res Policy Sys 2018. 16 (3). doi: 10.1186/s12961-018-0278-0*

adequate income to enable autonomy to make healthy food choices.

New Zealand has an excellent opportunity to take the prevention of obesity and diet-related NCDs seriously and invest in highly cost-effective policies and programmes implemented successfully by a large number of countries globally. This will clearly require a much greater government effort than has recently been evident.



# Acknowledgements

Many people have contributed to the development of this report. First, the authors would like to acknowledge the New Zealand Expert Panel who participated in the online rating process, in the workshops to identify actions, and the ranking of the final list of recommendations.

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- Online Appendix 3: List of good practice statements and expert’s ratings 2014, 2017 and 2020
- Online Appendices available to view and download at [www.informas.org](http://www.informas.org)

List of abbreviations

<b>BMI</b> .....	Body Mass Index
<b>ECE</b> .....	Early Childhood Education
<b>FAO</b> .....	Food and Agriculture Organisation
<b>Food-EPI</b> .....	Healthy Food Environment Policy Index
<b>HSR</b> .....	Health Star Rating
<b>INFORMAS</b> .....	International Network for Food and Obesity/non-communicable diseases, Research, Monitoring and Action Support
<b>NCD</b> .....	Non-Communicable Diseases
<b>NGO</b> .....	Non-Governmental Organization
<b>OECD</b> .....	Organisation for Economic Co-operation and Development
<b>WHO</b> .....	World Health Organisation
<b>WCRF</b> .....	World Cancer Research Fund

1. Why do we need to improve New Zealand’s food environments?

Currently, New Zealand’s food environments are characterised by highly accessible and heavily promoted energy-dense, often nutrient-poor, food and drinks, that contain high levels of salt, saturated fats and sugars<sup>(1,2)</sup>. Food environments are the collective physical, economic, policy and socio-cultural surroundings, opportunities and conditions that influence people’s food and beverage choices and nutritional status. They include such things as food composition, food labelling, food promotion, food prices, food provision in schools and other settings, food availability and trade policies that affect food availability, price and quality.

Food environments are major drivers of unhealthy diets and energy overconsumption<sup>(3-5)</sup>. Unhealthy diets and excess energy intake are modifiable factors that contribute to disease and disability in New Zealand. Collectively, unhealthy diets are the greatest contributors to healthy life-years lost in New Zealand. High body mass index (BMI) contributes 8.3% and other dietary risks (such as high salt intake, low fruit and vegetable intake) contributes 8.6% to morbidity<sup>(6)</sup>. The combined impact of unhealthy diets is greater than the estimated 9.7% of health loss from tobacco use<sup>(6,7)</sup>.

The main diet-related diseases are cardiovascular diseases, diabetes and many cancers. These diseases are the main killers of New Zealanders<sup>(8)</sup> and the health costs they incur are rising rapidly. New Zealand has very high levels of obesity with adults having the third highest rate of obesity<sup>(9)</sup>, and children the second highest rate of obesity<sup>(9)</sup> within OECD and EU countries. Overall, in 2018/2019, 31% of adults had obesity, up from 27% in 2006/07. Adult obesity rates are higher for Māori and Pacific adults and for those living in areas of higher deprivation<sup>(10)</sup>. One in nine children aged 2–14 years (11%) have obesity<sup>(10)</sup>. Twenty percent of children living in the most socioeconomically deprived areas have obesity, compared with 5.5% living in the least deprived areas<sup>(10)</sup>.

Who can help improve the healthiness of food environments and population diets?

National governments and the food industry are the two major stakeholders with the greatest capacity to improve food environments and population diets (Figure 1). However, the food industry alone cannot be relied upon to improve food environments, as their primary responsibility is to their shareholders and not the general population. Effective government policies and actions across sectors are essential to increase the healthiness of food environments and to reduce obesity, diet-related NCDs, and their related inequalities<sup>(11)</sup>. This report focuses on the public sector, a separate tool was used to benchmark the commitments of the major food companies in New Zealand related to population nutrition and obesity prevention<sup>(12)</sup>.

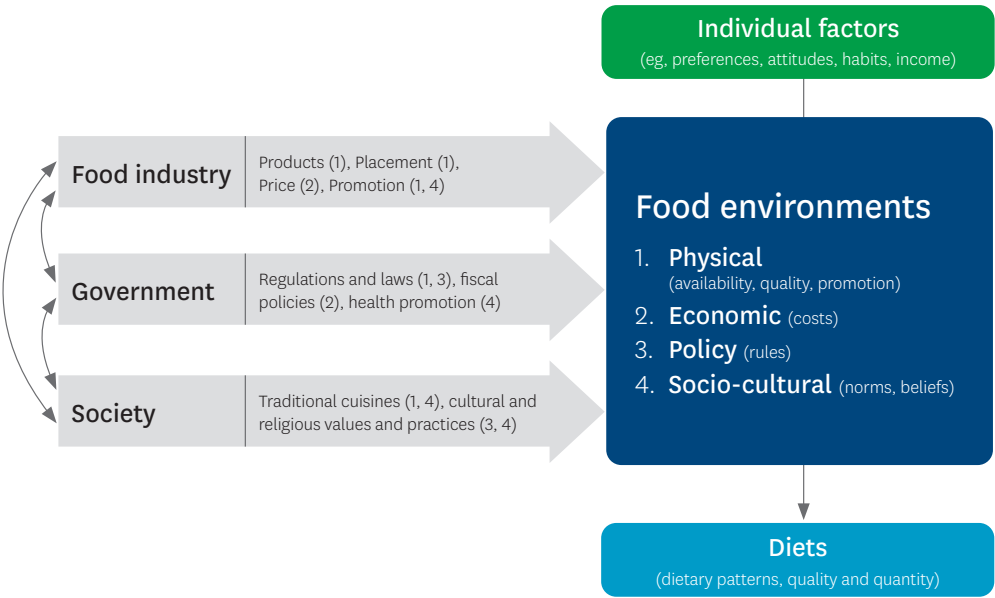


Figure 1 Food environments’ components and the main influences on those environments



Despite wide recognition of this major public health issue internationally, slow and insufficient action by governments and the food industry to improve food environments continues to fuel rising levels of obesity and diet-related NCDs such as type 2 diabetes. This is in part due to the pressure of the food industry on governments<sup>(13,14)</sup> as well as other factors, such as the challenges of providing robust evidence on policy effectiveness before its introduction and competition for resources between prevention efforts and health services delivery<sup>(15)</sup>.

Internationally, some governments have demonstrated leadership and taken action to improve the healthiness of food environments. These can serve as best practice exemplars or benchmarks for other countries. The evidence document, found online as Appendix 1, lists examples of these international best practice exemplars and related references.

This report presents the results of the third Healthy Food Environment Policy Index (Food-EPI), conducted by a Panel of over fifty New Zealand independent and government public health experts. The Food-EPI assesses the level of implementation of government policies and infrastructure support considered good practice for improving food environments and population diets. The Food-EPI was developed by the International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS), first conducted in New Zealand in 2014 and then again in 2017 and 2020. This report analyses progress by the New Zealand Government in 2020 compared to both the 2017 and 2014 results. The report includes recommendations for government action needed to address the gaps in policy and infrastructure support to reduce obesity and diet-related NCDs in New Zealand.



## 2. How was the level of implementation of government policies and infrastructure support assessed?

### Who conducted the assessment?

This study is an initiative of INFORMAS<sup>(3)</sup> and was conducted with an Expert Panel of independent and government public health experts and representatives from health organisations and non-governmental organisations (NGOs).

INFORMAS was founded in 2013 by universities and global NGOs to monitor and benchmark food environments, government policies and private sector actions and practices in order to reduce obesity and diet-related NCDs and their related inequities. INFORMAS aims to complement existing monitoring efforts of the World Health Organization (WHO), such as the global NCD Monitoring Framework, which only has a small focus on food environments and policies<sup>(16)</sup>. Appendix 1 includes a more detailed description of INFORMAS’s aims and objectives.

### What tool was used to measure the level of implementation?

An index developed by INFORMAS<sup>(7)</sup>, called the ‘Healthy Food Environment Policy Index’ (Food-EPI), was used to assess the extent of implementation by government of policies and infrastructure support in New Zealand. The Food-EPI tool and process were designed to answer the question – How much progress has the government made towards addressing good practice in improving food environments and implementing obesity/NCD prevention policies and actions?

The Food-EPI was developed to monitor and benchmark governments’ policies and actions on creating healthier food environments against international exemplars (benchmarks). The indicators and benchmarks are consistent with, and supportive of, the list of proposed policy options and actions for Member States included in the WHO’s Global Action Plan for the Prevention and Control of Non-Communicable Diseases (2013–2020)<sup>(18)</sup> and the World Cancer Research Fund (WCRF) International NOURISHING Food Policy Framework for Healthy Diets<sup>(11,19)</sup>. The Food-EPI tool comprises a ‘policy’ component with seven domains on specific aspects of food environments and an ‘infrastructure support’ component with six domains to strengthen obesity and NCD prevention systems. Good practice indicators contained in these domains encompass policies and infrastructure support necessary to improve the healthiness of food environments and to help prevent obesity and diet-related NCDs (Figure 2).

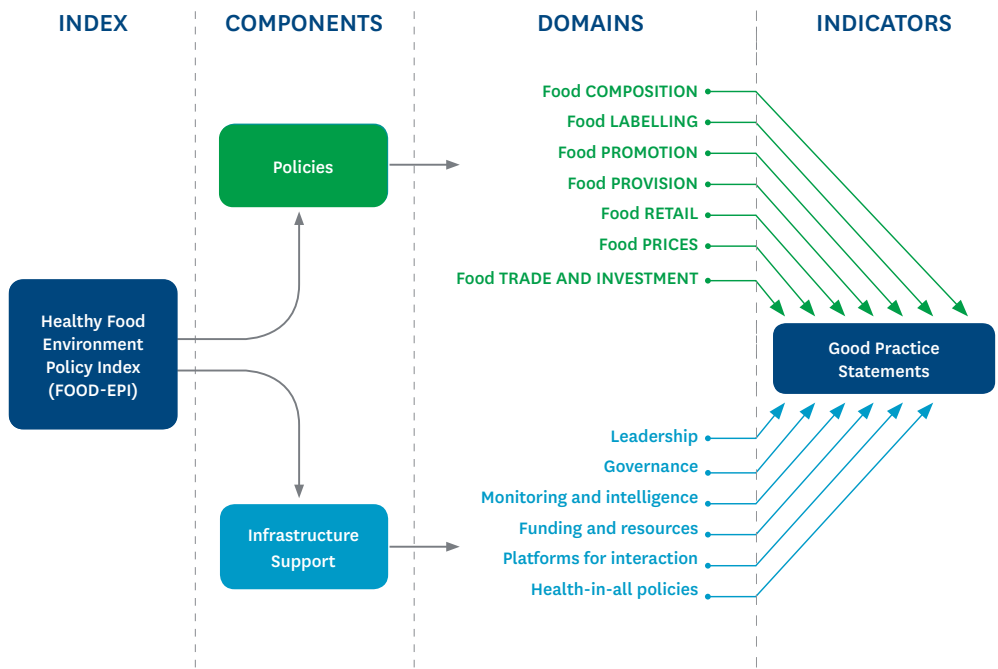


Figure 2 Components and domains of the ‘Healthy Food Environment Policy Index’ (Food-EPI)



The Food-EPI tool and process have been through several phases of development including an initial development based on a review of policy documents, subsequent revision by a group of international experts, from low, middle and high income countries<sup>(17)</sup> and pilot testing in New Zealand in 2013<sup>(20)</sup>. The refined tool was then used in the baseline assessment of New Zealand's policies and infrastructure support in relation to international best practice in 2014<sup>(21,22)</sup> and has been implemented in at least 28 countries globally covering every continent<sup>(23)</sup>. A detailed overview of the Food-EPI methodology is available in Appendix 1.

### What process was used to rate the level of implementation?

The process used to rate the extent of implementation of policies and infrastructure support in New Zealand (more fully described in Appendix 1) involved the Expert Panel rating the New Zealand Government against international best practice benchmarks of policies and actions for creating healthier food environments. The Expert Panel's ratings were informed by extensive documented evidence of current implementation in New Zealand and progress made since 2017 (refer to Online Appendix 1 for the full evidence document and Online Appendix 2 for the evidence summaries) validated by Government officials. The Expert Panel was also provided with a summary of international best practice benchmarks from which they rated New Zealand's progress against.

Using an online rating tool, the Expert Panel rated a total of 47 indicators (23 of which related to policy and 24 of which related to infrastructure support) using Likert scales (1 to 5 with 1 meaning 0-20% implemented compared with international best practice and 5 being 80-100% of international best practice). Before rating each indicator, a summary of the evidence on the extent of implementation in New Zealand, the international benchmarks and progress since 2017 were shown to the Expert Panel. The mean rating for each indicator was used to categorise the level of implementation as 'high', 'medium', 'low' or 'very little, if any'.



## 3. How were the recommended actions identified and prioritised?

Actions for indicators were developed with the Expert Panel during workshops. Due to Covid-19 restrictions on travel and social distancing in March-April 2020, the workshops were conducted slightly differently compared with the process in 2014 and 2017. In 2020, one face-to-face workshop was held in Auckland prior to the restrictions coming into force, and one videoconference (Zoom) workshop was held to replace the planned workshops in the South Island and Wellington.

At the Auckland workshop on 19 March 2020, participants reviewed the 2017 actions and discussed evidence of progress. Proposed amendments to the actions and potential new actions were then developed collaboratively. Actions were identified as high or low priority. Due to time restrictions of public health experts during Covid-19, the actions developed at the Auckland workshop were presented to participants in the videoconference workshop.



During the videoconference workshop, participants again developed actions collaboratively and discussed the high priority actions verbally or via the chat feature. The degree of consensus about the priority of each action was assessed through a voting system conducted using the videoconferencing software. Feedback from participants in the online workshop indicated it was a worthwhile process and they felt they had an opportunity to participate in the decision-making for each action.

Actions were identified for 39 indicators. In total, 22 of the actions were identified as having higher priority, in concert with other actions, to improve the healthiness of food environments and population nutrition and reduce obesity and diet-related NCDs in New Zealand. Tables 1 and 2 outline the full list of recommended actions.

After the workshops, the independent experts (non-Government participants) were invited to rank the high priority Policy and Infrastructure Support actions using an online survey tool. In total, 39 independent and government experts participated in the workshops, and 31 of the 35 independent experts ranked the actions. The Experts were asked to separately rank the importance and likely achievability of the proposed high priority actions. Importance took into account the relative need, impact, effects on equity, and any other positive and negative effects of the action. Achievability took into account the relative feasibility, acceptability, affordability, and efficiency of the action.



## 4. How well is the New Zealand government performing compared with international best practice?

Figure 3 presents the 2020 Food-EPI scorecard for New Zealand and indicates progress compared to the 2014 and 2017 assessments.

The results indicate that overall, no progress has been made since the last Food-EPI assessment in 2017, and New Zealand has not increased its performance compared with international best practice. For those indicators that had changed since the 2017 assessment, the majority had decreased in levels of implementation (six) with only one area rated as having progressed since 2017.

The results found that Experts considered the level of implementation had regressed for food composition targets/standards for out-of-home meals, and the incorporation of regular monitoring of adult and childhood nutrition status and population intakes. The Experts also noted a lack of progress in regards to the Government strengthening the engagement platforms with industry (e.g. industry pledges as part of the Healthy Kids Industry Pledge), as well as a lack of progress in formalising a platform for civil society participation in improving food environments, for example, through the introduction of a Nutrition Advisory Committee.

Although not rated at the level of international best practice, the Experts recognised progress since 2017 for implementation of food-related income support programmes (such as the Healthy School Lunches pilot and increased special needs grants for food from Work and Income New Zealand).

New Zealand rated well against international best practice on a small number of infrastructure support indicators. These included having policies and procedures in place for ensuring transparency in the development of food policies; the public having access to nutrition information and key documents; regular monitoring of BMI, the prevalence of NCD risk factors and occurrence rates for the main diet-related NCDs and monitoring progress towards reducing health related inequalities. New Zealand was rated close to the level of international best practice for other policies, such as the provision of ingredient lists and nutrient declarations on packaged foods and regulating health claims on packaged foods.

However, three fifths (59.5%) of all the indicators were rated as having 'low' or 'very little, if any' implementation compared with international benchmarks (compared to 47% in 2017). This was not spread evenly across infrastructure support and policy statements, with half (50%) of the infrastructure indicators and two-thirds (69.5%) of the policy indicators rated as having 'low' or 'very little, if any' implementation in New Zealand.

Major implementation gaps ('very little if any' or 'low' implementation) were identified for:

- food environment policies, especially for healthy food policies in schools,
- fiscal policies to support healthy food choices,
- implementing restrictions on unhealthy food marketing to children,
- supporting communities to limit the density of unhealthy food outlets in their communities (for example, around schools),
- introducing food composition targets/standards in out of home settings, and
- ensuring that trade and investment agreements do not negatively affect population nutrition and health.

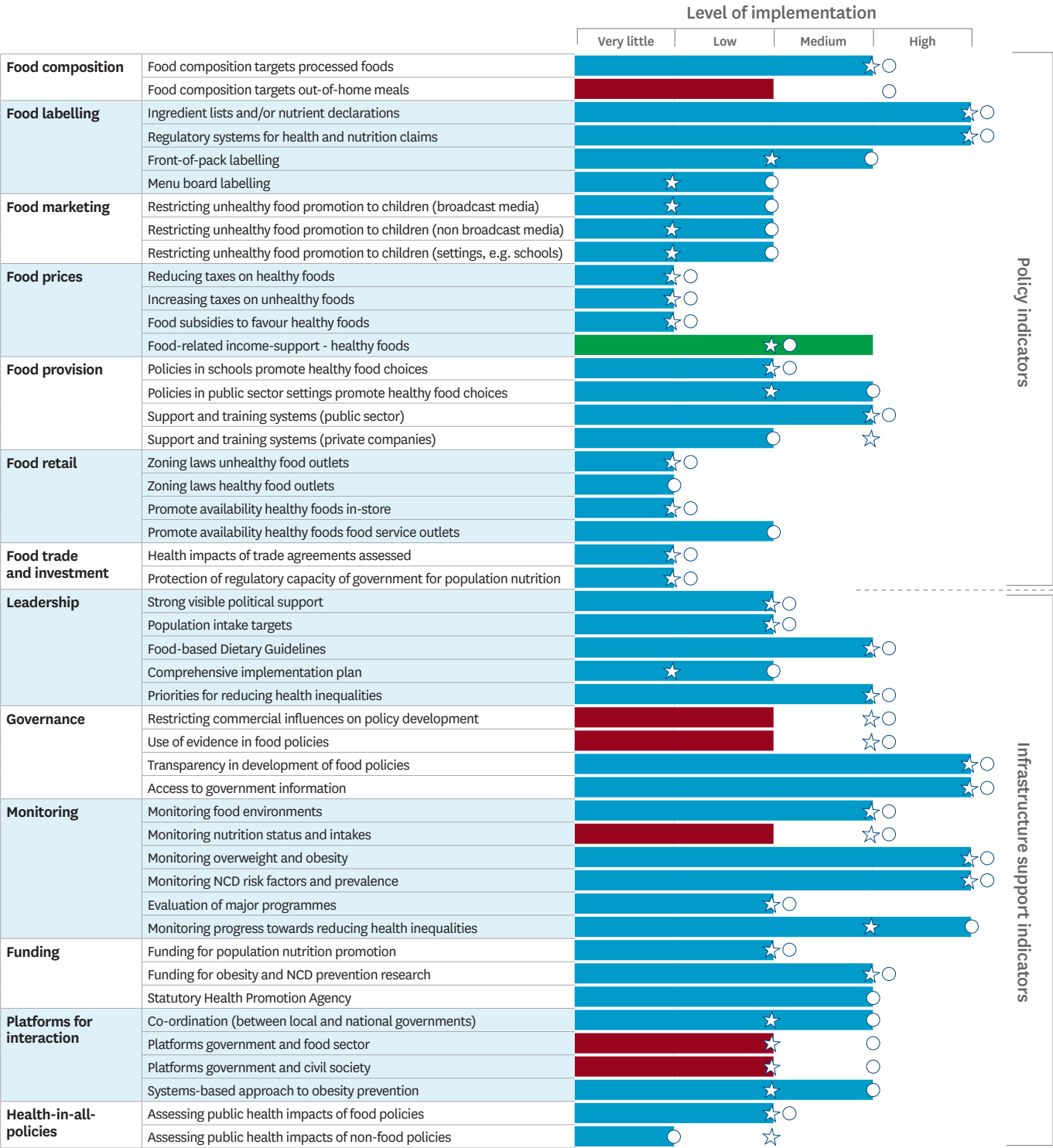
The Expert Panel considered that restricting marketing of unhealthy food and beverages to children was critical to addressing the high levels of obesity in New Zealand's children and adolescents<sup>(24)</sup>. This issue has been a high priority in both the 2014 and 2017 Food-EPI assessments. The Panel proposed actions that regulate advertising through broadcast media, non-broadcast media and in children's settings, such as within schools and early childhood education services and around schools ('school food zones'). In addition, company and brand advertising (e.g. sponsorship) was recognised as an issue that needs urgent consideration since this will be a marketing loophole that companies will exploit. The Expert Panel considered that children up to the age of 18-years should be protected by mandatory restrictions, in line with the United Nations Convention on the Rights of the Child<sup>(25)</sup>, and that the WHO Nutrient Profile Model<sup>(26)</sup> should be used to define what foods and beverages are subject to the restrictions.

In addition to the policies, several critical gaps were identified relating to government infrastructure support for obesity and diet-related NCD prevention. The Expert Panel indicated that there was a lack of government leadership for obesity and NCD prevention and called for a renewed approach to developing a comprehensive plan to address unhealthy food environments. They noted that previous Government strategies, such as the Childhood Obesity Plan, had made no discernible progress and current Government strategies and reports, such as the Child and Youth Wellbeing Strategy and the Child Poverty Reduction Act 2018, have minimal or no policy actions or assessment indicators to improve nutrition (beyond reducing food insecurity).

In conclusion, there are some Government nutrition-related policy areas where New Zealand is operating at the level of best practice, but more than half of the indicators on the Food-EPI scorecard show major implementation gaps that must be addressed to improve the healthiness of food environments in New Zealand. The overall lack of change between 2017 and 2020 shows that no priority has been given to nutrition in the three years since the last Food-EPI assessment. When compared to 2014, there have been five indicators that show progress, however three of those relate to food promotion due to the introduction of the Children and Young Peoples Advertising Code in 2017. Unfortunately, this self-regulatory system has recently been evaluated and found to be ineffective at preventing the marketing of unhealthy food and beverages to children, so the improved ratings proved to be overly optimistic<sup>(27)</sup>. In addition, there were six indicators that have regressed since 2017, including the monitoring of population nutrition status and intakes, and so overall there has been no progress in the New Zealand Government's improvement of food environments since 2014.





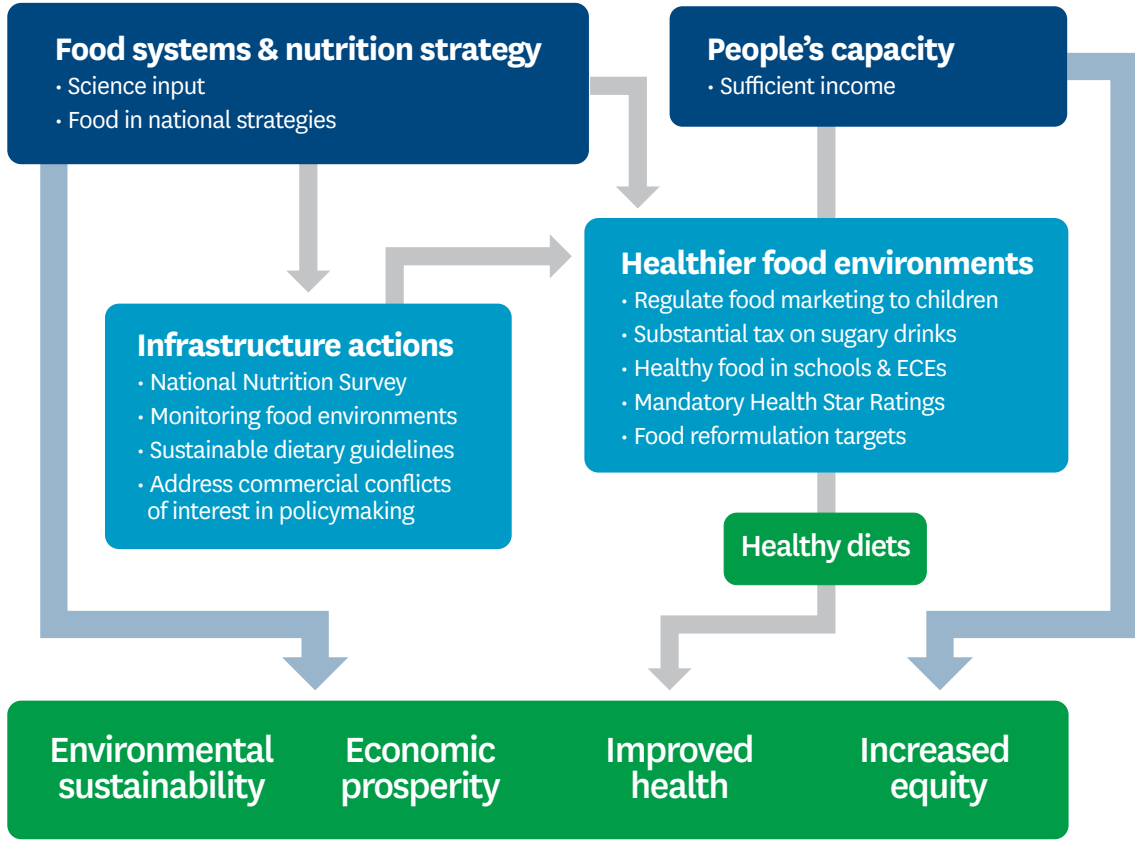


**Figure 3:** Level of implementation of food environment policies and infrastructure support by the New Zealand Government in 2020 against international best practice (☆ 2014, ○ 2017 ratings)

Change in level of implementation: ■ Reduced since 2017; ■ No change since 2017; ■ Progress since 2017

# 5. Which actions did the Expert Panel prioritise for implementation by the New Zealand Government?

Of the 39 actions proposed by the workshops (Tables 1 and 2), 8 policy actions and 14 infrastructure support actions were considered high priority. These priority actions were then ranked by the Expert Panel in regards to importance and achievability, with the highest ranked actions being prioritised for immediate action. Some actions covered more than one indicator. These actions were further condensed into 13 key recommendations for the Government (Figure 4). The list of all final recommended food policy and infrastructure support actions is in Tables 1 and 2 and their importance and achievability rankings are described in Figures 5 and 6.



**Figure 4:** Priority Recommendations

**Table 1** High priority recommended actions for the New Zealand government:  
Policy actions targeting food environments (listed in order of importance ranked by Expert Panel)

Domain	Label	Action
PROMOTION	PROMO1	<b>Marketing to children:</b> The Government introduces regulations to restrict unhealthy food and beverage marketing to children up to 18 years old through broadcast media (during peak TV viewing times), non-broadcast media (including food packaging, sport sponsorship and digital media) and in children’s settings, using the WHO nutrient profiling models, tailored to the NZ context.
	PROMO2	
	PROMO3	
PRICES	PRICES2	<b>Sugary drinks industry levy:</b> The Government introduces a tiered industry levy of at least 20% on sugary drinks and recycles the revenue for programmes to improve public health and well-being.
PRICES	PRICES4	<b>Income support:</b> The Government supports low income households so they can afford a healthy diet.
COMPOSITION	COMP1	<b>Food composition targets:</b> The Government adopts a two-tier system for reducing sodium and added sugar in key food categories: Setting mandatory maximum levels that reduce over time, and; setting and monitoring targets for voluntary reductions in sales-weighted averages.
PROVISION	PROV1	<b>School food policies:</b> The Government requires and supports schools and early childhood education services to develop food policies which ensure healthy foods are provided and promoted.
LABELING	LABEL3	<b>Mandatory Health Star Rating (HSR):</b> The Government makes the HSR mandatory and adopts the recommendations on changes to the algorithm and beverages of the 5-year review of the HSR System.
RETAIL	RETAIL1	<b>Zoning laws:</b> The Government enacts zoning legislation to allow and encourage local Governments to create healthy community food environments (including school healthy food zones, community gardens and reduced concentrations of unhealthy food outlets).
	RETAIL2	
PROVISION	PROV2	<b>Public sector healthy food:</b> The Government applies the healthy food and drink policy it developed for the health sector across the whole government sector.

**Table 1b** Low priority recommended actions for the New Zealand government:  
Policy actions targeting food environments (not ranked by experts)

Domain	Label	Action
COMPOSITION	COMP2	The Government sets a mandatory standard for deep frying oils (maximum saturated plus trans fats) for out-of-home meals and recommends targets for energy, sodium, saturated fat and sugar in Quick Service Chain Restaurant meals.
LABELING	LABEL1	The Government requires added sugars to be added on the Nutrition Information Panel
LABELING	LABEL2	The Government investigates the application of the Nutrient Profiling Scoring Criterion to restrict the use of nutrient content claims on packaged unhealthy foods (especially ‘irrelevant claims’ such as ‘no cholesterol’ claims on plant-based foods).
LABELING	LABEL4	No recommended action
PRICES	PRICES1	No recommended action
PRICES	PRICES3	The Government requires government programmes that subsidize/supply food for pre-school and school-age children (or in Early Childhood Centres and schools) to meet food and nutrition guidelines.
PROVISION	PROV3	The Government increases funding for support and training of Government and children’s settings to remove barriers and stimulate implementation of policies and actions to create healthy food environments at the equivalent level to the current physical activity budget.
PROVISION	PROV4	No recommended action
RETAIL	RETAIL3	The Government supports the food industry to develop SMART (Specific, Measurable, Achievable, Relevant, Time Bound) strategies and evaluate the Food Industry Taskforce commitments.
RETAIL	RETAIL4	No recommended action
TRADE	TRADE1	The Government includes formal and explicit population nutrition and health risk assessments as part of their national interest analysis on trade and investment agreements, including honouring the rights of Māori to the protection of health under the Treaty of Waitangi.
TRADE	TRADE2	The Government ensures that specific and explicit provisions are included in trade and investment agreements, allowing the New Zealand government to preserve its regulatory capacity to protect and promote public health.



**Figure 5:** Importance and achievability of recommended actions (top priorities in green) for the New Zealand Government: Policy actions targeting food environments



**Table 2a** High priority recommended actions for the New Zealand government:  
Infrastructure support actions (listed in order of importance ranked by Expert Panel)

Domain	Label	Action
LEADERSHIP	LEAD1	<b>National Food Strategy:</b> The Government develops a long-term, multi-sectoral National Food Systems and Nutrition Strategy with clear outcomes and indicators to improve sustainability, food sovereignty, health, and equity and to honour the rights of Māori to the protection of health under the Treaty of Waitangi.
	LEAD2	
	LEAD5	
MONITORING	MONIT2	<b>National Nutrition Survey:</b> The Government conducts a new national nutrition survey for children and adults to be commissioned by 2021.
LEADERSHIP	LEAD4	<b>Nutrition in National Strategies:</b> The Government ensures that the implementation plans for existing relevant Government actions such as the Child and Youth Wellbeing Strategy address the national needs and priorities to improve food environments, beyond Healthy Active Learning.
GOVERNANCE	GOVER2	<b>Science Input:</b> The government appoints a Food and Nutrition Scientific Committee to work with the Ministerial Science Advisors to ensure policies related to food and nutrition are evidence-based and equitable.
LEADERSHIP	LEAD3	<b>Healthy Sustainable Dietary Guidelines:</b> The Government actively implements and increases funding to promote Eating and Activity Guidelines which incorporate the social, environmental and cultural dimensions of eating.
FUNDING	FUND1	<b>Nutrition Funding:</b> The Government increases funding for population nutrition promotion to at least 10% of obesity/ overweight health care costs.
GOVERNANCE	GOVER1	<b>Commercial conflicts of interest:</b> The Government expands its conflict of interest procedures to include commercial conflicts and transparency measures so that consultation with the food industry can continue without it exerting undue influence on Government policy development.
	GOVER3	
MONITORING	MONIT1	<b>Monitoring Food Environments:</b> The Government regularly monitors the food environment for health, equity and sustainability.
	MONIT6	
	HIAP1	
MONITORING	MONIT5	<b>Programme Evaluation:</b> The Government includes robust process and impact programme evaluations in any major investment made to improve population nutrition.
PLATFORMS	PLATF1	<b>Cross Government Platforms for Engagement:</b> The Government strengthens and expands platforms for engagement for food-related prevention policies across Government (national and local).
FUNDING	FUND3	<b>Funding Health Promotion Authority:</b> The Health Promotion Agency funding is increased for promoting healthy and sustainable eating including through sector engagement towards a comprehensive approach to food policy.
PLATFORMS	PLATF4	<b>Community Systems Change:</b> The Government expands regional systems platforms (like Healthy Families New Zealand) to other regions and creates more sustainable systems platforms.
PLATFORMS	PLATF3	<b>Engagement Platforms with Civil Society:</b> The Government ensures formal platforms are created for civil society, academic and affected communities’ input into central and local food policy development, implementation and evaluation.
FUNDING	FUND2	<b>Food in National Science Challenges:</b> The Government ensures that improving nutrition and sustainable diets and reducing nutrition inequalities is a priority funding stream within the Science Challenges and is linked to the proposed National Food and Nutrition Strategy.

**Table 2b** Low priority recommended actions for the New Zealand government:  
Infrastructure support actions (not ranked)

Domain	Label	Action
GOVERNANCE	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.
MONITORING	MONIT3	The Government includes anthropometry monitoring, preferably within existing school-based health checks, as an indicator in the Child and Youth Wellbeing Strategy, and funds tailored whānau support services for children with obesity.
MONITORING	MONIT4	The Government continues to invest in cardiovascular disease and diabetes risk assessments and investigates the inclusion of height and weight measurements and the use of the data for population monitoring.
PLATFORMS	PLATF2	The Government creates a meaningful, representative platform to engage and motivate industry to provide a healthier food environment.
HEALTH IN ALL POLICIES	HIAP2	The Government establishes a health impact assessment capacity, including funding for health impact assessments at the national and local level, to ensure that government policies in general are compatible with the objectives of improving health.



**Figure 6:** Importance and achievability of recommended actions (top priorities in green) for the New Zealand Government: Infrastructure support actions

## 1. Food Systems and Nutrition Strategy

New Zealand can create food systems which enhance health outcomes, improve food security, increase social equity, restore degraded environments, contribute to our zero-carbon future, and provide economic prosperity for our businesses and economy. The Covid-19 epidemic created a financial and social crisis that has exposed deep cracks in the current food system as poorer families ran short of food at the same time as food surpluses piled up when the food service sector ground to a halt<sup>(28)</sup>. However, this Covid pause and economic re-boot provides an ideal time to reshape our food systems to meet our needs in the 21st Century.

The Expert Panel strongly recommended that the Government develops a long-term, multi-sectoral National Food Systems and Nutrition Strategy with clear outcomes and indicators **to improve sustainability, food sovereignty, health, and equity and to honour the rights of Māori** under the Treaty of Waitangi. The Strategy needs to have clear outcomes including SMART targets and an implementation plan with clear indicators and a robust evaluation strategy. The Expert Panel at the workshops discussed the need for food system integration and addressing food security and environmental sustainability. The previous 2015 Childhood Obesity Plan<sup>(29)</sup> was not comprehensive enough to incorporate indicators for an improved food system, and appears to have been neglected since its conception.

New Zealand has previously shown leadership in this area, for example, with the Healthy Eating Healthy Action strategy<sup>(30)</sup> and its associated implementation plan. The UK Food Research Collaboration have published a Food Policy Guidance Note that highlights the need for food policy to be co-ordinated across Government proposing **a cross-government committee** on the food system to take responsibility for co-ordinating food policy<sup>(31)</sup>. The UK are developing a National Food Strategy with an independent review of the entire food system, set to be published in 2020<sup>(32)</sup> and the European Union is currently drafting a Farm to Fork Strategy for Sustainable Food as part of the European Green Deal<sup>(33)</sup>. Canada has a comprehensive Healthy Eating Strategy<sup>(34)</sup>, including strengthening labelling and claims, improving nutrition quality standards, reducing sodium in the food supply, supporting increased access to and availability of nutritious foods and comprehensive marketing restrictions.

### 1a. Science input

A National Food Systems and Nutrition Strategy should be guided and monitored by a **Food and Nutrition Scientific Committee** who work with the Ministerial Science Advisors to ensure that policies related to food and nutrition are evidence-based and equitable, and that an implementation plan is monitored and evaluated. The Strategy needs to be developed across Government sectors with many government departments and crown entities involved in making decisions that affect the food system, as shown in Figure 7. Currently, there is no dedicated department, minister or framework to ensure all the different elements of food policy work together.

### 1b. Food in national strategies

Improving the healthiness of food environments and reducing obesity and diet-related NCDs requires integrated action by government across a wide range of effective policy areas and infrastructure support systems. Current strategies, such as the Child and Youth Wellbeing Strategy contain minimal policies to adequately address childhood obesity. Therefore, alongside the proposed strategy the Expert Panel recommends that the Government ensures that the implementation plans for existing relevant Government actions such as the Child and Youth Wellbeing Strategy<sup>(35)</sup> and the Child Poverty Reduction Act 2018<sup>(36)</sup> address the national needs and priorities to improve food environments, beyond Healthy Active Learning<sup>(37)</sup> which provides resources for health promotion in schools.

## 2. Sufficient income

Health is best served when households have enough resources to make their own decisions about healthy eating. This is only possible if low income households have sufficient disposable income so they can **afford a healthy diet without relying on grants, food parcels and other charitable food**, which erodes dignity and is not sustainable. The 2015/16 Health Survey<sup>(38)</sup> found one in five children (19.0%) experienced severe to moderate food-insecurity with 40% of children in low-income households (gross annual income of ≤ \$50,000) living in food-insecurity. Households with food insecurity are likely to struggle to meet competing demands (e.g., food, housing and health care) as a result of limited financial resources. Children in food-insecure households had poorer parent-rated health status, poorer nutrition, higher rates of overweight or obesity, and a higher prevalence of developmental or behavioural difficulties<sup>(38)</sup>. The post-Covid fiscal stimulation packages and re-configuring of the economy creates the opportunity to build a country with a fairer distribution of its wealth to the benefit of all its citizens.

## 3. Healthier Food Environments

### 3a. Regulate food marketing to children

Government-led, comprehensive, and enforceable marketing restrictions are required to effectively reduce the exposure to, and power of, marketing to children<sup>(27,39)</sup>. This is critical to addressing the high levels of obesity in New Zealand's children and adolescents<sup>(24)</sup>. Children's food preferences, purchase requests, and consumption patterns are influenced by food marketing<sup>(40-43)</sup>. Internationally and in New Zealand, self-regulation by industry has not led to reductions in the overall exposure of children to unhealthy food marketing<sup>(44)</sup>. A recent study has found that the New Zealand Advertising Standards Authority self-regulatory system is not an effective, transparent, or accountable regulatory regime<sup>(27)</sup>.

The Panel considered **restricting marketing through broadcast media, non-broadcast media and in children's settings**, such as within schools and early childhood education services and around schools ('school food zones'). In addition, company and brand advertising (e.g. sponsorship) was recognised as an issue that needs urgent consideration, as this is a marketing loophole that companies exploit. The Panel considered that children up to the age of 18-years should be protected, in line with the United Nations Convention on the Rights of the Child<sup>(25)</sup>, and that a robust evidence-based classification system, such as the WHO Nutrient Profile Model<sup>(26)</sup> should be used as the basis for defining what foods and beverages are subject to the restrictions.

Internationally, a range of countries and regions have restricted marketing of unhealthy foods to children and adolescents. For example, in 1980, Quebec banned all advertising of any products to children aged under 13 years<sup>(19)</sup>. Chile's regulations prohibit unhealthy food marketing to children under 14 years through any medium including broadcast, websites and product packaging<sup>(19)</sup>.

### 3b. Substantial (e.g. 20%) levy on sugary drinks

The UK is among 46 jurisdictions that have implemented a health levy (or an excise tax) on the sugary drinks industry and found that it substantially reduces consumption of these unhealthy products, especially among people with less disposable income<sup>(45)</sup>. This policy also has an immediate effect of stimulating the industry to lower the sugar content of their beverages. This strategy has been a priority recommendation from the Expert Panels in 2014, 2017 and 2020. Many countries **recycle the revenue from the levy for improving population health** (e.g., Mexico, Hungary, French Polynesia)<sup>(19)</sup>. The WHO<sup>(46)</sup> has recommended a sugary drinks levy as a tool to tackle obesity and NCD and a 20% levy in New Zealand would generate about \$40 million in revenue per year which could be used for health promotion and healthy food subsidies<sup>(47)</sup>. Public support for this policy in New Zealand is high at 67% in a 2017 poll<sup>(48)</sup>.

There is more objective evidence for the effectiveness of this action than any of the other strategies to reduce consumption of unhealthy foods<sup>(45,47)</sup>. A reduction in consumption of sugary drinks can lead to a reduction of obesity and improved oral health and assist to reduce health inequalities<sup>(49,50)</sup>.

### 3c. Mandatory Health Star Rating

The uptake of the Health Star Rating (HSR) displayed on front-of-pack of food products has been slow. An estimated 25% of eligible packaged foods and beverages displayed the HSR label in 2019 and these were selectively displayed on healthier products (personal communication, University of Auckland). A comprehensive 5-year review of the HSR took place in 2019<sup>(51)</sup>. The New Zealand and Australian Health Ministers agreed to continue with the HSR and supported changes to the algorithm but declined to agree to the overwhelming public health submissions to **make the system mandatory**.

The Expert Panel strongly recommended that the HSR should be mandatory. The Expert Panel considered that waiting another five years before a further decision was made about whether to make the system mandatory was far too long and unjustified. New Zealand consumers deserve a proper, effective front of pack labelling system as a fundamental right of consumers to know the healthiness of the food they are purchasing.

### 3d. Healthy food in schools and early childhood education services

Healthy food and beverages in all early childhood education centres and schools would provide a powerful platform for healthy eating in childhood and throughout life. This has been a recurring priority from the Expert Panels in 2014, 2017 and again in 2020. The Healthy Active Learning initiative that began in 2020 and the new boost for free school lunches in the 2020 Budget provide the much needed stimulus to have all school food, whether provided or sold or



used for fundraising, meeting Ministry of Health standards (at least 75% ‘everyday’ foods and no ‘occasional’ foods). The Ministry of Education’s support for the **requirement for all schools to implement a healthy food policy** will be central to achieving this goal. When implemented successfully, school food policies have been found to be beneficial to students’ nutritional and educational outcomes<sup>(52)</sup>. In Australia, several states have implemented mandatory nutrition standards in schools<sup>(19)</sup>.

### 3e. Food Reformulation Targets

Reformulation of the composition of certain foods to be healthier can be an effective way to improve nutrition without requiring a behavioural change on the part of the consumer. The Panel recommends a two-tier system for **reducing sodium and added sugar** in key food categories. First, setting mandatory maximum levels will remove the products with the highest levels of sodium and added sugar in product categories. Second, setting and monitoring targets for voluntary reductions in sales-weighted averages in key food groups creates a collective target. This aims to bring down the average for sodium or sugar in the category.

Other countries have set reformulation targets for sodium and sugar in food products. For example, Argentina and South Africa have specified, in law, mandatory maximum levels of sodium in a range of food categories<sup>(19)</sup>. The UK salt reduction programme initiated in 2003/04 has led to reductions in the salt content of many processed foods consumed in the home, and out-of-home<sup>(53)</sup> and a significant (15%) reduction in urinary sodium levels<sup>(54)</sup>. The UK provides the main international example for reducing the sugar content of food groups.

## 4. Infrastructure Actions

### 4a. Nutrition Surveys

What gets measured, gets managed. When unhealthy diets are one of the biggest causes of preventable death and illness in the population, we need to measure dietary intake and behaviours to understand how to improve the health of the population. The most recent nutrition survey on children was conducted 18 years ago in 2002, and 12 years ago in adults in 2008/09. The size of the nutritional problems in the population warrant **up-to-date data on dietary intake and nutritional status**. Surveys are essential to develop, monitor and inform health and nutrition policies, guidelines and services and to design appropriate interventions. The data are used for dietary modelling to enable risk assessment and to use as the evidence-base for the development of food environment regulations. Mechanisms and funding plans for regular adult and child nutrition surveys in the future are required to ensure there is not such a long gap between surveys.

### 4b. Monitor food environments

A food environment where healthy food is accessible and affordable is essential to reduce NCDs<sup>(4)</sup>. Apart from food composition, there is no regular monitoring of the New Zealand food environment or food provision in public sectors. The Government should regularly monitor food environments **for health, equity and sustainability** including food promotion to children and nutritional quality of food in schools and other public sector settings.

### 4c. Healthy sustainable Eating and Activity Guidelines

The Panel agreed on the need to revise the current Eating and Activity Guidelines to include sustainable eating patterns. The guidelines need to **incorporate social, environmental and cultural dimensions of eating**. This holistic approach to food and eating guidelines is becoming common in other countries, such as Canada, and was also prioritised by the 2017 panel. Research investigating the transition toward a healthier, more climate-friendly food system in New Zealand, found that shifting population-level consumption to align with the NZ Dietary Guidelines with a focus on whole-plant-based foods, could bring about diet-related emissions savings, large health gains and health care system cost savings<sup>(55)</sup>.

However, without an effective communication plan, the Guidelines will be ineffective. The Guidelines need to be actively implemented and funding increased to the Health Promotion Agency to promote all aspects of the Eating and Activity guidelines.

### 4d. Commercial conflicts of interest

The Expert Panel called for higher governance standards for food policy development. They acknowledged that the main reason WHO-recommended food policies are not implemented is because of the pressure on Government from the processed food industry and their lobby groups. This pressure is particularly effective when industry representatives engage with Government during the early stages of policy development. New Zealand has robust procedures to manage personal conflicts of interest, where the representative personally stands to gain or lose from the policy outcome. However, there are no procedures to manage commercial conflicts of interest where the person’s company stands to gain or lose from the policy outcome.

The Expert Panel also recommended that **transparency measures** need to be introduced so that consultation with the food industry can continue without it exerting undue influence on Government policy development. Health Canada has an openness and transparency policy<sup>(56)</sup> which means that a copy of all communications received or meeting minutes held with external parties about the policy must be published online. This helps reduce the undue influence on Government into their nutrition policy making.







Figure 7: Government entities with a role in food policy

Table 3: Description of Government entities with a role in food policy

Key Government entities	Descriptions
Ministry for Primary Industries	Main policy making department for New Zealand's primary industries, including food. Functions include providing national direction on ensuring the food we produce is safe, enabling international market access for New Zealand's primary products, and representing the interests of the New Zealand primary sector in international trade policy and standard-setting forums.
Ministry of Foreign Affairs and Trade	Main policy-making department on international food trade, overseas aid (including food aid), overseas agriculture, and the Sustainable Development Goals.
Ministry of Health	Main policy-making department on diet-related health; nutrition-related health inequalities, planning and funding public health and monitoring the performance of District Health Boards.
Health Promotion Agency	Main communications agency to promote health, including healthy diets
Ministry for the Environment	Main policy-making department on environmental policy and provides national direction on urban (eg food density zoning laws) and rural planning (e.g., land use consents) through National Policy Statements and National Environment Standards. Also focuses on climate change, fresh water, marine, land, waste, soil, air, water, sea quality.
Ministries of Business, Innovation and Employment	Main policy-making department managing food and beverage industry investment, consumer protection, immigration (including migrant workers for food supply chain), business, industrial strategy, employment, energy, science, research and innovation (all with food relevance).
Food Standards Australia New Zealand	Develops and administers joint Australia and New Zealand food standards; explain food issues e.g., labelling, additives, chemicals; consult with the community about food safety issues; help food businesses understand the Food Standards Code.
Ministry of Education	Main policy-making department on education, skills and curriculum, with role as food educator and food provider.
Office of the Prime Minister's Chief Science Advisor	Provides strategic advice across sectors and serves as an accessible conduit between the science community and government.
Local Government	Ensures public services are responsive to the social, economic, environmental and cultural well-being needs of their communities with a particular role in zoning law, district or regional planning and community food supply initiatives for example.
District Health Boards	A role to improve, promote and protect the health of people and communities, including planning and delivering services in their area.
The Treasury	Overall control of government spending.
Department of Prime Minister and Cabinet	Overall policy oversight and coordination. Contains the Child Wellbeing and Poverty Reduction Group.
Te Puni Kokiri - Ministry of Māori Development	Input into major food policies as they relate to Māori.
Ministry for Pacific Peoples	Input into major food policies as they relate to Pacific People.
Ministry of Social Development	Main policy-making department on welfare and pensions, supporting people and whānau in food poverty.

Supporting government entities	Descriptions
Health Research Council of New Zealand	Sets priorities for research and funds research including on food and nutrition.
Broadcasting Standards Authority	Decides complaints about broadcasters; publish and research broadcasting standards.
Sport NZ	Oversees sports sponsorship.
Commerce Commission	Enforce laws that promote competition and protect consumers in New Zealand.
National Ethics Advisory Committee	Provides ethical advice on issues of national significance in respect of health and disability, including characteristics of a fair food system delivering nutritional outcomes.
Crown Research Institutes	AgResearch enhances the value, productivity and profitability of New Zealand's pastoral, agri-food and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand. Plant and Food Research looks at enhancing the value and productivity of New Zealand's horticultural, arable, seafood and food and beverage industries to contribute to economic growth and the environmental and social prosperity of New Zealand. Institute of Environmental Science Research - ESR's science lies behind the decisions that safeguard people's health, protect our food-based economy, improve the safety of our freshwater and groundwater resources.
Health and Disability Commissioner	Works with clinicians, providers and consumers to improve health services including dietary advice and interventions.
The Office of the Children's Commissioner	Advocates for the interests of young people, ensuring the voices of children are heard in policy making.
Ministry for Culture and Heritage	Funds Broadcasting Standards Authority, NZ on Air and Sport NZ.
Ministry of Transport	Main policy-making department on transport, with role in supporting infrastructure for food distribution and public transport (including for food workers and customers).
Department of Corrections	Main department with role as food provider to prisons.
Department of Internal Affairs	Conduit for Local and Central Government.
State Services Commission	Sets standards for public servants and policy making, including the management of conflicts of interest for food policies.
New Zealand Customs Service	Provides border control and protects the community from potential risks related to food arising from international trade and travel, as well as collecting duties and taxes on imports to the country.
Ministry of Housing and Urban Development	Main policy-making department on housing, built environment and urban development.



# 6. Conclusions

Effective government policies and actions are essential to increase the healthiness of food environments and to reduce the high levels of obesity, diet-related NCDs, and their related inequalities. Internationally, there is wide recognition of the need for government intervention. New Zealand is lagging behind other nations in implementing several major policies to improve food environments and reduce levels of obesity and diet-related NCDs. The Expert Panel was very clear that for any progress to be made, there needs to be **clear leadership** and development of a multi-sectoral National Food Systems and Nutrition Strategy guided by a Scientific Committee. The Experts expressed concern about food security, prioritising the policy action of ensuring households receive an adequate income to enable autonomy to make healthy food choices.

New Zealand has clearly set the international benchmark in one area by applying a nutrient profiling system to prevent unhealthy foods carrying health claims. New Zealand is at world standard in other areas such as nutrition information panels and monitoring systems for NCDs. Several initiatives are showing good progress such as the Healthy Food and Drink Policy, platforms for interaction and community-based approaches (for example, Healthy Families NZ). There are some promising existing and new initiatives such as Health Star Rating system and Healthy Active Learning, however without mandatory regulation, these will not be as effective as they could be.

Of major concern was the need for another national nutrition survey, with the previous Child and Adult Nutrition Surveys conducted 18 and 12 years ago respectively. Major policy decisions are being made without an awareness of the nutrition status and food consumption patterns of the population. There continues to be major gaps in implementation for three-fifths of the Food-EPI indicators, especially for implementing restrictions on unhealthy food marketing to children, healthy food policies in schools, fiscal policies to support healthy food choices, supporting communities to limit the density of unhealthy food outlets in their communities (for example, around schools), supporting the food retail and service industry to reduce unhealthy food practices, and ensuring that trade and investment agreements do not negatively affect population nutrition and health.

New Zealand has an excellent opportunity to take the prevention of obesity and diet-related NCDs seriously and invest in highly cost-effective policies and programmes implemented successfully by a large number of countries globally. It will clearly require a much greater government effort than has recently been evident.

The top priority actions are recommended by the Expert Panel for immediate implementation, but all 39 recommended actions are achievable in time, with sufficient government commitment.

We intend to continue to conduct the Food-EPI study, rating the government’s progress every three years towards the end of their term in office to measure progress made towards improving food environments. The Expert Panel hopes that substantial progress will be made by 2023 to bring New Zealand towards the progressive, innovative and world leader in public health that it clearly has the capability to become.

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# Appendix 1: Research approach and methods

The International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS)<sup>(9)</sup> was founded in 2013 to monitor and benchmark food environments, government policies and private sector actions and practices globally.

INFORMAS aims to: (1) develop a global network of public-interest organizations and researchers to monitor, benchmark and support efforts to create healthy food environments and reduce obesity, non-communicable diseases (NCDs) and their related inequalities; (2) collect, collate and analyse data on public and private sector policies and actions, food environments, population diets, obesity and NCDs; (3) compare and communicate the progress on improving food environments against good practice benchmarks between countries and over time; (4) use the results to strengthen public health efforts, particularly by supporting the translation of relevant evidence into public and private sector actions.

INFORMAS complements existing monitoring efforts of the World Health Organization (WHO), such as the global NCD Monitoring Framework, which does not focus on food environment indicators<sup>(10)</sup>. INFORMAS produces evidence that is highly policy-relevant in order to help increase the accountability of governments and the private sector through the provision of regular direct evidence on their levels of action or inaction and the healthiness of food environments.

## Methods overview

The purpose of the Healthy Food Policy Index (Food-EPI) tool and process is to monitor and benchmark public sector (national government) policies and actions. It aims to answer the overarching question – How much progress have governments made towards good practice in improving food environments and implementing obesity/NCD prevention policies and actions?

A mixed methods design was used to obtain the ratings of the level of implementation of good practice policies and infrastructure support and to identify and prioritise actions. The methods used to obtain the rating followed the steps outlined in Figure 8.

In New Zealand in 2014 and 2017, Expert Panels were formed after invitations were sent to a wide range of public health experts (academics, researchers and practitioners) and public health non-governmental organisations (including medical associations, professional bodies and service providers). Where possible, these experts were invited to participate in the Food-EPI 2020. Government experts (e.g., experts from different Ministries, Health Promotion Agency and District Health Boards) were also invited to participate in the Food-EPI 2020 workshops. Government experts acted as observers and were there to provide clarification or additional information and did not participate in the ranking survey after the workshops.

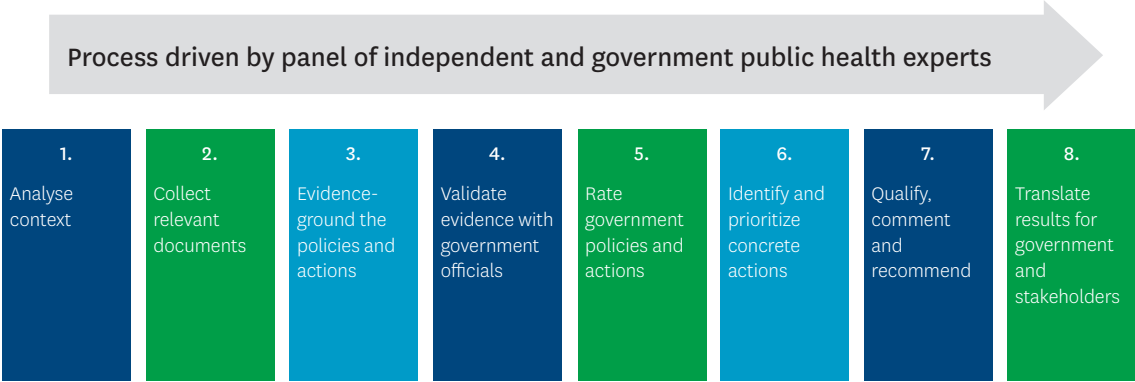


Figure 8 Process for assessing the policies and actions of governments for creating healthy food environments



Development of the Healthy Food Environment Policy Index (Food-EPI)

The Food-EPI was based on a review of the evidence and policy documents and revised by a group of international experts, including experts from low, middle and high income countries as well as senior representatives from the World Health Organisation (WHO) and the Food and Agriculture Organisation (FAO). Evidence-based or expert committee reports from international agencies such as WHO and FAO, national government agencies, non-governmental organisations, professional societies and expert advisory groups were reviewed for their recommendations for improving food environments and population diets<sup>(77)</sup>. The WHO approach to strengthening healthy systems<sup>(57)</sup> was adapted for incorporation into the infrastructure support component of the tool. The structure of the Food-EPI tool is provided in the body of the report (Figure 2) and the process that was used to implement the tool in New Zealand is outlined below.

Piloting and refining the Food-EPI tool and process

The Food-EPI tool and processes were pilot tested and revised for New Zealand and international implementation in 2013<sup>(20)</sup>. The main elements of the piloting process were to:

- collect evidence on the extent of government implementation of different policies and infrastructure support systems in New Zealand and validate with government officials,
- present the evidence to informed independent public health experts and NGO representatives in a workshop setting,
- ask experts participating in the workshop to rate the performance of their government on the good practice statements covering the policy and infrastructure support domains,
- ask experts participating in the workshop to evaluate
  - the level of difficulty of rating each indicator; and
  - the appropriateness and completeness of the evidence presented.

For the pilot study, two whole-day workshops were convened. Thirty-nine independent public health experts and NGO representatives rated the good practice statements within the 7 policy and 7 infrastructure support domains. The difficulty of rating the indicators and the comprehensiveness of the evidence base was also assessed by the experts. Based on their assessments and comments and the inter-rater reliability scores (overall score of 0.85, CI=0.81-0.88), the main changes to the Food-EPI tool included strengthening the leadership domain, removing the workforce development domain (because professional training was mainly outside the government jurisdiction), strengthening the equity focus, and adding community-based programmes and government funding for research on obesity and NCD prevention as good practice indicators<sup>(20)</sup>. The modified tool and the revised good practice statements and evidence were used in the baseline Food-EPI study in April-May 2014 and in a range of other countries globally.

Food-EPI– rating the levels of implementation in New Zealand

For each Food-EPI (2014, 2017, 2020) evidence documents (2020 document available in online Appendix 1) on the current extent of implementation of policies and infrastructure support in New Zealand were compiled from policy documents and budgets retrieved from websites and through Official Information Act requests. The evidence was comprehensively documented and returned to government officials to verify its completeness and accuracy. International best practice exemplars (benchmarks) were extracted from the World Cancer Research Fund NOURISHING framework and from other sources detailed in online Appendix 1. In addition, a summary of evidence of implementation, international best practice benchmarks and progress since 2014 and 2017 was compiled (available in online Appendix 2).

In 2014, two workshops were convened to obtain ratings for the level of implementation for each good practice indicator. Prior to the rating workshops, the experts were provided with a written summary of New Zealand evidence on the extent of implementation of policies and infrastructure support and international benchmarks for each indicator.

In 2017 and 2020, the ratings for the level of implementation for each indicator were obtained by an online survey using Qualtrics. The process was changed based on the evaluation of the Food-EPI 2014 by the experts and experience from applying the Food-EPI internationally. The participants were posted (2017) or emailed (2020) the respective evidence documents. In addition, before each indicator, participants were provided with a summary of the evidence (2020 summary in Online Appendix 2) on the extent of implementation in New Zealand, the international benchmarks and progress since 2014, or 2014 and 2017. An example for the first indicator is presented in Figure 9.

In 2017, seventy-one New Zealand-based independent (n=48) and government (n=23) public health experts and representatives from medical associations and NGOs independently scored the degree of implementation of policy

and infrastructure support in New Zealand against international best practice. A total of 47 indicators were rated using Likert scales (1 to 5) comprising 23 policy indicators and 24 infrastructure support indicators. A rating of 1 means between 0 and 20% implementation compared to international best practice and a rating of 5 means between 80 and 100% implementation compared to best practice.

In 2020, due to the Covid-19 pandemic during the online rating process, and the increased workload of public health experts responding to the pandemic, 27 participants completed the online rating. Numerous experts apologised for not being able to respond due to reprioritisation of their time.

The mean rating for each indicator was used to determine an overall percentage level of implementation. These ratings were then categorised into High, Medium, Low, or Very Little, if any levels of implementation based on the following cut-points: >75% = High; 51 to 75% = Medium; 26 to 50% = Low; <25% = Very little, if any.

**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).*

Evidence of implementation by the New Zealand government 2019:

- No food composition targets have been specified by the Ministry of Health (MoH) or the Ministry for Primary Industries for the nutrients of concern (sodium, saturated fat, trans fat, added sugar). However, the MoH funds the Heart Foundation's Food Reformulation Programme, a national programme, that focusses on reducing sodium and total sugar levels in processed foods.
- The Heart Foundation's Food Reformulation Programme is a national programme that has set 44 targets for sodium or sugar across 35 food categories/sub-categories. It's goal is for 80% (sales volume) products achieving the targets. It aims to align with Australian Healthy Food Partnership (which is in the process of formalising its targets).
- As part of the Healthy Kids Industry Pledge, stimulated by MOH, several companies, including the retailer's FoodStuffs and Countdown, set reformulation targets.
- [The Government response to the Food Industry Taskforce on addressing factors contributing to obesity, prioritised the food industry to set and review nutrient reformulation targets.](#)
- FSANZ leads work on the status of trans fats in NZ and decided previously based on 2015 meeting that regulatory intervention is not required and the non-regulatory approach is sufficient to further reduce levels.

International Best Practice Examples (Benchmarks) 2019:

- **UK:** [Reduction programme to remove sugars by at least 20% by 2020.](#)
- **Argentina/South Africa:** Laws on max levels of sodium in a broad range of food categories
- **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.

Summary

**The median rating** by Experts for COMP1 was **3** in 2017.

There is **new evidence of implementation** by the New Zealand Government since 2017.  
The benchmark has not substantially improved since 2017.

Figure 9: Example evidence summary presented to the Expert Panel online



Identifying actions for implementation in New Zealand

In **2014**, public health experts also developed the actions at the same workshops as the rating of implementation. Actions were recommended for 34 of the 42 indicators.

In **2017**, four workshops were organized across the country (Auckland, Wellington, Christchurch and Dunedin) to evaluate the implementation gaps as identified from the ratings, assess progress since 2014, and identify and prioritize concrete actions for implementation by the New Zealand Government. Experts participating in the workshops (n=45 in total) were presented with the distribution of the rating score for each indicator. They discussed the need for any action in relation to the indicator and, if a need was considered, identified actions to improve food environments and population nutrition and reduce NCDs in New Zealand. Actions were proposed for 46 of the 47 indicators. For some indicators, more than one action was proposed. The workshops mostly agreed on the content of the actions to be put forward, but there were some differences. There was a total of 53 actions proposed across the four workshops.

In **2020**, the implementation of the workshop changed due to Covid-19 restrictions on travel and social distancing. One face-to-face workshop was held in Auckland with 10 participants. One videoconference workshop was held via Zoom to replace the planned workshops in the South Island and Wellington with 25 independent participants and four government observers. All public health experts invited to complete the online ratings were invited to the online workshop (expect those who attended the Auckland workshop). At the Auckland workshop, participants decided if an action was required for an indicator, reviewed the 2017 action and the action was accepted, revised or a new action developed. Actions were identified as high or low priority, with high priority actions to be ranked by participants. Due to the restrictions on the time of public health experts during Covid-19, the actions developed at the Auckland workshop were presented to participants in the online workshop. Participants discussed the high priority actions verbally or via the chat feature and revised the action or developed a new action. Then a vote was taken to assess the degree of consensus. Some actions covered more than one indicator, such as the proposed action to develop a long-term, multi-sectoral National Food Systems and Nutrition Strategy. A total of 39 actions were proposed, 22 as high priority (and subsequently ranked by experts) and 17 as low priority.

Prioritising actions for implementation in New Zealand

The Expert Panel members were asked to separately prioritise the importance and achievability of the actions (Table 4). Importance took into account the relative need, impact, effects on equity, and any other positive and negative effects of the action. Achievability took into account the relative feasibility, acceptability, affordability, and efficiency of the action. Participants were asked to consider ‘acceptability to government’ as pertaining to New Zealand governments in general, not the particular government of the day.

Each proposed policy action was ranked from higher to lower importance and achievability. The same process was then applied for prioritizing the proposed infrastructure support actions. Actions with the highest rank received the maximum score while actions ranked at the bottom received a score of 1. Graphs were created to plot importance against achievability. Actions rated highest for both importance and achievability were selected as top priorities.

Importance	Achievability
<b>Need</b> The size of the implementation gap	<b>Feasibility</b> How easy or hard the action is to implement
<b>Impact</b> The effectiveness of the action on improving food environments and diets (including reach and effect size)	<b>Acceptability</b> The level of support from key stakeholders including government, the public, public health, and industry
<b>Equity</b> Progressive / regressive effects on reducing food/diet-related health inequalities	<b>Affordability</b> The cost of implementing the action
<b>Other positive effects</b> (e.g., on protecting rights of children and consumers)	<b>Efficiency</b> The cost-effectiveness of the action
<b>Other negative effects</b> (e.g., regressive effects on household income, infringement of personal liberties)	

Table 4: Criteria for prioritising the recommended actions: Importance and Achievability

In **2014**, the actions were prioritised in a separate process after the workshops. Experts were provided with an Excel spreadsheet and asked to prioritise the importance of each action within the group of 15 recommended actions, by allocating 75 points across the 15 actions. The same process was used to prioritise the achievability. The 19 infrastructure actions were prioritised in the same way but by allocating 95 points.

In **2017**, the actions were ranked at the end of each workshop. For each action, the scores were summed per workshop and expressed as a percentage out of 100 (normalization since the number of experts in each workshop was different) and for each action the average score across workshops was calculated for both importance and achievability.

In **2020**, the actions were developed at the Auckland workshop, and then revised at the online workshop. The revised actions were prioritised by participants from both workshops using an online survey (Qualtrics) sent to participants a week after the online workshop. Thirty-one of the 35 workshop participants (independent experts) completed the online ranking of actions.





Full report is available at [www.informas.org](http://www.informas.org)

