PEN
Policy Evaluation Network

Policies for tackling obesity and creating healthier food environments in Ireland: Food-EPI 2020

Current policies & priority actions

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FOOD EPI

JPI a healthy diet for a healthy life

INFORMAS Benchmarking food environments

HRB An Bord Taighde Sláinte Health Research Board

Preface

Suboptimal diet is responsible for an enormous burden of suffering and premature deaths globally. In Ireland, as in other developed countries, the impact of poor diet on the burden of non-communicable disease (NCD's) is immense. Poor diet is the single biggest risk factor for NCDs, exceeding the combined effects of tobacco, alcohol, and physical inactivity.

This highlights the urgent need for effective population level interventions to promote healthier diets globally and in wealthy developed countries such as Ireland. In the past, our efforts to tackle obesity and promote healthier diets have relied heavily on health education strategies and counselling interventions in clinical settings.

Unfortunately, these high-risk interventions that assume a high level of individual agency - a high level of control over our dietary choices, are of limited effectiveness. It is now clearly understood that to prevent diet-related chronic disease, we need to understand and address the "foodscape", the wide range of interconnected factors such as food production, processing, marketing, and distribution, that characterise our food system, and largely determine our dietary intakes.

On behalf of the School of Public Health, UCC and the HRB Centre for Health & Diet Research, I am delighted to welcome this report which presents the results of the first Irish Healthy Food Environment Policy Index (Food-EPI). Food-EPI is an initiative of the INFORMAS Network (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support). Dr Janas Harrington working with colleagues in the School of Public Health and with Dr Stefanie Vandevijvere from the Scientific Institute of Public Health (Sciensano) in Belgium have assessed the Irish Government's level of implementation of policies and infrastructure support for improving the healthiness of the food environments in Ireland and benchmarked our performance against international best practice.

We are grateful to all of our colleagues in Ireland and internationally who have contributed to this landmark report. I hope the findings from this work will help change the discourse on food and health in Ireland and ultimately drive system level change on food policy towards health and environmental sustainability at national and local government level and in the private sector.

Professor Ivan Perry
Dean,
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Executive Summary

Governments worldwide recognise the importance of a good diet for health and wellbeing and the prevention of chronic disease, including obesity. The prevalence of obesity, particularly amongst children, represents one of the biggest public health challenges globally[1,2]. In Ireland, one in five primary school children are overweight or obese[3]. Supporting and encouraging people to respond more healthily to an environment which promotes obesity is essential to reduce the burden of disease and adverse economic costs associated with obesity[2]. It is well established that food choices are heavily influenced by the food environment[2]. One of the main drivers of the obesity epidemic has been identified as the food system, which includes increased supply of cheap, palatable, energy dense foods; increased food mobility leading to increased distributions and convenience and more persuasive and pervasive food marketing.

Monitoring the level of implementation of government food policies and benchmarking against international best practice is imperative for progress towards better nutritional health and to create food environments that foster healthy living and address the specific needs of vulnerable groups in Ireland. Thus, a concerted effort by policy makers to develop robust policies is necessary to reverse the trend of deterioration of our food environments and move to establishing healthier food environments for all.

Approach

This report presents the results of the first Irish Healthy Food Environment Policy Index (Food-EPI). Food-EPI assessed the Irish Government's level of implementation of policies and infrastructure support for improving the healthiness of the food environments against international best practice. The Food-EPI is an initiative of the INFORMAS Network (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support) and was conducted between January 2018 to June 2020 with a panel of independent and government public health experts. The Food-EPI Ireland was conducted in collaboration with research groups from other European countries as part of the JPI Policy Evaluation Network (PEN) (https://www.jpi-pen.eu/).

The Food- EPI is a six step process:

1. **Identify all food environment policies in place in Ireland.**
2. **Validate and verify this information with Government officials & establish an expert panel.**
3. **Conduct an online survey with the expert panel to rate the implementation of the Irish policies against international best practice.**
4. **Host an expert panel workshop to discuss the policy rating, to identify policy and infrastructure support gaps and to recommend potential actions to address these gaps.**
5. **Refine the identified actions for policy and infrastructure support.**
6. **Conduct a second online survey with the expert panel to prioritise the identified actions based on importance, achievability, and impact on social inequalities.**

Expert Opinions

The expert panel consisted of 20 representatives from academia, the Food Safety Authority of Ireland, Safefood, HSE, and charity organisations. The panel rated the extent of implementation of policies on food environments and infrastructure support by the Irish Government, using an extensive collection of evidence validated by government officials.

The experts identified and prioritised actions needed to address critical gaps in government policies and infrastructure support and reduce the rates of NCD's in Ireland, with respect to health inequalities. In total 22 policy actions and 18 infrastructure support actions were recommended.

Results

The assessment of the implementation levels of priority policies and infrastructure support showed some areas of strength. Across the infrastructure support domains, Ireland rates well against international benchmarks in ensuring the public has access to nutritional information and key documents through freedom of information legislation.

Ireland is also at international best practice in monitoring overweight and obesity prevalence in the population and occurrence rates for the main diet-related NCDs and their risk factors. Implementation of evidence-based, food-based dietary guidelines, and mechanisms to co-ordinate multi-sectoral action to ensure policy coherence of diet-related NCD prevention policies. Ireland also rated well for implementing procedures to support evidence-informed policy-making.

However, of concern was the high number of food environment policies which were rated as having 'low' implementation compared to best practice, including:

I. the need for greater emphasis on reducing the marketing of unhealthy foods to children on social and non-broadcast media,

II. limited use of fiscal policies to support healthy food choices,

III. limited support for communities to reduce availability and accessibility of unhealthy food outlets,

IV. limited support for private companies to promote healthy foods in their workplaces,

V. provision of income support programs for healthy foods,

VI. the need for evidence-informed labelling for front-of-pack and menu boards,

VII. the need for food composition targets/standards for processed foods.

Four implementation gaps were identified relating to government policy on key aspects of the food environment:

I. a lack of government action on the introduction of targets for out-of-home meals,

II. failure to restrict the promotion of unhealthy foods to children on food packaging,

III. no discernible progress towards establishing public sector procurement standards for food service activities to provide and promote healthy food choices,

IV. failure to implement policies that encourage availability of outlets selling nutritious foods.

Priority recommendations

The government is strongly urged to act on the recommended priority actions, with particular reference to 5 policy actions and 5 infrastructure support actions, to improve the health outcomes of Irish citizens, with particular focus on those in disadvantaged or vulnerable groups.

Five policy actions and five infrastructure support actions were identified as having the highest priority for implementation by the Irish Government.

Policy Actions Necessary to Support Healthy Food Environments

1. School Food Policies
Implement nutrition standards for all schools including tuck shops operating therein. All school-based health promotion should be delivered by health professionals. An Inter-school nutrition forum should be established with support by appropriate governing bodies.
2. Income Support
Establish a committee with a cross-governmental structure to monitor and evaluate food-related income support programmes for vulnerable population groups.
3. Healthy Food Subsidies
Ringfence revenue from tax on unhealthy foods to improve public health initiatives and provide healthy food subsidies targeted at disadvantaged groups in the community.
4. Zoning Laws
Introduce zoning legislation "No Fry Zones" to prohibit the placement of unhealthy food outlets within 400m of primary and secondary schools.
5. Public Sector Healthy Food Choices
Implement a comprehensive policy on nutrition standards for food and beverage provision in public sector. Monitoring of existing policies and guidelines for effectiveness in provision and promotion of healthy food choices should be conducted.

Infrastructure Support Actions Necessary to Support Healthy Food Environments

1. Transparency in Policy
Create a committee which monitors implementation of policies and procedures that ensure open and transparent approaches in the development and reviewing of food and nutrition policies and within the legislative process.
2. Political Support
An Taoiseach to demonstrate visible leadership and commitment to the "Obesity Policy and Action Plan 2016-2025 (OPAP)" and commit to garnering cross-party support for the policy.
3. Engagement Platforms with Civil Society
Establish a formal platform between government and civil society - encompassing community groups, NGOs, academia, and the Citizens' Assembly (public), to increase engagement and participation in the planning and implementation of food and public health policies.
4. System-based Approach
Establish a forum consisting of local and national government, policy experts, public health experts and academia to facilitate information-sharing and knowledge transfer. The forum would identify priority areas and implement evidence-based policies to improve the food environment and health outcomes.
5. Health Impacts in Policy
The government to prioritise an evidence-informed national food and nutrition policy with explicit consideration given to the health impacts on vulnerable groups in Ireland and the determinants of health. This requires cross-departmental commitment to reducing health inequalities.

Food Provision, Prices, and Retail were three significant areas within the food environment identified for immediate action by the government. The expert panel has advocated for the implementation of nutrition standards in schools and the public sector to ensure the promotion and provision of healthy food choices. The experts expressed concern about food poverty, prioritising government action that would see healthy food subsidies and the establishment of a committee with cross-departmental support to supervise food-related income support programmes, both targeting disadvantaged communities. The introduction of zoning legislation to prohibit fast food outlets from opening near schools must be a commitment of the government.

The Irish experts were clear that for meaningful progress to be made, there must be clear leadership by An Taoiseach with cross-party support for the national obesity policy "A Healthy Weight for Ireland: Obesity Policy and Action Plan, 2016-2025". The Obesity Policy and Action Plan aims to assist individuals achieve better health, with particular focus on reducing levels of overweight and obesity. The government's commitment to act on the prevention of overweight and obesity is documented in the 'Ten Steps Forward'. The actions set out within the steps correspond with some of the priority actions proposed by the Food-EPI experts. For example, creating healthier school food environments, guidelines for urban development planning to address the obesogenic environment, food promotion and government leadership that will engage and co-ordinate multi-sectoral action[3].

Other infrastructure supports prioritised by the experts include transparency during the formulation and implementation of food and nutrition policies and greater engagement between

government and civil society to inform policy development. Experts recommend the creation of a forum for the collaboration between public health experts, policy makers, academics, and government to facilitate knowledge transfer and identify priority evidence-based policies to improve the food environment. The final priority actions include a national nutrition policy for Ireland with explicit consideration by government given to the health impacts on vulnerable groups, and guidelines to ensure all food-related policies are aligned to assess health outcomes and reduce health inequalities.

The current health status of people living in Ireland, lifestyle factors and inequalities in health outcomes must be urgently addressed through food environment reform. The food environment is greatly shaped by the policy environment, and policy action is needed by government to create healthier food environments. Ireland has an excellent opportunity to improve the diets of the Irish population, prevent obesity and diet-related NCDs, and the associated rising healthcare costs by investing in highly cost-effective policies and programmes, which have demonstrated success in a number of countries. This will clearly require a much greater government effort than has been evident to bring Ireland in line with international standards for a healthy food environment. Progressive, evidence-based, and equitable food policies must be adopted to tackle the unhealthy and unequal food environments in Ireland.

Figure 1: Priority actions for a Healthy Food Environment in Ireland

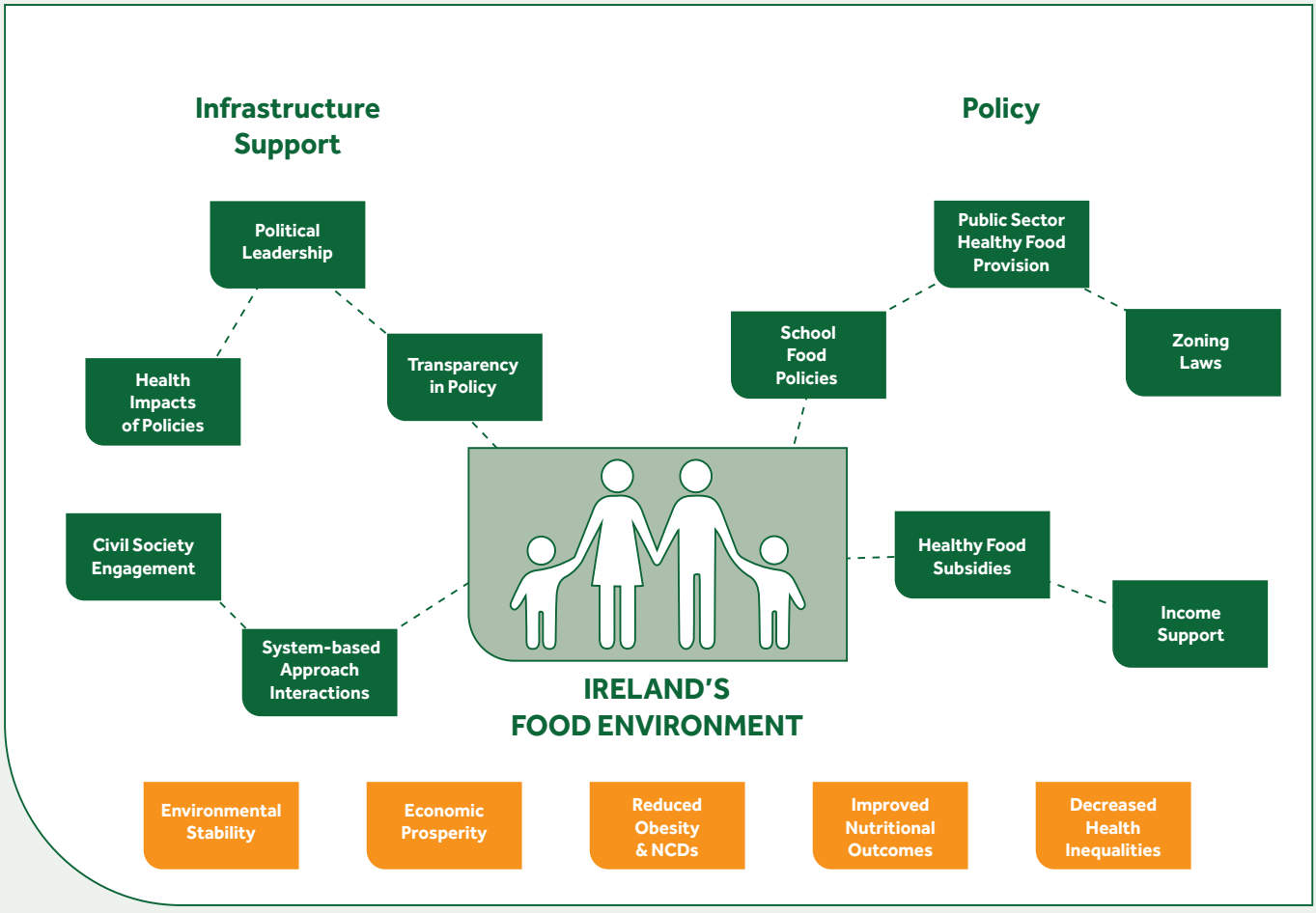

Table of Contents

Preface . . . 3
Executive Summary . . . 4
Approach . . . 4
Expert Opinions . . . 5
Results . . . 5
Priority Recommendations . . . 6
Policy Actions Necessary to Support Healthy Food Environments . . . 6
Infrastructure Support Actions Necessary to Support Healthy Food Environments . . . 7
List of abbreviations . . . 11
Acknowledgements . . . 11
Definition of Terms . . . 12

1. Introduction . . . 14
1.1 Why do we need to improve Ireland's food environments? . . . 14
1.2 Are there inequalities in terms of dietary risks? . . . 15
1.3 Who can help improve the healthiness of food environments and population diets? . . . 16
1.4 What needs to change? . . . 16

2. How was the level of implementation of government policies and infrastructure support assessed? . . . 17
2.1 What tool was used to measure implementation? . . . 17
2.2 Adaptation of the tool . . . 21
2.3 Social Inequalities . . . 21
2.4 Collection of Evidence . . . 21

3. How was the level of implementation of government policies and infrastructure support assessed? . . . 23
3.1 Who conducted the assessment? . . . 23
3.2 How did they conduct the assessment? . . . 23

4. How well is the Irish government performing compared with international best practice? 25
4.1 High Implementation . . . 25
4.2 Medium Implementation . . . 25
4.3 Low Implementation . . . 27
4.4 None or very little Implementation . . . 27

5. What process was used to prioritise actions? . . . 28

6. Which actions did the Expert Panel prioritise for implementation by the Irish Government? 30

7. Socio-economic Inequalities and the Irish Food Environment . . . 33
7.1 How does the Food Environment Indicators impact on Socio-economic Inequalities according to Irish Experts? . . . 34
7.2 How were the recommended actions prioritised? . . . 35
7.3 Which actions did the Expert Panel prioritise for implementation by the Irish Government when equity was considered? . . . 35

8. Top 10 Recommendations . . . 38
8.1 Policy Actions Necessary to Support Healthy Food Environments . . . 38
8.2 Infrastructure Support Actions Necessary to Support Healthy Food Environments . . . 39
9. What did Irish Experts think about the Food-EPI process? . . . 41
10. What are the key implications for food policy in Ireland? . . . 42
11. What are the next steps? . . . 42
12. References . . . 43

Appendix 1: PEN WP1.1 Partners . . . 46
Appendix 2: Expert Panel . . . 47
Appendix 3: Top Prioritised Policy Actions (weighted & non-weighted) . . . 48
Appendix 4: Top Prioritised Infrastructure Support Actions (weighted & non-weighted) . . . 49

Figures

Figure 1: Priority actions for a Healthy Food Environment in Ireland . . . 8
Figure 2: Component and domains of the Healthy Food Environment Policy Index tool . . . 18
Figure 3: The Food-EPI Policy Domains . . . 18
Figure 4: The Food-EPI Infrastructure Support Domains . . . 20
Figure 5: Steps of the Food-EPI Ireland 2020 process . . . 22
Figure 6: Level of implementation of food environment policies and infrastructure support by the Irish Government . . . 26
Figure 7: Importance and achievability of recommended actions (top priorities in green) for the Irish Government: Policy actions . . . 32
Figure 8: Importance and achievability of recommended actions (top priorities in green) for the Irish Government: Infrastructure Support actions . . . 32
Figure 9: Level of implementation of food environment policies and their impact on socio-economic inequalities . . . 34
Figure 10: Importance, achievability and equity of recommended actions (top priorities in orange) for the Irish Government: Policy actions . . . 37

Tables

Table 1: Example of International Benchmarks . . . 23
Table 2: Criteria for 'Importance' and 'Achievability' elements . . . 29
Table 3: High priority recommended actions for the Irish Government: Policy actions . . . 30
Table 4: High priority recommended actions for the Irish Government: Infrastructure Support actions . . . 31
Table 5: Criteria for 'Equity' element . . . 35
Table 6 High priority recommended actions for the Irish Government: Policy actions (importance, achievability and equity) . . . 36

List of abbreviations

BMI: Body Mass Index

CVD: Cardiovascular Disease

EU: European Union

Food-EPI: Food Environment Policy Index

HSE: Health Service Executive

INFORMAS: International Network for Food and Obesity/NCDs Research, Monitoring and Action Support

IRR: Inter-rater Reliability

JPI-HDHL: Joint Programming Initiative - A Healthy Diet for a Healthy Life

NCD: non-Communicable Disease

NGO: Non-Government Organisation

OPAP: Obesity Policy and Action Plan

PEN: Policy Evaluation Network

SES: Socio-economic Status

WCRF: World Cancer Research Fund

WHO: World Health Organization

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Definition of Terms[1]

Benchmarks	Benchmarks or "best practice exemplars" are the tools through which health promoting environments are created and assessed. They are comprehensive examples of policy implementation worldwide and are chosen based on their strength (e.g. external validated measures such as using independent nutrient profiling criteria) and comprehensiveness (e.g. including a broad range of age groups, food groups, physical activity measures, media, settings, or regions)[4].
Domain	Components of the political system and/or settings organized around substantive issues[5]. Policy domains differ depending on the target health goal/behaviour i.e. food or physical activity. Policy domains include settings e.g. health, agricultural, industrial, trade, transport, education, urban planning, economic, research & innovation, and environment. Within policy domains, the context needs to be considered such as geographical, epidemiological, socio-cultural, socio-economic, ethical, legal, organisation and funding.
Food	Refers to food and non-alcoholic beverages. In the context of Food-EPI, it excludes breastmilk or breastmilk substitutes.
Food Environment	The collective physical, economic, policy, and socio-cultural surroundings, opportunities, and conditions that influence people's lifestyle choices and behaviours for the prevention of NCDs.
Food Poverty	Food poverty is the inability of individuals and households to obtain an adequate and nutritious diet, often because they cannot afford healthy food or there is a lack of shops in their area that are easy to reach. Synonymous with food insecurity.
Government	Any government department and, where appropriate, other agencies (i.e. statutory bodies such as offices, commissions, authorities, boards, councils etc.)
Policy Action/ Policy Intervention	Policy actions are defined as actual options selected by policymakers. Public policy actions are specific actions put into place by any level of government or associated agencies to achieve the public health objective. They may be written into broad strategies, action plans, official guidelines/ notifications, calls to action, legislation, or rules and regulations. A policy action may have its own exclusive policy document or may be part of a larger document. For example, implementing a sugar sweetened beverage tax. Policy action is synonymous with policy intervention.
Health Inequality/ Socio-economic Inequality	The avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically or by other means of stratification. Health equity is the absence of the above[6].
Healthy/ Unhealthy Foods	Categorisation of foods as healthy/unhealthy are in accordance with the WHO and EU guidelines. The WHO defines a healthy diet as "protection against malnutrition in all its forms, as well as non-communicable diseases (NCDs), such as diabetes, heart disease, stroke, and cancer"[7]. Where it is not clear which category to use, categorisation of foods should be informed by rigorous criteria or the use of a nutrient profiling model.

NCD's	Non-communicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and behaviours factors.
Nutrients of concern	Salt (sodium), saturated fat, trans fat, and added sugar.
Nutrient Profiling Model	Nutrient profiling is a tool used to categorize foods and non-alcoholic beverages according to those that are more likely to be part of a healthy diet from those that are less likely. This is often based on foods which contribute to excess consumption of energy, saturated fats, trans fats, sugar or salt.
Policy	Policies are purposeful decisions, plans and actions made by voluntary or authoritative actors in a system designed to create system-level change to directly or indirectly achieve specific societal goals. Within this definition, public policy is a form of government action usually expressed in a law, a regulation, or an order. Since it reflects an intent of government or its representative entities.
Public Policy Implementation	Refers to the transformation of government decisions through processes including different levels of government, administrative structures and capacities, inner administrative dynamics, party interest, and underlying normative and power structures.

[1] Definitions based on the Policy Evaluation Network (PEN) Glossary available on the PEN website: https://www.jpi-pen.eu/

1. Introduction

Non-communicable diseases (NCDs) such as diabetes and cardiovascular disease are responsible for the premature death of up to 15 million people (70%) worldwide[8]. In 2016, 91% of preventable deaths in Ireland were due to NCDs[9].In addition to lives lost, the economic burden continues to escalate. Spiralling costs associated with NCDs, such as cardiovascular disease (CVD) and cancer, cost the European Union (EU) health care systems almost €111 billion and €97 billion respectively.

Production losses related to NCD's cost EU states a total of €54 billion due to associated mortality and morbidity[10]. In the past twenty years, Ireland's health spend per capita has moved ahead ofthe OECD average[11], with 90% of healthcare costs related to the management of chronic diseases[12].

Dietary risks are a leading contributor to the global burden of disease[13]. In 2019, dietary risk factors were the second leading cause of deaths in women (accounting for 3.48 million deaths, 13.5%) and the third leading cause of death for men (accounting for 4.47 million deaths, 14.6%)[14].

The recent Lancet Global Syndemic Report[1] recommends comprehensive actions to address obesity in the context of the co-occurring epidemics of obesity, undernutrition, and climate change, termed the Global Syndemic.

The Report highlights the common drivers of this Global Syndemic and further highlights that upstream monitoring is needed 'to measure implementation of policies, examine the commercial, political, economic, and socio-cultural determinants of obesity, evaluate the impact of policies and actions and establish mechanisms to hold governments and powerful private-sector actors to account for their actions'.

In this context, in order to control the dietary risk factors associated with NCDs in Ireland, an understanding of the current level of implementation by government of food environment policies, regulations and programs is required[15] given the overarching influence the food environment has on health.

1.1 Why do we need to improve Ireland's food environments?

In Ireland, despite improvements in the past two decades, rates of diet-related diseases remain concerningly high. Approximately 1 million people in Ireland experience NCDs, with 64.8% of adults aged ≥65 years having more than one condition[16,17]. Diet-related conditions account for the leading cause of all deaths, with circulatory diseases and cancer accounting for 30.1% and 29.9% respectively[18].

Between 2015-2018, rates of diabetes increased by 22% per year, with €330 million spent on preventable complications such as limb amputation[19]. The number of people aged 50 years living with chronic disease has been estimated to increase to 1.1m in 2030[16]. The ageing demographic in Ireland, which is higher than the European average, increases the likelihood that healthcare systems will be unable to cope if urgent action is not taken. Those who have high blood pressure (64% adults ≥ 50 years), high cholesterol (58% adults ≥ 50 years), high body mass (62%) or exposed to social disadvantage (22.5%) are most at risk of developing NCD's[16,17,20,21].

Since 2008, the World Health Organisation (WHO) have advocated that cohesive, deliberate and equitable action is required to better support more vulnerable groups and reduce inequities between population groups[22].

Access to healthy foods is a key determinant of the health gap experienced. Those in lower social groups have reduced access to affordable, nutritious, and tasty foods[23]. Despite the commitment to address this issue as part of the European Food and Nutrition Action Plan 2015–2020, health inequities across Europe are continuing to widen[24].

1.2 Are there inequalities in terms of dietary risks?

A concerning level of health inequities exist across different population groups within countries[23]. Those in "at-risk" groups (approximated by level of education, occupation, or position in the income distribution) are at significantly higher risk of NCD's and poor health outcomes[25]. In Ireland, those in socially disadvantaged groups, and ethnic minorities demonstrate higher risk for cardiovascular disease compared to other groups[26]. This is directly linked with poor nutrition[17]. For example, significantly more of those who are unemployed consume processed meals as their primary food source compared to those who are employed (11% versus 2%) and twice as many (30%) of those in employment eat the recommended amount of fruit and vegetables compared with those who are unemployed (14%)[27].

The significant level of health inequalities in Ireland may be explained by the social gradients in nutritional intake. An interplay between macronutrient intake and social class was observed in nutrient intake, with a healthy balance of these nutrients mostly achieved by socially advantaged individuals[28]. This disparity translates to reduced access to good quality, nutritious and affordable food for those in socially disadvantaged groups in Ireland. In 2018, Safefood found that one in ten households experience "Food poverty"; that is, they are unable to have an adequate and nutritious diet due to issues of affordability and accessibility, and subsequently these individuals have higher levels of diet-related disease[29].

The composition and location of the household impacts on the price of foods, for example, those living in rural areas have increased food costs due to more food being bought in local stores which tend to be expensive. Furthermore, the research has shown that low income households have to spend a larger portion of their income (up to 33%) to buy nutritionally adequate food[29]. This social inequality in the association of diet quality results in the disproportionate occurrence of obesity in groups with higher levels of socio-economic disadvantage.

The 'Growing up in Ireland' study found pronounced social-class inequalities in the prevalence of overweight and obesity in children. Amongst nine-year-olds, 19% of boys and 18% of girls had the probability of becoming overweight or obese if from professional households, compared with 29% of boys and 38% of girls, if from semi/unskilled households[30]. Furthermore, one in four adolescents over 15 years are living with obesity in the most disadvantaged areas compared to less than one in six areas of higher affluence[31].This inequality is evident across the lifecourse[32].

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

National governments and the food industry are the two major stakeholder groups with the greatest capacity to modify food environments and population diets. Effective government policies and actions are essential to co-ordinate efforts to support citizens to consume healthy diets and reduce the physical, psychosocial, and economic burden of chronic disease[33].

Some governments internationally have demonstrated leadership and taken action to improve the healthiness of food environments. These examples can serve as best practice exemplars or benchmarks for other countries. Availability and affordability of healthy foods may be supported or negated by public policies. Increased importance has been placed on creating public policies and government actions that offer equitable benefits to "at-risk groups"[34].

It is important to consider how policies affect vulnerable population groups. Government actions should be moderated to address health as well as addressing health inequalities. However, despite the global recognition of the influence of the food environment on population diets and the contribution to the increased risk of ill-health, in many countries there remains slow and insufficient government action to improve food environments[35].

1.4 What needs to change?

Food environments, defined as "the collective physical, economic, policy, and sociocultural surroundings, opportunities, and conditions that influence people's food and beverage choices and nutritional status"[4], have been recognised as highly influential on dietary behaviours.

Unhealthy food environments encourage the consumption of unhealthy foods (i.e. ultra-processed, energy-dense, nutrient poor products) which are intensely promoted and easily accessible. For example, Irish pre-school children are exposed to 1,000 ads on television for unhealthy foods each year[36]. Such environments are a product of policy actions across multiple sectors (business, agriculture, environment, healthcare, education) and overall result in healthier foods seeming less attractive, less accessible, and often less affordable to consumers.

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

This report used the INFORMAS (International Network for Food and Obesity/ NCDs Research, Monitoring and Action Support) 'Healthy Food Environment Policy Index' (Food-EPI) framework, which was developed in 2014 to monitor, benchmark, and support governments actions[15]. The index provides a systematic framework to identify strategic, effective intervention and encourages collaboration between non-health sectors to ensure the healthiest possible food environment.

The Food-EPI tool also enables comparison between different countries in terms of government actions. For example, a compilation of Food-EPI results across 11 countries highlighted those with the highest and lowest level of implementation (Chile and Guatemala respectively) and identified that respective governments tended to prioritise similar actions such as taxes on unhealthy food, restricting unhealthy food promotion and front-of-pack labelling[35].

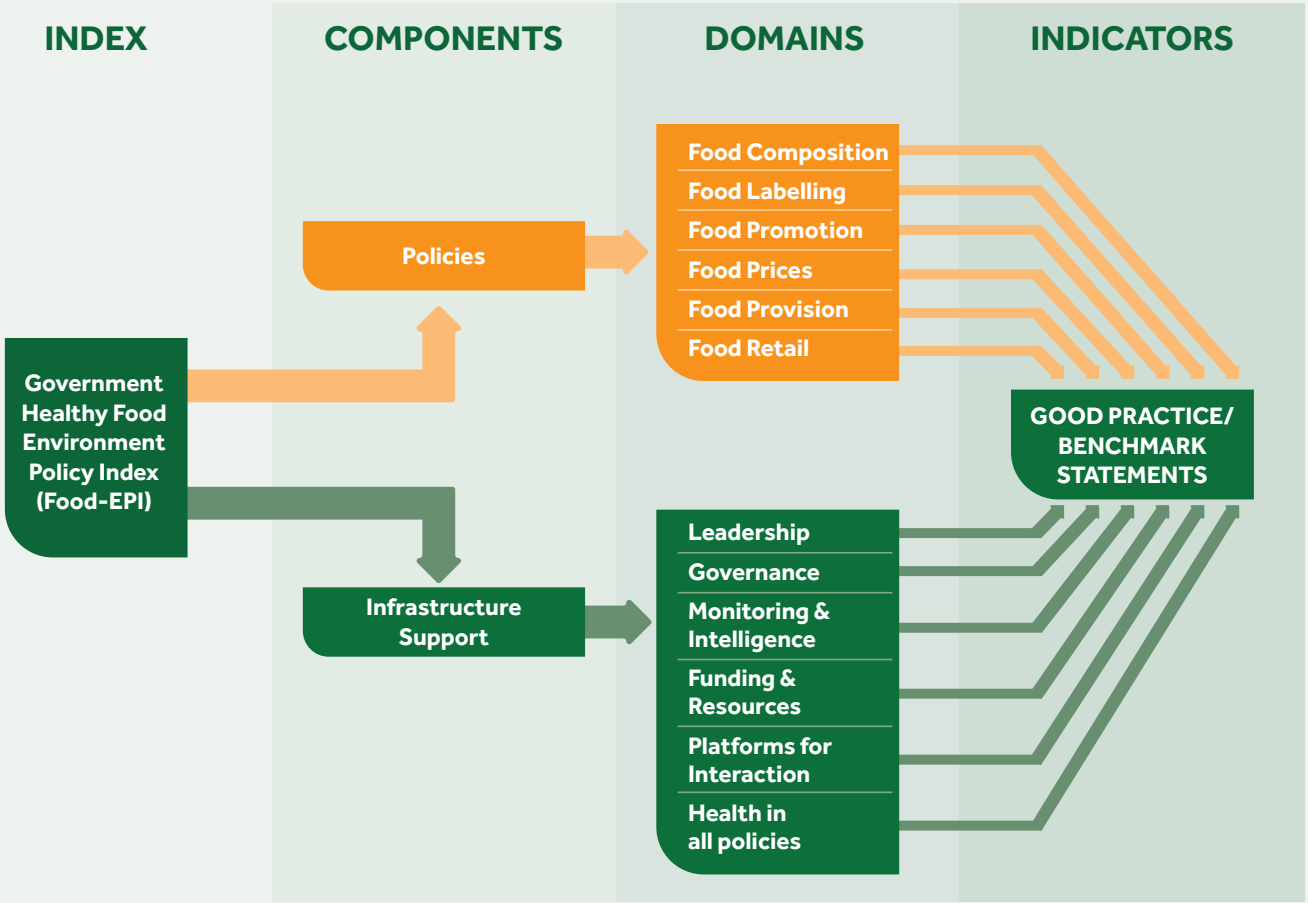
The Food-EPI was found to be a robust tool and process to benchmark governments' progress to create healthy food environments. It enables engagement of an Irish-based expert panel in food policy to provide feedback to government about the level of action/implementation in certain areas. The tool facilitates the identification and prioritisation of future actions the Irish government should take to improve the food environment and reduce the rates of NCD's in Ireland.

2.1 What tool was used to measure implementation?

The Food-EPI framework is consistent with global action plans aimed at reducing NCD's including the WHO's Global Action Plan for the Prevention and Control of Non-Communicable Diseases (2013–2020)[37] and the World Cancer Research Fund (WCRF) International NOURISHING Food Policy Framework for Healthy Diets[33,38].

The relationship between key features of the Food-EPI tool is shown in Figure 2. Evidence of government action is divided based on two components; 1) Policy, which addresses key aspects of food environment influenced by government to create accessible, available, and affordable healthy food choices and 2) Infrastructure Support which facilitates policy development and implementation to prevent obesity and NCDs.

Figure 2: Component and domains of the Healthy Food Environment Policy Index tool



Each component is divided into six further domains which evaluate actions relating to specific aspects of food environments and actions for strengthening obesity and NCD prevention systems. Detailed descriptions of each domain is available in Figure 3 and Figure 4.

There are good practice indicators contained in each of the domains that encompass actions necessary to improve the healthiness of food environments and to help prevent obesity and diet-related NCDs.

Figure 3: The Food-EPI Policy Domains

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).

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

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 across all media. Exposure of food marketing concerns the reach and frequency of a marketing message. This is dependent upon the media channels, which are used to market foods. The power of food marketing concerns the creative content of the marketing message. For example, using cartons or celebrities enhances the power (or persuasiveness) of a marketing message because such strategies are attractive to children.

Food Provision:
The government ensures that there are healthy food service policies implemented in government-funded settings to ensure that food provision encourages and supports private companies to implement similar.

Food in Retail:
The government has the power to implement policies and programmes 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).

Food Trade & 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.

Food Prices:
Food pricing policy (e.g., taxes and subsidies) are aligned with healthy outcomes by helping to make the healthy eating choices, the easier, cheaper choices.

Figure 4: The Food-EPI Infrastructure Support Domains

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 and improve population nutrition.

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.

Monitoring & 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.

Funding & Resources:
Sufficient funding is invested in 'Population Nutrition Promotion' (estimated from the investments in 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) to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs, and their related inequalities.

Platforms for Interaction:
There are co-ordination 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.

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.

2.2 Adaptation of the tool

The Food-EPI Ireland study is conducted in collaboration with the Policy Evaluation Network (PEN). PEN is a network of researchers from 28 institutes in 7 European countries and New Zealand, which aims to combine the expertise of all partners when interacting with policy makers and renowned experts in policy development, implementation, and evaluation.

This study is part of the JPI-HDHL and conducted under the PEN Work Package 1, Objective 1.1 "To use the Food-EPI, to assess the extent of implementation of government (and EU) policies on food environments against best practice in participating PEN countries (Ireland, Norway, Netherlands, Poland, Germany)". Under the umbrella of INFORMAS, this deliverable of PEN will be complimented by a concurrent project entitled STOP (Science and Technology in childhood Obesity Policy), through which an additional five countries (Slovenia, Spain, Portugal, Estonia, Finland) plan to complete the Food-EPI by 2024[39].

In January 2018, a pilot workshop was held in Ireland to review and validate a draft Food-EPI evidence document. This exercise highlighted the need for some of the Food-EPI indicators to be adapted to a European context. As Ireland is a member of the European Union, modification of the standard Food-EPI tool developed by INFORMAS and described above was required. For example, in the original tool "Food Trade and Investments" within the policy domain is not under the jurisdiction of national governments and is determined at European level, therefore it was not included in the Irish Food-EPI. Changes to some of the indicators were required, for example within the Food Composition domain trans fat was omitted as this fall under EU regulation. Two indicators under the Food Labelling domain which cover ingredient lists and nutrition claims on food packaging are not under the remit of national government.

The review and updating of the indicators and benchmarks was conducted between February 2019 to May 2019 by all PEN WP1 partners as part of the PEN project (Appendix 1). These updated indicators and benchmarks will be used across all PEN countries thus enhancing comparability of the PEN Food-EPI reports.

This study was granted ethical approval by the Social Research Ethics Committee, University College Cork (SREC Application #2019-183).

2.3 Social Inequalities

There is growing concern about the level of health inequality worldwide. Policies have the potential to have a progressive or regressive effect on health disparities[34]. For the first time, an assessment of socio-economic inequalities will be adopted into the Food-EPI tool.

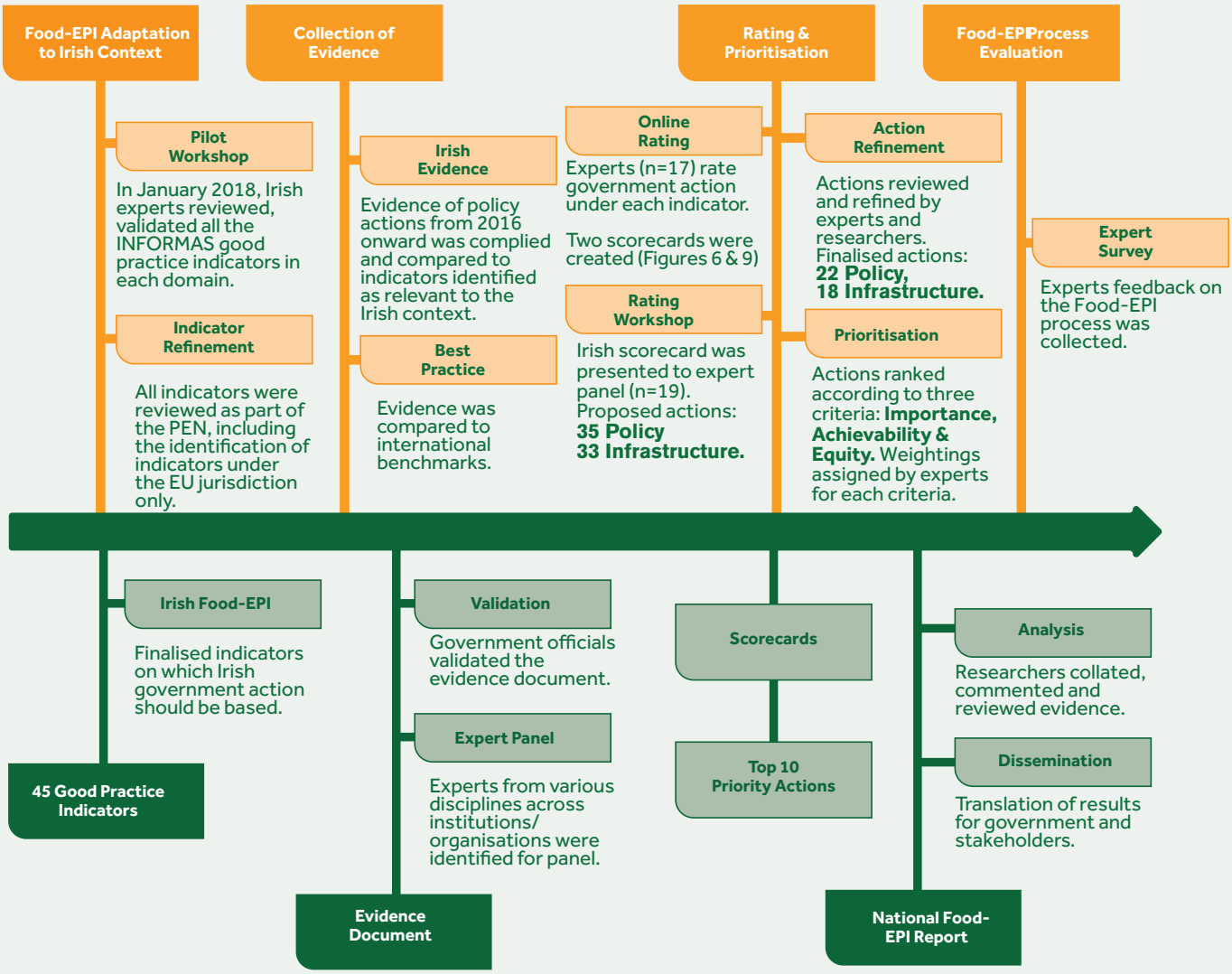
This data will give an approximate measure of the impact of implementing healthy food environment policies on social inequalities. In addition, actions will be identified and prioritised based on their equitability. As the addition of socio-economic inequalities is a novel component, the standardised Food-EPI process and results will be presented first in this report and the social inequality appraisal will follow in a separate section.

2.4 Collection of Evidence

The research team complied international benchmarks for each indicator and collected evidence of the policy status for the then sitting Irish government during its term of office between 2016 and 2020. A comprehensive list of the international benchmarks can be found in "The Healthy Food Environment Policy Index (Food-EPI): Evidence Document for Ireland 2020"[40] which is available on the PEN website: https://www.jpi-pen.eu/reports.html. After validation by Irish government officials, the evidence document was circulated to all experts before the rating commenced.

A depiction of the overall Food-EPI Ireland process and the deliverables at each step is outlined below in Figure 5. Key stages will now be described in detail including the outcomes at each stage. A mixed methods design was used to obtain the ratings on the level of implementation of good practice policies and infrastructure supports and to identify and prioritise actions.

Figure 5: Steps of the Food-EPI Ireland 2020 process



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

3.1 Who conducted the assessment?

A total of 40 Irish experts were invited to be a part of the Food-EPI Ireland process, 20 experts agreed, and the panel was established. Of the 20 experts, 17 participated in the online rating survey and 19 participated in the prioritisation exercise.

All experts consented to take part in the panel and declared potential conflicts of interest. Government officials from key departments attended the prioritisation workshop as 'observers' but did not take part in the online rating or prioritisation. Representatives from industry were not included in the Food-EPI process.

3.2 How did they conduct the assessment?

The expert panel were required to rate the degree of implementation of policy and infrastructure support in Ireland against international benchmarks (see Definition of Terms). These examples of international best practice are comprehensive examples of food policy implementation by countries worldwide that are at the forefront of creating healthy food environments.

The benchmarks are selected based on their strength (e.g. using independent nutrient profiling criteria) and comprehensiveness (e.g. including a broad range of age groups, food groups, media, settings or regions). An example of the benchmarks included within the Food Composition domain is shown below in Table 1. The full compilation of the benchmarks used can be found in the evidence document[40].

Table 1: Example of International Benchmarks

Domain	Indicators	International Benchmarks
Food Composition	**COMP1:** Food composition targets/standards for processed foods	**UK:** Reduction programme to remove sugars by at least 20% by 2020. **South Africa:** Mandatory maximum levels of salt permitted in various food categories. **The Netherlands:** Voluntary commitments by food manufacturers to reduce salt, saturated fat and sugar in a variety of food products and soft drinks.
	COMP2: Food composition targets/standards for out-of-home meals	**New Zealand:** Industry standards established for deep frying oils for food service outlets. **USA (New York City):** National Salt Reduction Initiative has established salt reduction targets for restaurant foods and packaged foods.

Experts were instructed to rate the degree of implementation of the Irish government's policies in different areas (compared to international best practice) using a Likert scale of 1 to 5 (1=>20% implemented, 2=20-40% implemented, 3=40-60% implemented, 4=60-80% implemented, 5=80-100% implemented). There was also a 'cannot rate' option. In addition, experts were asked to consider the various steps of the 'policy cycle' (agenda-setting and initiation, policy development, implementation and evaluation).

This included intentions and plans of the government such as the establishment of working and advisory groups, as well as government funding for implementation of actions undertaken by non-governmental organisations. A total of 45 indicators were rated comprising of 22 policy and 23 infrastructure support indicators.

Before rating each indicator, the experts were provided with instructions and the Irish evidence document. Experts were also given the opportunity to comment on the rating given. The mean rating for each indicator was used to determine an overall percentage level of implementation. These ratings were then categorised into High (>75%), Medium (51-75%), Low (26-50%) or Very Little, if any (<25%).

4. How well is the Irish government performing compared with international best practice?

4.1 High Implementation

Ireland was rated at the level of best practice ('high') for some infrastructure support policies such as the public having access to nutrition information and key documents; regular monitoring of body mass index (BMI), and regular monitoring of the prevalence of NCD risk factors and occurrence rates for the main diet-related NCDs.

The Irish government have implemented clear, evidence-based, food-based dietary guidelines and there is a robust co-ordination mechanism between local and national government to ensure public health policy coherence (Figure 6). Ireland also has procedures implemented to support evidence-informed policy-making. There was no 'high' level of implementation across any of the food policy indicators.

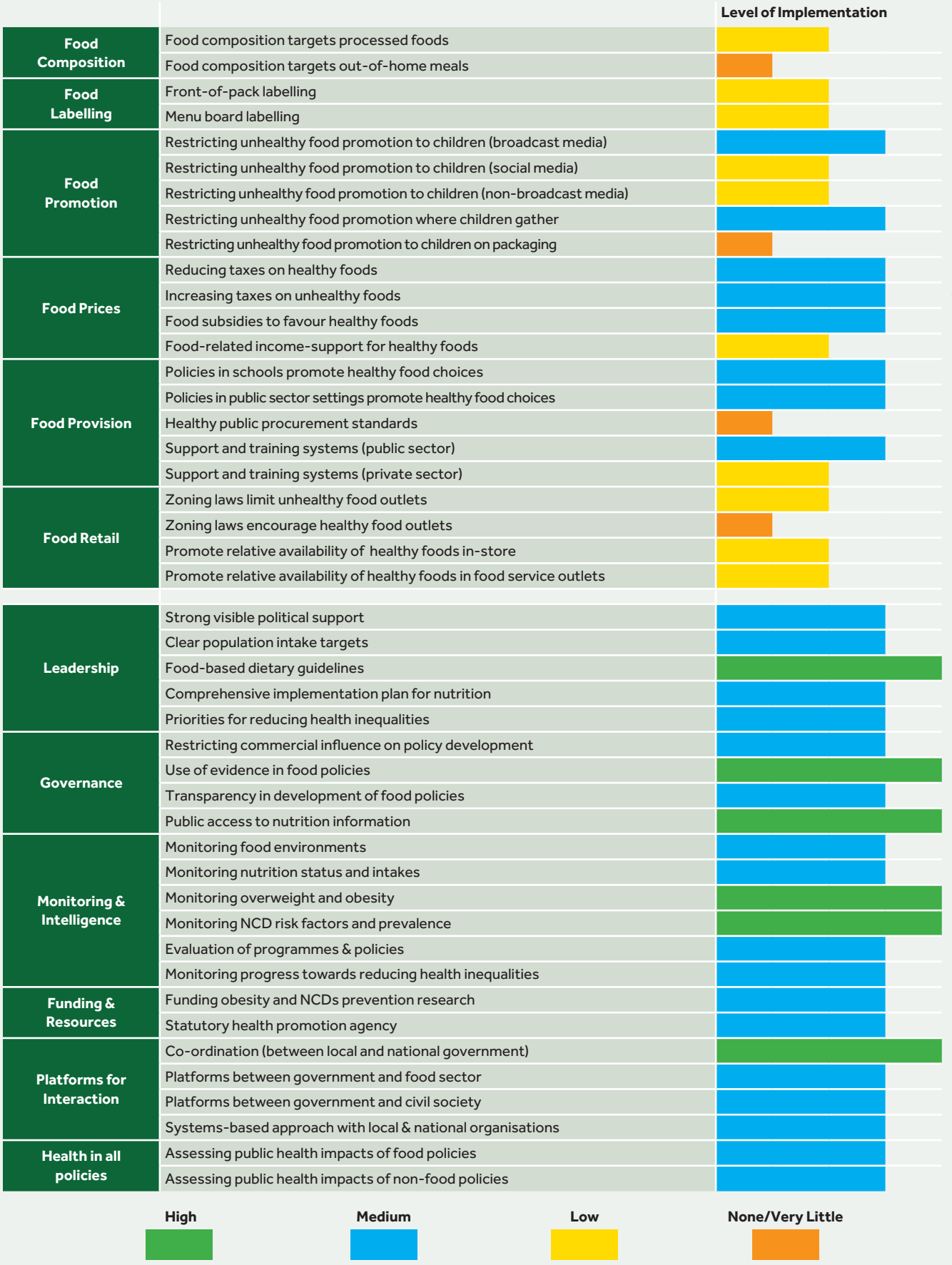
4.2 Medium Implementation

Ireland was assessed to be performing well ('medium') against international benchmarks for most infrastructure support indicators (74%) and some policy indicators (36%). For the infrastructure domains, these included having policies and procedures in place for ensuring transparency in the development of food policies and established clear population intake targets for nutrients of concern.

The Irish government has comprehensive structures in place which restrict commercial influence during policy development related to the food environment and continues to fund research for improving the food environment. The government has implemented plans and initiates targeted at reducing inequalities in relation to diet and health.

Ireland has established committees to enable synergies between government, the food industry, and civil society to ensure coherent action towards improving the food environment. Finally, the government is performing well in assessing public health impacts during development of food and non-food policies.

Figure 6: Level of implementation of food environment policies and infrastructure support by the Irish Government



For the policy domains, there is government implementation on restricting unhealthy food promotion to children through broadcast media and in settings where children gather. There is also government action aimed at making healthy food affordable and accessible for the population through relative taxation of healthy and unhealthy foods, food subsidies, and policies to promote healthy food choices in schools and in public sector settings. The Irish government is providing good support to assist public sector organisations and schools meet food and nutrition provision guidelines.

4.3 Low Implementation

Half (50%) of the good practice indicators under the policy domain were rated as having poor ('low') implementation compared with international best practice, specifically food labelling, food promotion, and food retail. All current government action on evidence-informed front-of-pack labelling and menu board labelling was deemed poor.

There was a lack of policies restricting the promotion of unhealthy foods to children on social media and non-broadcast media. Food retail environments are increasingly considered influential in determining dietary behaviours and health outcomes, but ratings indicated that there was low implementation of policies for community food environments (e.g. availability and accessibility of food outlets) or consumer food environment (e.g. in-store availability and promotion of foods).

For example, there was a lack of implementation of support systems by governments to promote healthy foods availability and limit that of unhealthy foods both in-store and within food service outlets. In addition, implementation of zoning laws to limit density or placement of unhealthy food outlets was poor, especially their proximity to schools.

4.4 None or very little Implementation

There were four major implementation gaps identified within government policy relating to food composition, promotion, provision, and retail being evaluated at 'very little, if any' implementation. Food composition targets for meals sold in food-service outlets for nutrients of concern (added salt, sugar, and saturated fat), in food groups which significantly contribute to the intake of these nutrients of concern by the population, have not been established by the Irish government.

Policies restricting the marketing of unhealthy foods to children, including adolescents, on commercial food packages were rated as having 'very little, if any', implementation. Similarly, results showed very little implementation of policies aimed at development of food procurement standards for food service activities in the public sector settings i.e. standards which would encourage the provision and promotion of healthy foods and discourage the procurement of unhealthy foods. Finally, the Irish government is unsuccessful in the execution of zoning laws and policies that would encourage the availability of outlets such as supermarkets and farmer's markets, selling fresh fruit and vegetables and/or supporting greater access to these outlets by the public through adaptable opening hours and increased frequency of markets.

5. What process was used to prioritise actions?

During the prioritisation workshop, actions were proposed by the expert panel after assessing the 'implementation gap' from the rating score for each good practice indicator. There were 35 policy actions and 33 infrastructure actions proposed.

These were actions that the experts identified as having the potential, in collaboration with other actions, to improve the healthiness of food environments and reduce obesity, and diet-related NCDs in Ireland.

Following the workshop, experts were given the opportunity to review and refine proposed actions and subsequently the final number of actions for prioritisation was 22 policy actions and 18 infrastructure support actions. These actions were prioritised in a separate online process after the workshop. Policy and infrastructure support actions were prioritised separately.

The expert panel were asked to rank the policy and infrastructure support actions according to two elements: 'Importance' and 'Achievability'. Criteria to be considered when evaluating these elements can be found in Table 2.

The ranking involved distributing numbers from 1 to 22 twice for the 22 recommended policy actions (e.g. allocating the number '1' to the action considered the 'most achievable', relative to the other actions and allocating the number '1' to the action considered the 'most important', relative to the other actions). The experts prioritised the 18 infrastructure actions using the same method.

This meant allocating numbers 1 to 18 across the actions, first for importance and then for achievability. Participants were given the opportunity to differentially weight the importance and achievability elements which had a predefined equal weighting.

The weighting percentage chosen by each expert was applied to their individual ranking scores and their scores for importance and achievability were summed for each proposed action. A table of the top 5 prioritised actions for policy and infrastructure support (weighted and non-weighted) using the criteria is shown in Appendix 3 and 4. For the infrastructure support actions, there was no difference in the priority actions selected or their ranking order when weighted or non-weighted.

Table 2: Criteria for 'Importance' and 'Achievability' elements

Importance
Need
Size of the implementation gap
Impact
Effectiveness of the action on improving food environments and diets (including reach and effect size)
Other positive effects
For example, on protecting rights of children and consumers
Other negative effects
For example, regressive effects on household income, infringement of personal liberties.

Achievability
Feasibility
How easy or hard the action is to implement
Acceptability
The level of support from key stakeholders including government, the public, public health and industry
Affordability
The cost of implementing the action
Efficiency
The cost-effectiveness of the action

6. Which actions did the Expert Panel prioritise for implementation by the Irish Government?

The 22 policy actions proposed are detailed below in Table 3. The actions are listed in order of most important and achievable as ranked by the expert panel. The top prioritised actions (1-5) are shown in green. These are the actions perceived to be the most important and achievable for improving population nutrition and creating healthier food environments in Ireland.

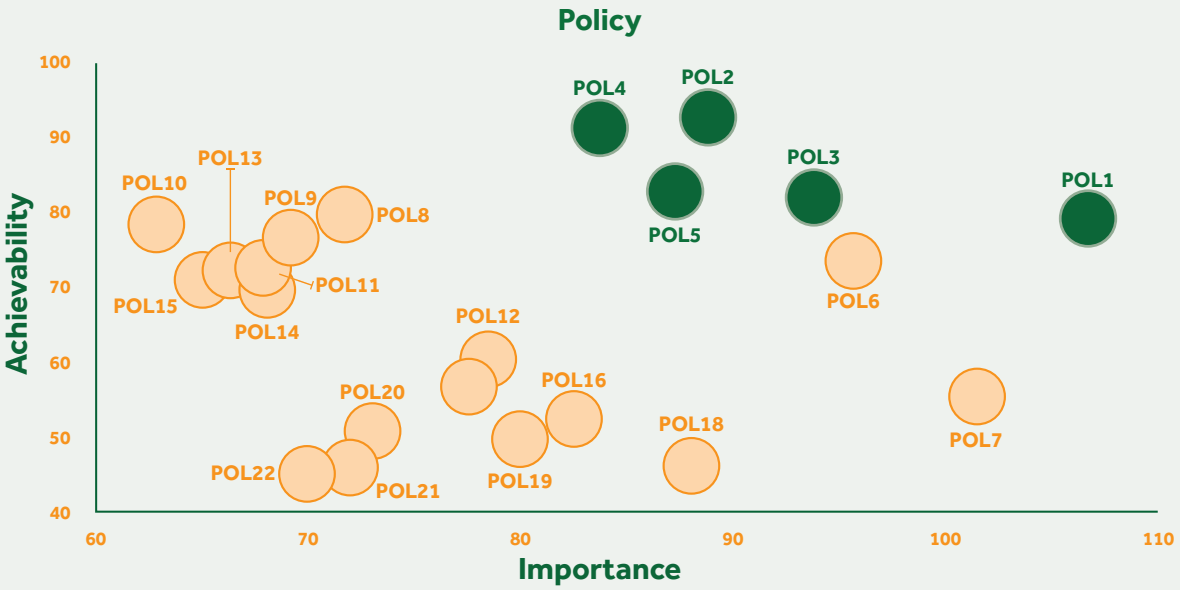
The total score for each action is plotted on a graph and the top priorities are shown in green i.e. the action with the highest score (see Figure 7).

Table 3: High priority recommended actions for the Irish Government: Policy actions[2]

POL	Domain	Label	Action
1	PROVISION	PROV1	**School Food Policies:** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.
2	PROVISION	PROV2	**Public Sector Healthy Food Choices:** Implement new policy and monitor existing policies for the public sector setting on the provision and promotion of healthy food choices.
3	RETAIL	RETAIL1	**Zoning Laws:** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.
4	PROVISION	PROV4	**Public Sector Training and Support:** Develop a nutrition standards programme for caterers/chefs offered through catering/hospitality institutes and provide training and support for caterers/chefs etc.
5	PROVISION	PROV1	**School Food Policies:** Prohibit vending machines and tuck shops in post-primary schools.
6	PROVISION	PROV3	Develop a healthy food procurement policy for the public sector and establish a standardised mechanism for publicly funded healthy food procurement.
7	COMPOSITION	COMP2	Provide guidelines for food preparation/food outlets on composition targets (HFSS).
8	LABEL	LABEL3	Create a standardised, simplified FOP labelling system appropriate in the Irish context and put resources in place to disseminate labelling requirements.
9	PRICES	PRICES4	Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.
10	COMPOSITION	COMP2	Food composition targets, for advancing nutritional profiling, should be policy-led and impartial without reliance on the food sector for implementation.
11	RETAIL	RETAIL2	Create incentives for encouraging outlets to sell fruit and vegetables.
12	RETAIL	RETAIL3	Regulation required to control promotional offers on unhealthy foods.
13	PROMOTION	PROMO2	Develop legislation to address personalised online marketing targeting children encompassing the role of online influencers/personalities.
14	PROMOTION	PROMO3	Implement a mandatory Code of Practice for non-broadcast media advertising and develop/support an awareness campaign (population-wide) on the Code.
15	PRICES	PRICES2	Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.
16	PROMOTION	PROMO1	Review and evaluate Ireland's Children Code and the General Code by the BAI to ascertain impact and efficacy.
17	LABEL	LABEL3	Introduce Nutriscore on a voluntary basis nationally.
18	PRICES	PRICES4	Review effectiveness of income support for food producers.
19	LABEL	LABEL3	Lead efforts for a mandatory programme (nutrition information system) at EU level.
20	LABEL	LABEL3	Government advocating at EU level for nutrient profiling.
21	RETAIL	RETAIL4	Stringent regulation of food offerings/marketing strategies for food service outlets, modelled on established international practice is required and active promotion of the Code of Practice.
22	PROVISION	PROV5	Increase evidence-based research to inform policy tailored to private sector requirements.

[2] The actions shown in the above table are the weighted policy actions i.e. the weighting percentage scores determined by the experts have been applied.

Figure 7: Importance and achievability of recommended actions (top priorities in green) for the Irish Government: Policy actions



The 18 infrastructure support actions proposed are detailed below in Table 4. The actions are listed in order of importance and achievability as ranked by the expert panel. The top prioritised actions (1-5) are shown in green. These are the actions perceived to be the most important and achievable for helping to facilitate effective policy implementation. The total score for each action is plotted on a graph and the top priorities are shown in green i.e. the action with the highest score (see Figure 8).

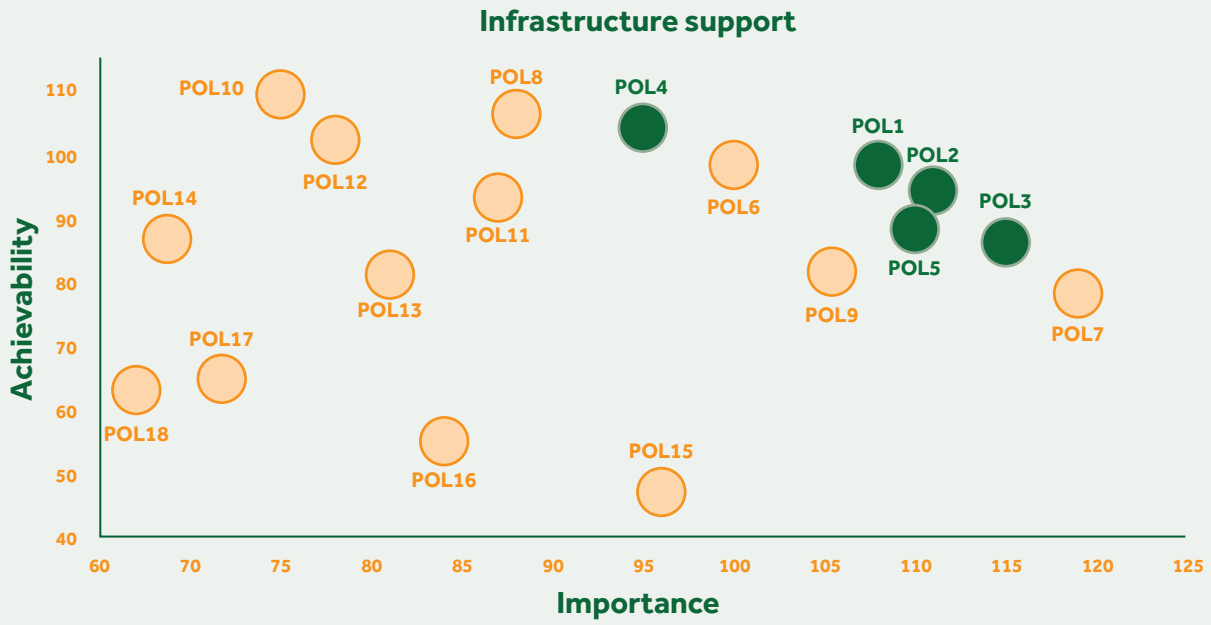
Table 4: High priority recommended actions for the Irish Government: Infrastructure Support actions[3]

POL	Domain	Label	Action
1	GOVERNANCE	GOVER3	**Transparency in Policy:** Create an oversight committee/group for ensuring transparency when implementing food and nutrition policy.
2	LEADERSHIP	LEAD1	**Political Support:** Visible leadership and commitment to the national obesity policy is required by An Taoiseach with cross-party support.
3	PLATFORMS	PLAT3	**Engagement Platforms with Civil Society:** Regular interaction to inform policy development between government and civil society - encompassing academia, stakeholders, and the Citizens' Assembly (public).
4	PLATFORMS	PLAT4	**System-based Approach:** Establish a forum for policy makers, researchers, etc. to facilitate information exchange and knowledge transfer to inform policy development and identify priority areas (e.g. nutrition policy) to improve food environments and health outcomes.
5	HEALTH IN ALL POLICIES	HIAP1	**Health Impacts in Policy:** Create a policy or guideline to ensure health impacts in vulnerable groups are considered/assessed during development of all food-related policies.
6	PLATFORMS	PLAT1	Create a cabinet committee to address obesity prevention, implement policies, and improve synergies across all government departments.
7	GOVERNANCE	GOVER1	Create broad and transparent procedures for policy formulation that exclude vested interests from the decision-making process and develop a mechanism to declare conflict of interest in policy making.

[3] The actions shown in the above table are the weighted infrastructure support actions i.e. the weighting percentage scores determined by the experts have been applied.

8	HEALTH IN ALL POLICIES	HIAP1	Implement a co-ordinated approach to address inequalities in food and nutrition through the Healthy Ireland Framework.
9	LEADERSHIP	LEAD2	Effective campaigns addressing population intake targets need to be directed at vulnerable groups.
10	GOVERNANCE	GOVER2	Develop guidelines for using evidence-based research to inform policy creation.
11	MONITORING	MONTI6	Greater monitoring of inequalities in child health.
12	PLATFORMS	PLAT1	Develop a platform, in accordance with the Open Data Strategy Ireland, to share communications/information on publicly funded research for obesity and NCD prevention.
13	FUNDING	FUND2	Fund the National Food Surveys on a rolling basis, independent of general nutrition research calls, to ensure the sustainability of nutritional surveillance efforts and facilitate greater conduction of research to improve the food environment and reduce obesity and NCDs.
14	LEADERSHIP	LEAD3	Dietary guidelines need to consider sustainability in addition to health.
15	MONITORING	MONTI2	Increase government support and monitoring of national nutrition surveillance.
16	GOVERNANCE	GOVER3	Improve the documenting of the process between agencies involved in policy development. Develop evidence-based policies for supporting funding streams that bring research and policy together (through the Health Research Board)
17	LEADERSHIP	LEAD5	Develop a national food poverty policy in partnership with the All-island Food Poverty Network
18	FUNDING	FUND2	Generate a rigorous system for evaluating research priorities.

Figure 8: Importance and achievability of recommended actions (top priorities in green) for the Irish Government: Infrastructure Support actions



7. Socio-economic Inequalities and the Irish Food Environment

During the rating process, where the level of implementation in Ireland was rated against international best practice (see section 3 for full details), experts were asked to consider social inequality aspects of the Food-EPI framework.

For each indicator within the policy domain, experts indicated to what degree the implementation of the indicator can impact on socio-economic status (SES) inequalities in Ireland by selecting one of the following options;

- Could lead to a considerable reduction of SES inequalities
- Could lead to a small reduction of SES inequalities
- No impact on SES inequalities
- Could lead to a small widening of SES inequalities
- Could lead to a considerable widening of SES inequalities

There was also a 'I don't know' option. The median score for each indicator was used to determine the overall impact of the indicator on socio-economic inequalities.

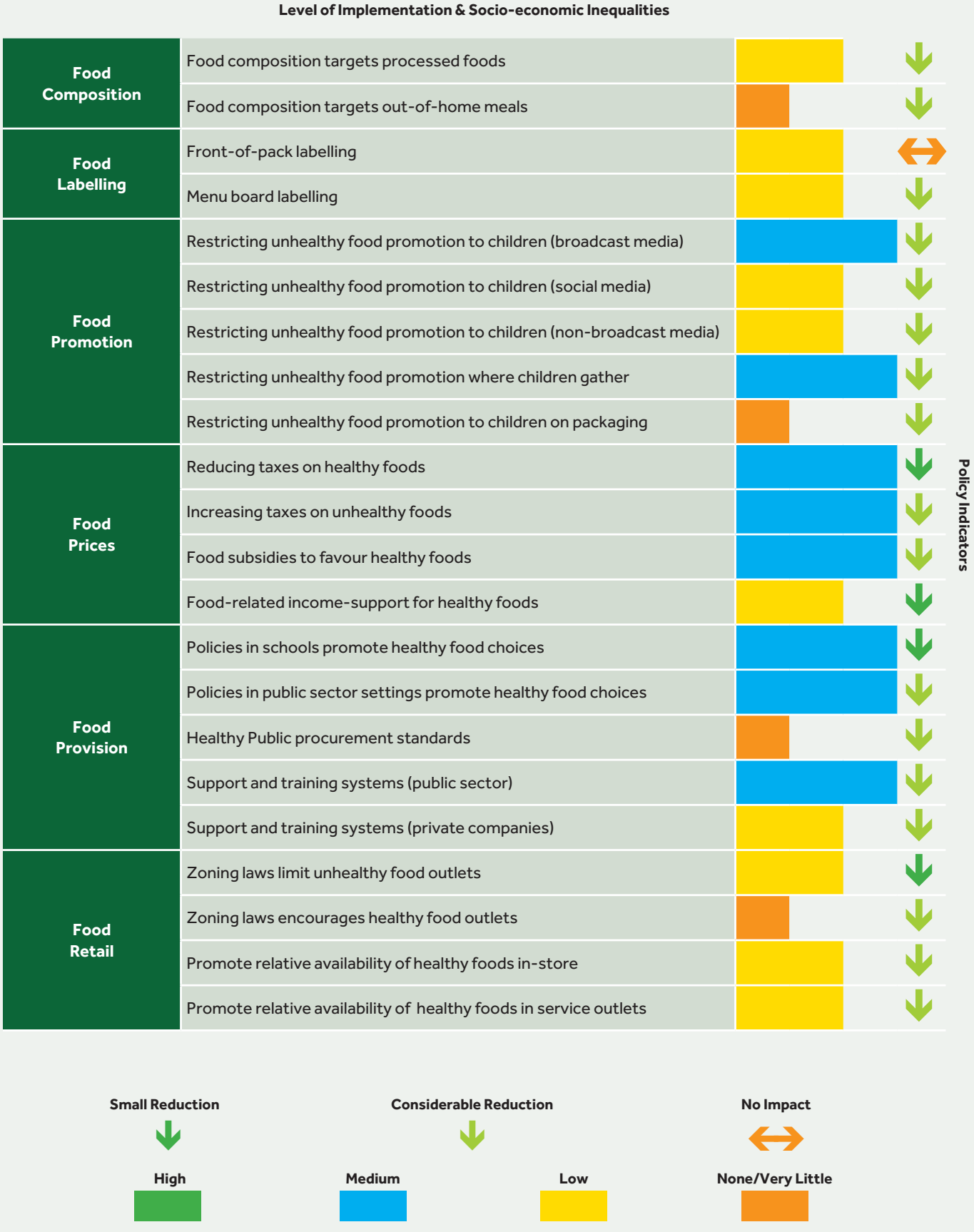
7.1 How does the Food Environment Indicators impact on Socio-economic Inequalities according to Irish Experts?

The social inequalities impact was added to the Irish scorecard and is depicted in Figure 9. Across the policy domains, experts indicated that implementation of over 70% of the food environment indicators had the potential to lead to a small reduction in inequalities.

As perceived by the expert panel, implementation in four areas across the food environment would have a considerable reduction on inequality, these include; (i) minimising taxes or levies on healthy foods to encourage healthy food choices, (ii) the government ensuring that food-related income support programmes are for healthy foods, (iii) the government ensuring policies implemented in schools and early childhood education services provide and promote healthy food choices and (iv) implementation of zoning laws to limit the density or placement of outlets selling unhealthy foods in communities.

Experts perceived a front-of-pack supplementary nutrition information system, such as traffic light labelling, as having little impact on social inequality.

Figure 9: Level of implementation of food environment policies and their impact on socio-economic inequalities



7.2 How were the recommended actions prioritised?

As part of the prioritisation process (outlined in section 5), experts were asked to consider the equitability of proposed actions in addition to importance and achievability for policy actions only.

The equity criteria is shown in table 5. When the equity of the proposed actions was considered, the score for each action changed and subsequently, there was some change in the top five prioritised actions. The equity criteria also received a weighted score by each expert, and this was applied to the actions.

Table 5: Criteria for 'Equity' element

Equity
Socio-economic effect
Progressive/regressive effects on reducing food/diet-related inequalities
Structures vs. Individuals
Extent to which a given policy requires environmental change rather than individual choices

7.3 Which actions did the Expert Panel prioritise for implementation by the Irish Government when equity was considered?

Two actions, public sector training and support and school food policies on vending machines were replaced from the top 5 prioritised actions when importance, achievability, and equitability was considered, shown in green in Table 6.

The two new actions include income support for vulnerable groups and unhealthy food taxation. Food pricing policies aligning with health outcomes by making healthy eating choices affordable and accessible, was an area that experts rated as having a considerable reduction on socio-economic inequalities if implemented by the Irish government. School food policies on nutrition standards remained as the action ranked most achievable, important, and equitable by experts.

Legislation on zoning laws and public sector healthy food provision were two actions that also stayed in the top 5 prioritised actions, shown in green in Table 6. Again, these were indicators where implementation by the Irish government would have a significant reduction on social inequality according to experts.

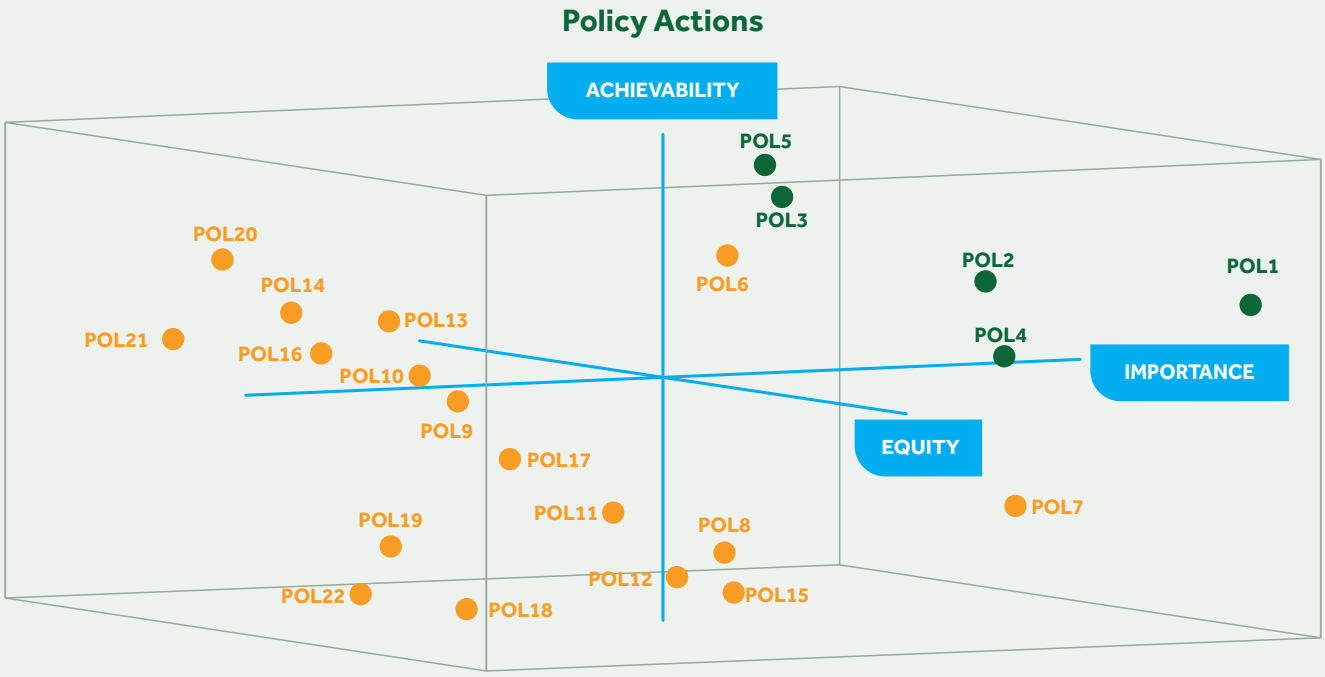
The total score for each action is plotted on a graph and the top priorities are shown in orange i.e. the action with the highest score for importance, achievability and equity (see Figure 10). A table of the top 5 prioritised policy actions when alternative combinations of the criteria is used e.g. importance and equity, or achievability and equity (weighted and non-weighted) is shown in Appendix 3.

Table 6: High priority recommended actions for the Irish Government: Policy actions (importance, achievability and equity)[4]

POL	Domain	Label	Action
1	**PROVISION**	**PROV1**	**School Food Policies:** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.
2	**PRICES**	**PRICES4**	**Income Support:** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.
3	**PRICES**	**PRICES2**	**Healthy Food Subsides:** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.
4	**RETAIL**	**RETAIL1**	**Zoning Laws:** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.
5	**PROVISION**	**PROV2**	**Public Sector Healthy Food Choices:** Implement new policy and monitor existing policies for the public sector setting on the provision and promotion of healthy food choices.
6	RETAIL	RETAIL2	Create incentives for encouraging outlets to sell fruit and vegetables.
7	RETAIL	RETAIL3	Regulation required to control promotional offers on unhealthy foods.
8	**PROVISION**	**PROV1**	**School Food Policies:** Prohibit vending machines and tuck shops in post-primary schools.
9	PROMOTION	PROMO 2	Develop legislation to address personalised online marketing targeting children encompassing the role of online influencers/personalities.
10	PROMOTION	PROMO 3	Implement a mandatory Code of Practice for non-broadcast media advertising and develop/support an awareness campaign (population-wide) on the Code.
11	**PROVISION**	**PROV4**	**Public Sector Training and Support:** Develop a nutrition standards programme for caterers/chefs offered through catering/hospitality institutes and provide training and support for caterers/chefs etc.
12	PROVISION	PROV3	Develop a healthy food procurement policy for the public sector and establish a standardised mechanism for publicly funded healthy food procurement.
13	COMPOSITION	COMP2	Food composition targets, for advancing nutritional profiling, should be policy-led and impartial without reliance on the food sector for implementation.
14	LABEL	LABEL3	Create a standardised, simplified FOP labelling system appropriate in the Irish context and put resources in place to disseminate labelling requirements.
15	COMPOSITION	COMP2	Provide guidelines for food preparation/food outlets on composition targets (HFSS).
16	PROMOTION	PROMO 1	Review and evaluate Ireland's Children Code and the General Code by the BAI to ascertain impact and efficacy.
17	PRICES	PRICES4	Review effectiveness of income support for food producers.
18	RETAIL	RETAIL4	Stringent regulation of food offerings/marketing strategies for food service outlets, modelled on established international practice is required and active promotion of the Code of Practice.
19	LABEL	LABEL3	Introduce Nutriscore on a voluntary basis nationally.
20	LABEL	LABEL3	Lead efforts for a mandatory programme (nutrition information system) at EU level.
21	LABEL	LABEL3	Government advocating at EU level for nutrient profiling.
22	PROVISION	PROV5	Increase evidence-based research to inform policy tailored to private sector requirements.

[4] The actions shown in the above table are the weighted policy actions i.e. the weighting percentage scores determined by the experts have been applied.

Figure 10: Importance, achievability and equity of recommended actions (top priorities in green) for the Irish Government: Policy actions



8. Top 10 Recommendations

Five policy actions and five infrastructure support actions were identified as having the highest priority for implementation by the Irish Government.

These 10 recommendations are considered the most achievable, important, and equitable actions by the expert panel. The government is strongly urged to act on the recommendations and improve the health outcomes of Irish citizens, with particular focus on those in disadvantaged or vulnerable groups.

8.1 Policy Actions Necessary to Support Healthy Food Environments

1. School Food Policies

Making sure healthy food choices are available within schools is a priority identified by the expert panel. They considered that the government should implement nutrition standards for all schools and tuck shops operating therein. The implementation of health promotion initiatives and/or programmes in schools is recommended by experts which should be delivered by health professionals. In addition, schools should establish a nutrition forum facilitating collaboration between schools on promotion of healthy food choices in the school environment and supported by appropriate governing bodies.

2. Income Support

Establish a committee with a cross-governmental structure to monitor and evaluate food-related income support programmes for vulnerable population groups.

3. Healthy Food Subsidies

Ringfence revenue from tax on unhealthy foods to improve public health initiatives and provide healthy food subsidies targeted at disadvantaged groups in the community.

4. Zoning Laws

Government must fulfil its commitment to regulate for a healthy food environment as stated in "A Healthy Weight for Ireland Obesity Policy and Action Plan 2016-2025 (OPAP)" (Step 2), by introducing zoning legislation "No Fry Zones" to prohibit the placement of unhealthy food outlets within 400m of primary and secondary schools to reduce the obesogenic environment.

5. Public Sector Healthy Food Choices

Implement a comprehensive policy on nutrition standards for food and beverage provision in public sector settings. The policy should be adapted from existing nutrition standards guidelines for healthcare settings, which was developed by the Health Service Executive (HSE). In addition, monitoring of existing policies and guidelines for effectiveness in provision and promotion of healthy food choices should be conducted.

8.2 Infrastructure Support Actions Necessary to Support Healthy Food Environments

1. Transparency in Policy

Create a committee which monitors implementation of policies and procedures that ensure open and transparent approaches in the development and reviewing of food and nutrition policies and within the legislative process.

2. Political Support

An Taoiseach to demonstrate visible leadership and commitment to the "Obesity Policy and Action Plan 2016-2025 (OPAP)" through presentation of support in the media and support for new or strengthened policies to achieve the targets established in the Obesity Policy. In addition, An Taoiseach should commit to continuing cross-party support for the policy.

3. Engagement Platforms with Civil Society

Establish a formal platform between government and civil society - encompassing community groups, NGOs, academia, and the Citizens' Assembly (public). The platform should strengthen civil society's contribution to changing the food environment and increase civil society's engagement and participation in the planning and implementation of food and public health policies.

4. System-based Approach

Establish a forum consisting of local and national government, policy experts, public health experts, and academia to facilitate information-sharing and knowledge transfer. The forum would collaborate to identify priority areas and implement evidence-based policies to improve the food environment and health outcomes (e.g. a national nutrition policy). The forum will operate in recognition of the "Healthy Ireland Framework 2013-2025" objectives.

5. Health Impacts in Policy

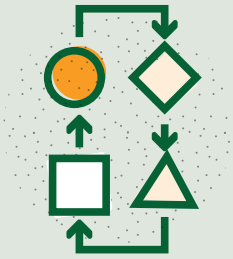
Creation of an evidence-informed guideline or policy by government to ensure that determinants of health and impacts on vulnerable or disadvantaged groups is prioritised in the planning and implementation of food-related policies.

Irish experts would like the government to prioritise a national food and nutrition policy with explicit consideration given to the health impacts on vulnerable groups in Ireland. Policies must be formulated and implemented with cross-departmental commitment to reducing health inequalities.

9. What did Irish Experts think about the Food-EPI process?

Experts were invited to complete an online questionnaire to evaluate the Food-EPI process, professional development through participation, and the impact of the Food-EPI study on policy to improve food environments.

Some of the results are shown below:



Food-EPI Process

85% of experts agreed that the Food-EPI tool was a comprehensive method for assessing policy implementation.

93% of experts thought the Food-EPI process (online rating, workshop and online prioritisation) was fitting.

63% found rating the level of implementation somewhat difficult.

50% found prioritising actions for implementation by government somewhat difficult.

Professional Development

93% of experts agreed or strongly agreed that they increased their knowledge of the Irish food environment and related policies.

93% agreed or strongly agreed their knowledge of international benchmarks to improve food environments increased.

78% agreed or strongly agreed that new professional connections were made, and existing relationships strengthened.

Impact on Policy

100% of experts agreed that the Food-EPI is likely to contribute to beneficial policy change.

93% agreed that it is important to repeat the Food-EPI process to monitor progress of implementing recommended food environment policies, compared to international best practice.

10. What are the key implications for food policy in Ireland?

The Irish government met international best practice in some infrastructure support areas but failed to meet these standards in any policy areas critical to improve the food environment in Ireland. Given the extent of obesity and diet-related disease in Ireland, it is unlikely that adoption of healthier eating habits will occur without major policy interventions. Effective government policies and actions are essential to increase the healthiness of food environments and to reduce the high levels of obesity and diet-related NCDs, and their related health inequalities.

The expert panel were clear that for any progress to be made, there must be visible leadership with cross-party support. The experts were concerned with the level of health inequalities in Ireland, prioritising actions to provide income support and healthy food subsidies for disadvantaged groups and ensuring development of food-related policies do not widen social inequalities.

Of concern are the gaps in implementation within the Irish food environment, namely; the lack of food composition targets established for food service outlets, restriction of unhealthy food promotion through packaging to children, zoning legislation to encourage access and availability of healthy food outlets, and implementing public procurement standards in public sector settings.

11. What are the next steps?

The top 10 priority recommendations are put forward for immediate action by the current government, but all 40 proposed actions should be achievable in time.

The Food-EPI was conducted over the lifetime of the previous government and the process should be repeated in 4 to 5 years. This will facilitate the comparison of government actions and measure their commitment to improving the Irish food environment. It is important to ensure accountability and maintain forward momentum despite changes in government leadership and other dynamic contextual factors.

In the long-term, the Irish research will contribute to a global database for monitoring and evaluating policies directed at improving the food environment and continuing obesity and NCD prevention commitments. As more countries complete the Food-EPI process, there will be continued expansion of the inventory of effective, innovative, and sustainable policy actions, and infrastructure supports, which the Irish government may adopt.

The findings will be key to demonstrating the level of food policy implementation occurring in Ireland compared to our European neighbours over time. By repeatedly monitoring progress, we can establish a roadmap for a healthier food environment in Ireland. The government will remain informed of the best possible options available to ensure the healthiest choices become the easiest choices for all Irish people.

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Appendix 2: Expert Panel

The experts that contributed to the Irish assessment of policies and action prioritisations, and their respective affiliations, are listed below. All experts took part on their own behalf and were not formally representing the organisations to which they belong. The final preparation of this report and the contents here within are solely the responsibility of the authors, and experts have not explicitly endorsed the contents of this report.

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Seamus O'Reilly, Department of Health

Ursula O'Dwyer, Department of Health

Appendix 3: Top Prioritised Policy Actions (weighted & non-weighted)

POLICY ACTIONS (IMP v ACH v EQT) (NON-WEIGHTED)	**POLICY ACTIONS (IMP v ACH v EQT)** (WEIGHTED)	**POLICY ACTIONS (IMP v ACH)** (NON-WEIGHTED)	**POLICY ACTIONS (IMP v ACH)** (WEIGHTED)	**POLICY ACTIONS (IMP v EQT)** (NON-WEIGHTED)	**POLICY ACTIONS (IMP v EQT)** (WEIGHTED)	**POLICY ACTIONS (ACH v EQT)** (NON-WEIGHTED)	**POLICY ACTIONS (ACH v EQT)** (WEIGHTED)
PRICES4 Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PRICES4** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.	**PRICES2** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PRICES2** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.
PROV1 Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PRICES4** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.	**PROV2** Implement new policy and monitor existing policies for the public sector settings on the provision and promotion of healthy food choices.	**PROV2** Implement new policy and monitor existing policies for the public sector settings on the provision and promotion of healthy food choices.	**PRICES2** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.	**PRICES4** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**PRICES2** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.
RETAIL1 Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**PRICES2** Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**PROV1** Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**PRICES4** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.
PRICES2 Ring-fence proceeds for healthy food subsidies targeting disadvantaged communities.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**PROV4** Develop a nutrition standards programme for caterers/ chefs offered through catering/ hospitality institutes and provide training and support for caterers/chefs etc.	**PROV4** Develop a nutrition standards programme for caterers/ chefs offered through catering/ hospitality institutes and provide training and support for caterers/chefs etc.	**PROV1** -Implement nutrition standards for all schools and tuck shops and create health promotion initiatives in schools delivered by health professionals. Convene and support a healthy food nutrition forum for schools.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**RETAIL1** Introduce legislation to ensure a 'No Fry Zone for kids' within 400m of schools.	**PROV1** Prohibit vending machines and tuck shops in post-primary schools
PROV2 Implement new policy and monitor existing policies for the public sector setting on the provision and promotion of healthy food choices.	**PROV2** Implement new policy and monitor existing policies for the public sector setting on the provision and promotion of healthy food choices.	**PROV1** Prohibit vending machines and tuck shops in post-primary schools.	**PROV1** Prohibit vending machines and tuck shops in post-primary schools.	**RETAIL3** Regulation required to control promotional offers on unhealthy foods.	**RETAIL3** Regulation required to control promotional offers on unhealthy foods.	**PRICES4** Create a structure or committee at national level (cross-governmental) to oversee food-related income support programmes for vulnerable population groups.	**PROV1** Prohibit vending machines and tuck shops in post-primary schools.

Appendix 4: Top Prioritised Infrastructure Support Actions (weighted & non-weighted)

INFRASTRUCTURE SUPPORT ACTIONS (NON-WEIGHTED)	INFRASTRUCTURE SUPPORT ACTIONS (WEIGHTED)
GOVER3 Create an oversight committee/ group for ensuring transparency when implementing food and nutrition policy.	**GOVER3** Create an oversight committee/ group for ensuring transparency when implementing food and nutrition policy.
LEAD1 Visible leadership and commitment to the national obesity policy is required by An Taoiseach with cross-party support.	**LEAD1** Visible leadership and commitment to the national obesity policy is required by An Taoiseach with cross-party support.
PLAT3 Regular interaction to inform policy development between government and civil society - encompassing academia, stakeholders, and the Citizens' Assembly (public).	**PLAT3** Regular interaction to inform policy development between government and civil society - encompassing academia, stakeholders, and the Citizens' Assembly (public).
PLAT4 Establish a forum for policy makers, researchers, etc. to facilitate information exchange and knowledge transfer to inform policy development and identify priority areas (e.g. nutrition policy) to improve food environments and health outcomes.	**PLAT4** Establish a forum for policy makers, researchers, etc. to facilitate information exchange and knowledge transfer to inform policy development and identify priority areas (e.g. nutrition policy) to improve food environments and health outcomes.
HIAP1 Create a policy or guideline to ensure health impacts in vulnerable groups are considered/assessed during development of all food-related policies.	**HIAP1** Create a policy or guideline to ensure health impacts in vulnerable groups are considered/assessed during development of all food-related policies.

Notes

PEN
Policy Evaluation Network

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh
School of
Public Health

FOOD
EPI

JPI
a healthy diet
for a healthy life

INFORMAS
Benchmarking food environments

HRB
An Bord
Taighde Sláinte
Health Research
Board