REPORT

Food Environment Policy Index (Food-Epi) for England

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Food Standards Agency England
Food Standards Scotland
Food Standards Wales
Public Health England
Department of Health
HM Treasury
Department for Education
Department for Communities and Local Government
Committee of Advertising Practice
Multiple teams within the Scottish and Welsh governments

Abbreviations

EU: European Union
HFSS: High in Fat, Sugar and/or Salt
INFORMAS: International Network for Food and Obesity/NCDs Research, Monitoring and Action Support
NCD: Non-Communicable Disease
PHE: Public Health England
UK: United Kingdom

Definitions

Components: The two components of Food EPI are Policies and Infrastructure support.

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

Domains: Different aspects of the food environment that can be influenced by governments to create readily accessible, available and affordable healthier food choices, are represented as domains. There are seven domains under the policy component and six domains under the infrastructure support component.

Expert Panel: Public health experts and others with expertise in one or more domains who are independent of the government (e.g. researchers and from non-governmental organisations).

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

Good practice statements: Statements that describe the measures (policies and infrastructure support) that governments put in place to contribute towards a healthier food environment.

International examples: National (or sub-national e.g. regional or city-wide) examples of measures (policies and infrastructure support) that have been put in place and which contribute towards a healthy food environment. The international examples are real-life policies or infrastructure support systems that have been implemented and fully or partially equate to the good practice statements.

EXECUTIVE SUMMARY

The United Kingdom (UK) faces multiple challenges in relation to diets and the food system. Rates of obesity and overweight are on the rise at the cost of an estimated £27 billion to the economy (PHE, 2015). Food prices are starting to rise and 1 in 10 adults are currently food insecure (Taylor & Loopstra, 2016). A multitude of factors deter people from eating healthily including advertising of high fat, sugar and salt (HFSS) products, the proliferation of take-aways, price promotions on less healthy foods, labelling that is confusing, and poor uptake of school meals (Food Foundation, 2016). Effective government policies and actions are urgently needed to address the obesity epidemic, reduce food insecurity, and support sustainable food and farming systems in the UK.

Approach

The Food Foundation, together with the UK Health Forum, World Obesity Federation, Food Research Collaboration and INFORMAS, applied a Food Environment Policy Index (Food-EPI) to England in order to influence government policy to create healthier food environments. Food EPI is a useful tool to: identify and prioritise actions needed to address critical gaps in government policies; compare the extent of implementation of government policies in one country with those in other countries; and track progress in policy over time.

The Index is made up of two components: government policies and infrastructure support. These in turn, are categorized into 13 domains that represent aspects of the food environment (food composition, food labelling, food promotion, food provision, food retail, food prices, food trade and investment) and its supporting infrastructure (leadership, governance, monitoring and intelligence, funding and resources, platforms for interaction, health-in-all policies). Good practice statements that describe 'gold standard' policies that a government could put in place, are set out under each domain.

Application of Food EPI involves:

(1) Compiling evidence on policies to improve the healthiness of the food environment;
(2) Bringing independent experts together to identify the gaps and priority actions; and
(3) Advocating to government on addressing the policy gaps.

Evidence

The Food Foundation undertook a review of government policy documents that relate to the food environment in England and compiled an evidence paper. Documents were accessed through internet search. The evidence paper is divided into seven policy domains and six infrastructure domains. Officials from a range of government reviewed the evidence paper to identify inaccuracies and/or absence of relevant information. Detailed comments were received and amendments were made to the evidence paper.

Policy gaps

During a workshop, 51 experts rated the implementation of government policies and infrastructure support, on a scale from 1 to 5 (1=least implementation, 5=most implementation) with an option of 'cannot rate'= 6. Firstly, policies were rated against international examples of best practice (How well is England doing compared to other countries?). Secondly, policies were rated against the 'gold standard' as set out in the good practice statement (Is England doing as well as it should?). Inter-rater reliability was 0.61 (95%CI=0.55-0.66) for rating against international examples and 0.76 (95%CI=0.70-0.85) for rating against the 'gold standard'.

The experts rated the following policy areas as well implemented in comparison with best practice examples from other countries.

	Score out of 5
1. Systems to regularly monitor obesity rates	4.1
2. Systems to regularly monitor risk factors for non-communicable diseases	4.1
3. Inclusion of ingredient lists and nutrient declarations on packaged foods	3.9
4. Access by the public to key government food and diet-related documents	3.6
5. Existence of dietary guidelines	3.5
6. Adoption of food standards in most schools	3.5

The experts rated the following policy areas as less well implemented in comparison with best practice examples from other countries.

	Score out of 5
1. Formal platforms between government and civil society to discuss food policies and strategies	1.3
2. Subsidies that favour healthy food over unhealthy food	1.4
3. National investment strategies that protect nutrition and health	1.4
4. Planning regulations and zoning to encourage healthy food outlets	1.5
5. Government-led systems based approach to improving the food environment	1.5
6. Advertising in child settings	1.6

Priority actions

In order to prioritise actions to fill the policy gaps, a set of 20 actions were prepared with the help of experts. The actions are recommendations for policies that the government could put in place to improve the food environment in England. The proposed actions were based on existing recommendations from civil society groups and government bodies. Experts were asked to prioritise the actions through E mail consultation. Prioritisation was done separately for policy actions and infrastructure actions using two criteria: (1) Importance (need, impact, equity, other positive effects, other negative effects); (2) Achievability (feasibility, acceptability, affordability, efficiency).

A total of 34 responses were received though in several cases, this represented an organisation response, rather than an individual response. The top priority actions were:

1. Control the advertising of unhealthy food to children
2. Implement the levy on sugary drinks
3. Reduce the sugar, fat and salt content in processed foods
4. Monitor school and nursery food standards
5. Prioritise health and the environment in the 25-year Food and Farming Plan
6. Adopt a national food action plan
7. Monitor the food environment
8. Apply buying standards to all public sector institutions
9. Strengthen planning laws to discourage less healthy food offers
10. Evaluate food-related programmes and policies

Strengths and constraints

The experts provided feedback on the strengths and constraints of the Food EPI method.

Why develop the Food EPI for England?

The United Kingdom (UK) faces multiple challenges in relation to diets and the food system. Firstly, poor diets contribute to one of the highest rates of overweight and obesity in Europe. Two thirds (63.4%) of adults and up to 40% of children aged 11 to 18 years in the UK are either overweight or obese (NatCen & UCL, 2013). Diets are high in processed foods which have low fibre and high fat, sugar and/or salt (HFSS) content. The costs associated with being overweight or obese are £6.1 billion every year for the National Health Service (NHS) and £27 billion for the wider economy (PHE, 2015). Secondly, food has become increasingly unaffordable for people living on low incomes. The cost of food is higher now than it was 10 years ago. Food prices in the UK rose 11.5% in real terms between 2007 and their peak in June 2012 as measured by the Consumer Price Index, following a long period in which they had fallen (UK Gov, 2015). In contrast, incomes have stagnated or even declined in value. Whilst there has been a gradual price reduction since 2013, food insecurity affects 1 in 10 people aged 15 or over in the UK today (Taylor & Loopstra, 2016). Furthermore, less healthy foods are cheaper per calorie than healthier foods (Food Foundation, 2016). This is reflected in eating habits, with those in lower socio-economic groups consuming less fruit and vegetables and oily fish, and more red and processed meat and sugary foods than higher socio-economic groups (Maguire & Montisivais, 2015). Thirdly, as a recent report concluded *"a multitude of factors in the food environment get in the way of … eating healthily."* (Food Foundation, 2016). These factors include advertising of HFSS products, the proliferation of take-aways, price promotions on less healthy foods, labelling that is confusing, and poor uptake of school meals.

Brexit, the result of a referendum to leave the European Union (EU), has thrown up an even greater challenge with respect to UK diets and the food system. Leaving the EU potentially means higher UK food prices in particular for products such as fruit and vegetables that are largely imported from Europe, re-enactment of complicated legislation to protect consumers (e.g. food labelling, food safety), and uncertainty about the future of farming and the environment (Lang & Schoen, 2016). Whatever the outcome of negotiations to leave the EU, it is clear that effective government policies and actions are urgently needed to address the obesity epidemic, reduce food insecurity, and support sustainable food and farming systems in the UK.

The Food Foundation, an independent think tank that tackles the growing challenges facing the UK's food system through the interests of the UK public, recognised that the Food Environment Policy Index (Food-EPI) could potentially help to: compile the evidence on policies to improve the healthiness of the food environment; bring independent experts together to identify the priority gaps; and advocate to government on addressing the policy gaps. The Food Foundation convened a Steering Group for the project which included the following organisations: UK Health Forum, World Obesity Federation, Food Research Collaboration, Food Foundation and INFORMAS. This group embarked on applying the Food EPI in coordination with other non-governmental and academic organisations active in the UK. As there are important policy differences between the four UK nations (England, Wales, Scotland and Northern Ireland), the Food EPI was first applied to England. The UK's decision to leave the EU was taken during development of the Food EPI.

This report describes the process of applying the Food EPI for England, the key results and the strengths and weaknesses of the approach in this context.

What is Food EPI?

The Food EPI is an international tool that can be used to influence government policy to create healthier food environments. It focuses on the food environment (those parts of the food system that directly impinge on consumer choice) rather than the wider food system, and on obesity, overweight and related non-communicable diseases (NCDs). It doesn't cover policies relating to food insecurity or sustainable food and farming systems. Nevertheless, in relation to the food environment, it is a useful tool to:

(1) Identify and prioritise actions needed to address critical gaps in government policies;

(2) Compare the extent of implementation of government policies in one country with those in other countries;

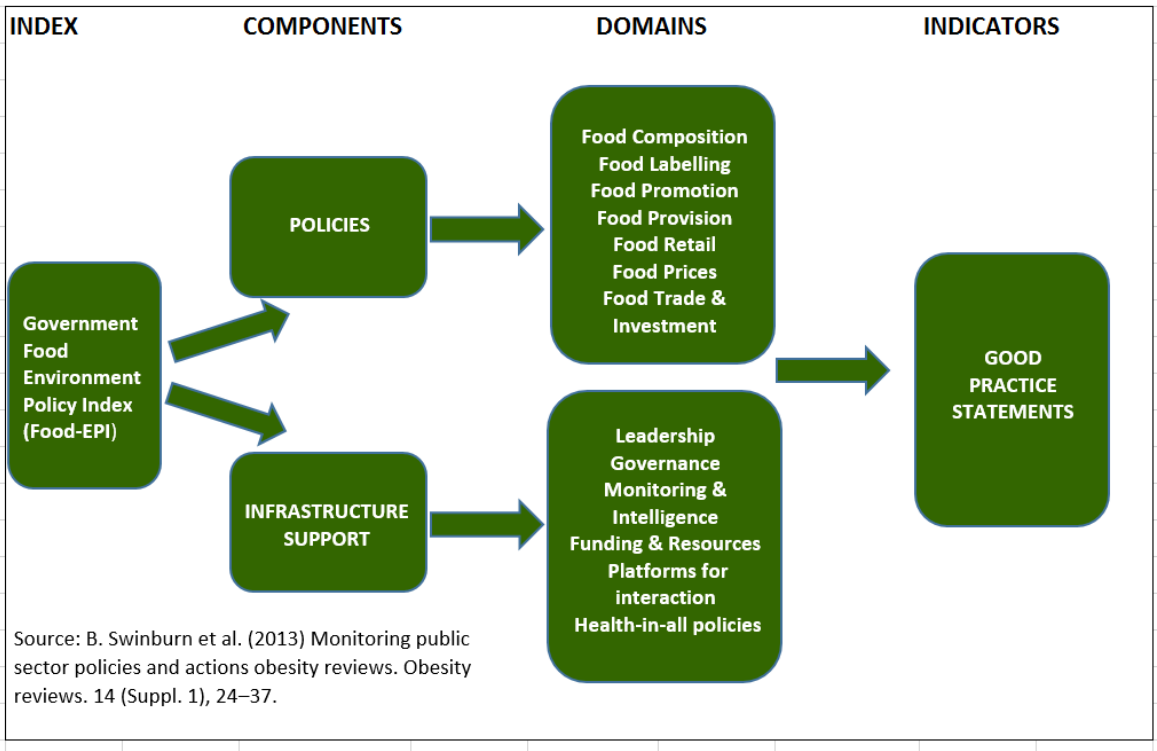
(3) Track progress in policy over time.

The Food EPI has been developed by INFORMAS, an International Network for Food and Obesity/NCDs Research, Monitoring and Action Support and assesses a government's level of implementation of policies related to the food environment. New Zealand was the first country to apply the method in full, and Food EPI is now being applied in a number of other countries including Thailand, Malaysia, Vietnam, Singapore, South Africa, Mexico, Chile, Guatemala, Canada and Australia.

Conceptual Framework

The Food-EPI was conceptualized at a week-long meeting of international experts in November 2012 in Bellagio, Italy, described in detail elsewhere (Swinburn, et al., 2013). As shown in **figure 1**, the index is made up of two components: government policies and infrastructure support. These in turn, are categorized into 13 domains that represent aspects of the food environment and its supporting infrastructure. Good practice statements were developed under each of the 13 domains. These statements describe policies that a government could put in place, which can be considered good practice. The methods for developing the statements are described elsewhere (Swinburn, et al., 2013).

Figure 1: Conceptual Framework for Food EPI



Source: B. Swinburn et al. (2013) Monitoring public sector policies and actions obesity reviews. Obesity reviews. 14 (Suppl. 1), 24–37.

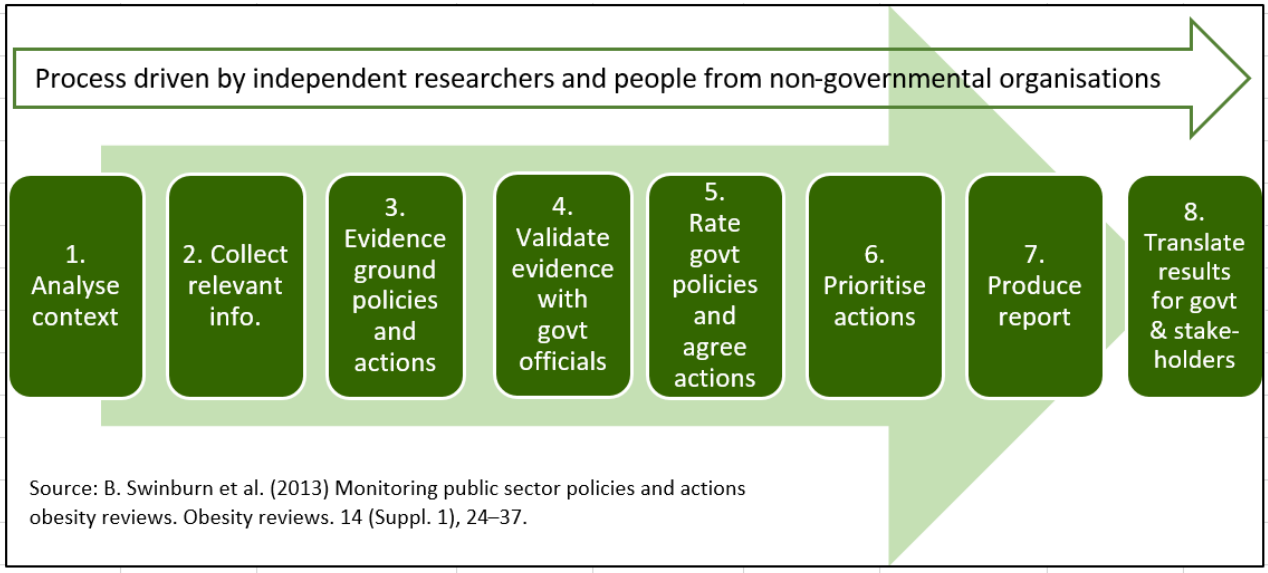
Method

A full description of the Food EPI research approach and methods, as it has been applied to New Zealand (Vandevijvere, et al., 2015) and Thailand (Phulkerd, et al., 2016) has been published. The key elements of the approach are set out below.

Compile evidence, assess performance, agree on priority actions

Eight stages are followed to develop an initial baseline Food EPI, which allows the identification of critical gaps and priority actions. These stages are set out in **figure 2** and can be summarised in three broad steps. Firstly, the evidence on all relevant policies is compiled in an evidence paper which was reviewed for accuracy and completeness by government officials. This covers stages 1-4. Secondly, independent experts are brought together to identify critical gaps and prioritise actions to fill those gaps, equivalent to stages 5-6. Thirdly, the actions are used to advocate to the government for changes to improve the food environment.

Figure 2: Process for assessing the policies and actions of governments to create food environments



Compare internationally

The INFORMAS group has compiled a set of international examples where governments have demonstrated leadership and taken action to improve food environments that can serve as potential 'benchmarks' for other countries. The list includes some of the examples from the NOURISHING framework adopted by the World Cancer Research Fund International (see **appendix 1** for selection criteria). Whilst the list is not comprehensive and continues to be developed, it provides some level of 'benchmark' against which countries can compare themselves (see **appendix 2** for the full list of international examples).

Track progress

The Food EPI can be re-applied at a later point in time to compare the progress made by a government in improving policies that affect the food environment against the initial baseline. This re-application could be done, for example, immediately before an election to assess an out-going government's performance and indicate areas of concern for in-coming governments.

Modifications to the method

The Food EPI method is being applied in a number of different national contexts and is therefore subject to modifications and further development. Since the Food EPI was first conceptualised, a number of

modifications have been made to the domains and the wording of the good practice statements. The list of international examples is expanding and is being continually updated.

How was the evidence compiled and validated?

The Food EPI is founded on evidence. An evidence paper is compiled of the policies and infrastructure support that are currently in place. While this evidence paper becomes quickly outdated as new policies are adopted, it reflects a moment in time and serves as an evidence-based starting point pulling together information from across the food environment.

Evidence Compilation

The Food Foundation undertook a review of government policy documents that relate to the food environment in England to compile the evidence paper. Documents were accessed through internet search. Policies were included where they applied to England, the UK (before devolution in 1999) and EU legislation that is being enacted in England. The main body of the document is based on the legislation and policies that apply to England. Specific legislation and policies for Scotland, Wales and Northern Ireland are described in boxes.

The evidence paper is divided into seven policy domains and six infrastructure domains following the Food EPI conceptual framework (see **fig 1** for the list of domains). A total of 48 good practice statements are set out under the domains. INFORMAS has developed and modified the wording of 47 good practice statements (see **appendix 2**) and these were adopted for the evidence paper. One additional good practice statement was included under domain 6: Food Retail. This was:

6.5 Food hygiene policies are robust enough and are being enforced, where needed, by national and local government to protect human health and consumers' interests in relation to food.

The logic for including this statement is that food hygiene has an impact on health and is particularly relevant in the context of England where there have been a number of major incidents relating to food contamination. This has led to policies being put in place to protect the health of the population.

The evidence is presented for each good practice statement in turn and a summary box of evidence included for each domain. The evidence paper was prepared in the period September 2015 to February 2016.

Evidence Validation

A consultation draft of the evidence paper was circulated to officials within government departments, arms-length departmental bodies, non-departmental public bodies, and self-regulatory organisations for validation in March 2016. Officials were asked to identify inaccuracies and/or absence of relevant information. The policy expertise of individuals, rather than formal endorsement by each organisation, was sought. The evidence paper was reviewed by staff within Food Standards Agency England, Food Standards Scotland, Food Standards Wales, Public Health England, Department of Health, HM Treasury, Department for Education, Department for Communities and Local Government, the Committee of Advertising Practice, and multiple teams within the Scottish and Welsh governments. Detailed comments were received and corrections and amendments were subsequently made to the evidence paper.

No response was received from the Department for Environment, Food and Rural Affairs or Food Standards Northern Ireland. This means that sections 7.1 and 7.2, which relate to food trade and investment, were not reviewed by a relevant expert within the policy community. Likewise, the paper has not been reviewed by officials in the Northern Ireland government. The validated evidence paper can be found in **appendix 3**.

How did experts rate policies?

Bringing independent experts together is an important part of the Food EPI process. These experts identify the critical gaps in policy implementation and prioritise the actions to fill those gaps. The process involves a rating workshop followed by an E mail consultation.

Steering Group and Expert Panel

A small Steering Group was formed to oversee the rating of policies and subsequent stages of the Food EPI method. Representatives from civil society organisations and academia (UK Health Forum, World Obesity Federation, Food Research Collaboration, Food Foundation and INFORMAS) were included.

An Expert Panel was identified by the Steering Group to rate government policies in England and to prioritise a set of actions. The criteria used to select the Expert Panel were: (1) individuals with expertise in one or more domain areas; and (2) individuals from organisations independent of the government. Over 100 people in total were invited to join the Expert Panel from a range of organisations including academic institutions, professional bodies, and civil society. Whilst the majority of people were from England, individuals from Wales, Scotland and Northern Ireland were also included.

Rating Methods

The rating of government policies in England was carried out by a sub-group of the Expert Panel, who were available to attend an all-day rating workshop. The workshop took place in May 2016 at the University of Westminster in London. The venue is a 'neutral' environment not linked to government.

Participants

All members of the Expert Panel were invited to participate in the rating workshop. A total of 59 individuals participated in the workshop: 51 independent experts from the Expert Panel plus an additional 8 government officials who came as observers.

Materials

Materials were prepared in advance of the workshop and sent to confirmed participants. These included:

- Evidence paper (see **appendix 3**)
- Methods paper (see **appendix 4**)
- Methods FAQ (see **appendix 5**)
- Glossary of terms (see **appendix 6**)
- Set of power-points (see **appendix 7**)

Participants were requested to read through the documents, in particular the evidence paper, in order to be prepared for a productive discussion at the workshop.

Approach

The rating workshop was divided into two sections. In the morning, the Expert Panel rated government policies and infrastructure support. The afternoon was devoted to discussion of actions needed to address critical implementation gaps identified through the rating process. The agenda is included in the methods paper (see **appendix 4**).

Who did the rating?

Only the non-government members of the Expert Panel took part in the rating. Some independent participants chose not to take part in the rating process either because they were not present throughout the whole day or preferred to observe the process. A total of 41 participants completed the rating. The list of organisations of those who took part in the rating can be found in **appendix 8**. Consent to include these details was obtained from participants during the workshop.

What did they rate?

A rating was required for each of the 48 good practice statements. In advance of each rating, two power-point presentation slides were shown for each good practice statement: the first presented evidence of measures taken by the government in England to partially or fully adopt policies related to that area; the second slide presented examples from other countries of measures taken by governments to partially or fully adopt relevant policies. These international examples were taken from those contained in **appendix 2**. An example from England (where it existed) was always included on the second slide to reinforce the existence of policies already being implemented in England. The entire set of power-point presentation slides can be found in **appendix 7**.

Participants were asked to rate the current degree of implementation of policies and infrastructure support in England, on a scale from 1 to 5 (1=less than 20% implementation, 2=20-40% implementation, 3=40-60% implementation, 4=60-80% implementation, 5=80-100% implementation). Raters were asked to consider the previously presented evidence, and their own informed judgement, when rating. An option of 'cannot rate'= 6 was included for those who felt they lacked sufficient evidence to come to a decision.

Two forms of rating were conducted. Firstly, policies were rated against the international examples (How well is England doing compared to other countries?). Secondly, policies were rated against the 'gold standard' as set out in the good practice statement (Is England doing as well as it should?).

How did they record their ratings?

Each participant involved in the rating was provided with a paper rating sheet (see **appendix 9**) and assigned a hand-held 'TurningPoint' clicker. The paper rating sheet was used to rate policies both against international examples and good practice statements. Space was made available on the rating sheet for comments.

Participants rated only the good practice statements using the clicker which was integrated into the powerpoint slides. Participants rated at the end of the presentation of each domain and anonymised results were visually displayed on screen following each rating. The TurningPoint system tracked responses to individual clickers, which allowed inter-rater reliability to be analysed.

How were the rating results analysed?

The ratings from the 'TurningPoint' clicker were automatically transferred onto an Excel sheet. These were checked against paper records and additional data from the rating sheets entered manually by members of the Steering Group. All ratings of '6' (insufficient information to rate) were excluded from the analysis.

Rating Results

Average ratings

The rating of government policies could range from 1 (less than 20% implementation) to 5 (80-100% implementation). On average, the participants rated policies relating to the food environment in England as mid-way between these extremes both against international examples and good practice statements (see **table 1**), though the scores for when comparing policies in England with international examples tended to be higher. This means that participants judged that England was, in general, doing averagely in relative terms (compared to other countries) and in absolute terms (compared to a 'gold standard'). One possible factor that may have contributed to the ratings was the collective nature of the rating exercise that led to a negative 'herd mentality' (see section on **Constraints** of the method for more details).

Table 1: Results of rating against International Examples and Good Practice Statements

	International examples	Good practice statements
Average rating	2.5	2.0
Range of average rating	1.3 – 4.1	1.2 – 3.9
Inter-rater reliability	0.61 (95%CI=0.55-0.66)	0.76 (95%CI=0.70-0.85)
# rated as '6'	171 / 1968	95 / 1968

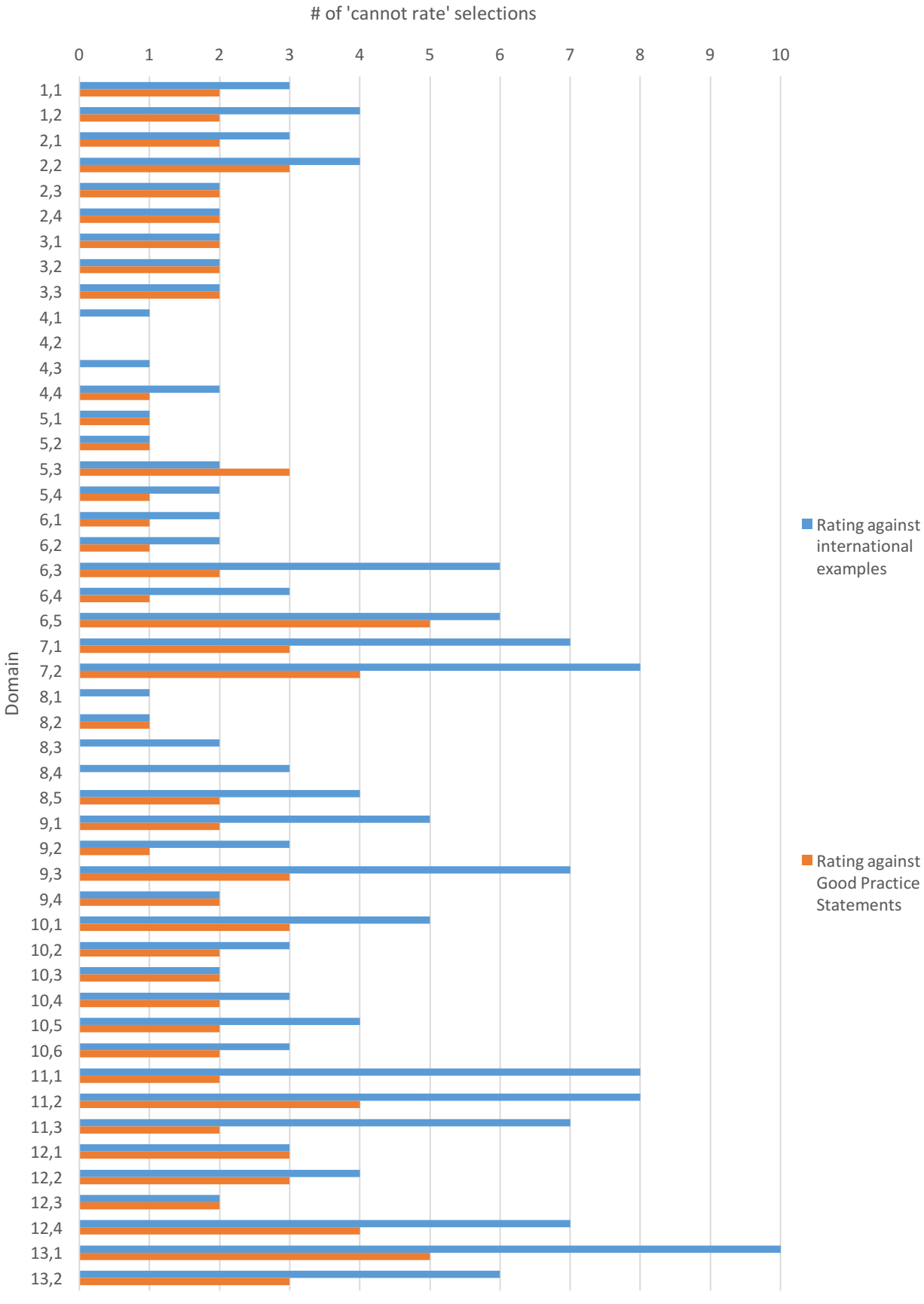
Inter-rater reliability

Inter-rater reliability was ascertained using the Gwet AC2 inter-rater reliability coefficient and was relatively high. The level of agreement between raters was higher when rating against good practice statements (0.76 95%CI=0.70-0.85) compared to rating against international examples (0.61 95%CI=0.55-0.66). Participants expressed some concerns with regard to the international examples (see section on **Constraints** of the method for more details), which may have made it more difficult for them to make judgements against international examples in a consistent fashion.

Inability to rate

Participants were given an option of 'cannot rate'= 6 where they felt there was insufficient evidence to come to a decision. These data were not included in the analysis. As **figure 3** shows, more participants gave a '6' rating in relation to the international examples (blue bars) compared the good practice statements (orange bars). The domains which caused the greatest numbers of people to rate '6' were Domain 13: Health in All Policies; Domain 11: Funding and Resources; Domain 7: Food Trade & Investment. Evidence was limited in these domains both in terms of policy implementation in England and in the rest of the world (see section on **Constraints** of the method for more details).

Figure 3: Inability to rate



Ratings of policies and infrastructure support

Figures 4 and **5** illustrate the average rating score for all participants for all 48 good practice statement. A low rating indicates that participants judged that there had been limited adoption of policies in relation to the relevant good practice statement, while a high rating indicates that participants judged that policies had been well adopted. A short-hand form of the good practice statements is used in the lists below and graphs. See **appendix 2** for a full list of good practice statements and international examples.

There is variation in ratings of policies against international examples and good practice statements for all of the domains There wasn't a lot of consistency within a domain but in general, the policies that received the highest scores (most implementation) were in the domains of food labelling (domain 2), leadership (domain 8) and monitoring & intelligence (domain 10).

The Expert Panel gave the highest scores (i.e. good implementation of policies) to the following ten policy areas when rated against international examples (starting with the highest score)

1. **Monitoring** of overweight, obesity
2. **Monitoring** of NCD risk factors
3. **Labelling** with regard to nutrient declarations
4. **Access to information** and key government documents relating to the food environment
5. **Dietary guidelines** established
6. **School food** standards
7. **Population intake** targets established
8. **Labelling** with regard to FOP
9. **Monitoring** of nutrition status
10. **Food composition standards** established

The same policy areas received the highest scores when rated against good practice statements with the addition in eighth place of existence of a health promotion agency with dedicated funding.

The Expert Panel gave the lowest scores (i.e. poor implementation of policies) to the following ten policy areas when rated against international examples (starting with the lowest score):

1. **Platforms** between civil society and government
2. **Subsidies** in favour of healthier foods
3. **Investment** management and **non-food policy** development that takes account of public health nutrition
4. **Planning** policies that favour healthier foods
5. **Systems based** approach to improving food environments
6. **Advertising** in child settings
7. **Coordination** mechanisms across different government departments
8. **Workplace food** provision
9. **Advertising** through non-broadcast media
10. **Comprehensive implementation plan** to improve food environments.

The above policies were also scored lowest when rated against good practice statements with the addition of processes to assess the impact of policies on health (sixth lowest) and restriction of commercial interests in government policy development (tenth lowest).

Figure 4: Rating against international examples

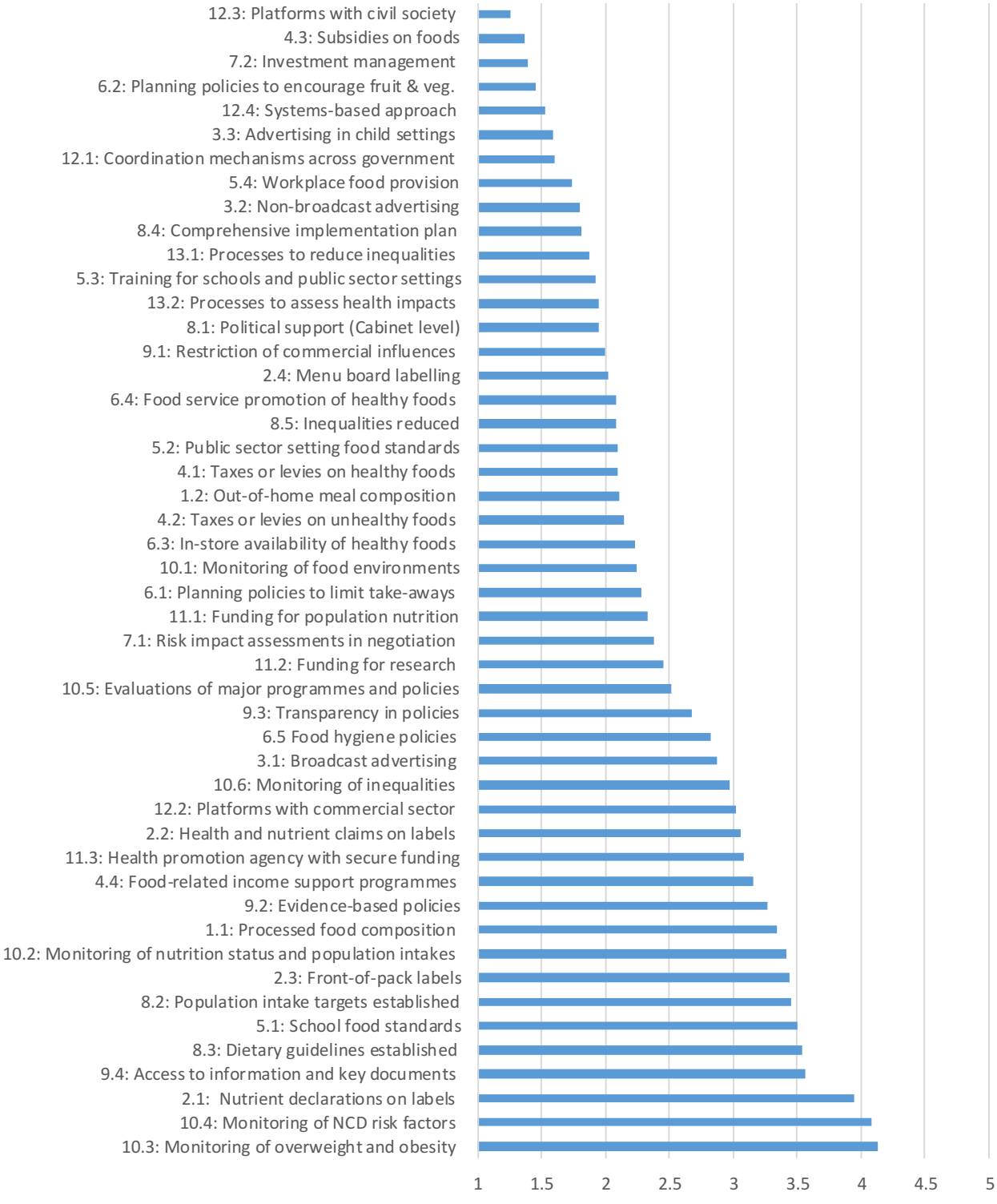
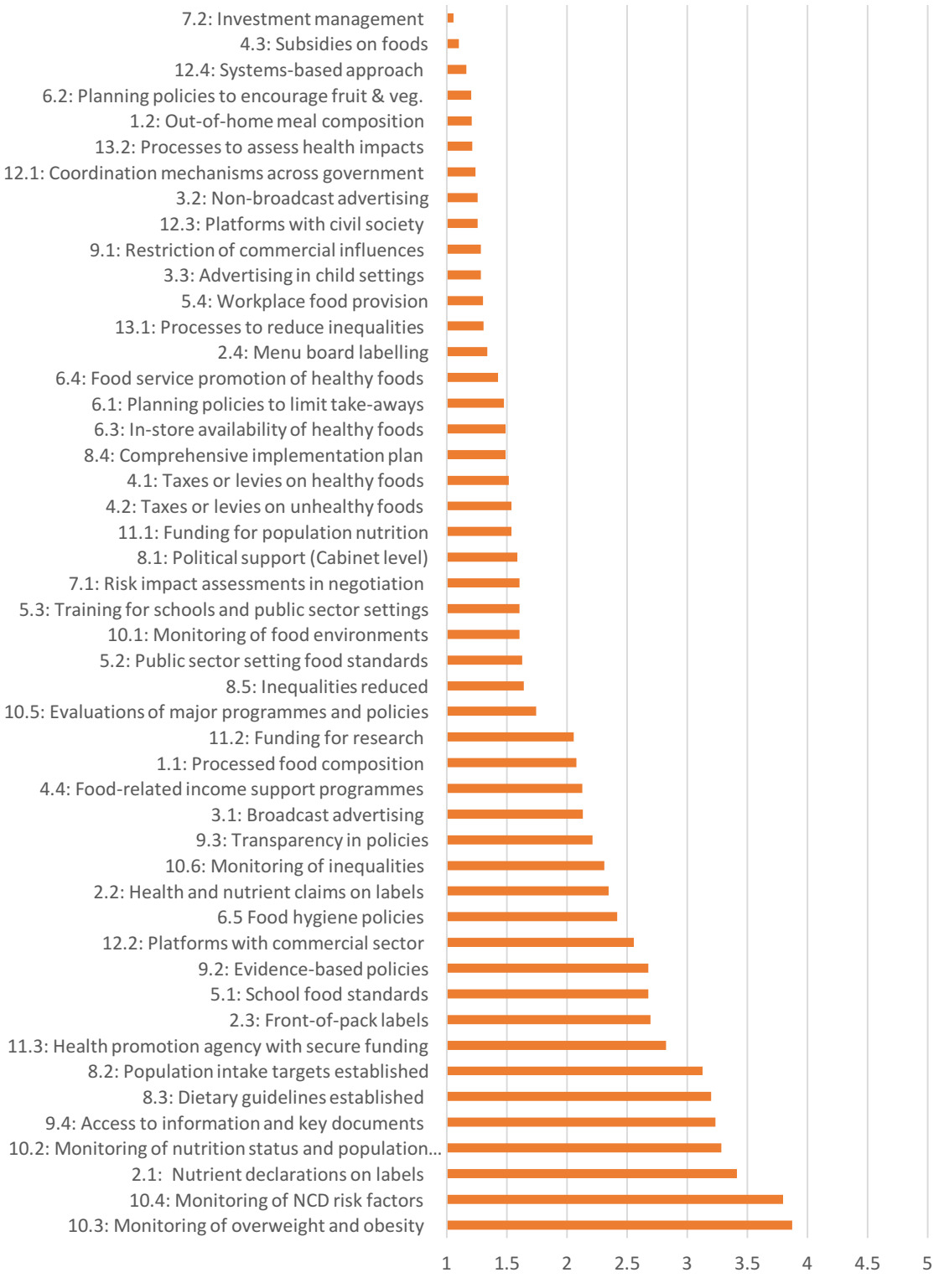


Figure 5: Rating against good practice statements



How were the actions prioritised?

Prioritisation Methods

Developing the actions

Step 6 in the Food EPI process involves prioritising a set of actions. These actions are recommendations for policies that the government could put in place to improve the food environment. The purpose is to reach consensus on a set of priority recommendations that can be used by different organisations and groups to advocate for implementation of policies that will positively impact the food environment and in turn improve diets and health outcomes.

A long list of actions was drafted by the Steering Committee in advance of the rating workshop. Actions were prepared that related to each of the good practice statements. The proposed actions were based on existing recommendations for action from civil society groups active in England (Obesity Health Alliance, Jamie Oliver Food Foundation, Fabian Society) and government bodies (Public Health England).

Further refinement of the actions took place during group discussion sessions at the workshop which resulted in a list of 60 potential actions.

A short list of 20 actions was identified by enlisting the support of individuals from the Expert Panel who have specific knowledge and expertise in a particular domain (see **appendix 10** for list of names). These experts were asked to (1) Refine the wording of the actions to ensure that they were as SMART as possible; (2) Prioritise the actions (high, medium, low) based on importance and feasibility. The short-list of actions was comprised of the reworded actions allocated high priority by the experts. Experts were not available to provide input to domains 1, 7, 10, 12 and 13. The Steering Group therefore refined and prioritised these actions on the basis of notes from the Rating Workshop group discussions.

Prioritising the actions

The entire Expert Panel was invited to prioritise the short list of actions. Each Expert Panel member was asked to complete an excel sheet prioritisation form (see **appendix 11**), which was sent by E mail. The first sheet contained instructions. The second sheet allowed Expert Panel members to prioritise 12 actions relating to policy. The third sheet allowed Expert Panel members to prioritise 8 actions relating to infrastructure support.

Prioritisation was done separately for policy actions and infrastructure actions using two criteria: (1) Importance (need, impact, equity, other positive effects, other negative effects); (2) Achievability (feasibility, acceptability, affordability, efficiency). The criteria are explained in **table 2** (below).

Table 2: Explanation of prioritisation criteria

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

The 12 policy actions had a total of 60 points which could be allocated across the statements for importance (equivalent to an equal weighting of 5 x 12 policy actions) and a further 60 points for achievability. The more points allocated, the higher the priority. Actions could be allocated no points and only whole numbers could be used.

In addition, Expert Panel members were informed that the two scores (for importance and achievability) would be combined to result in one score for each action. They were asked whether they thought the importance and achievability criteria should be weighted the same or not. They were able to change the weighting from 50%:50% if they thought that this was warranted.

A similar exercise was undertaken for the 8 infrastructure support actions though in this case a total of 40 points (equivalent to an equal weighting of 5 x 8 infrastructure actions) could be allocated for importance and a further 40 points for achievability.

The prioritisation of actions exercise took place between July and September 2016.

Prioritisation Results

The excel sheets were sent out to a total of 107 Expert Panel members. A total of 34 responses were received though in several cases, this represented an organisation response, rather than an individual response.

Priority policy actions

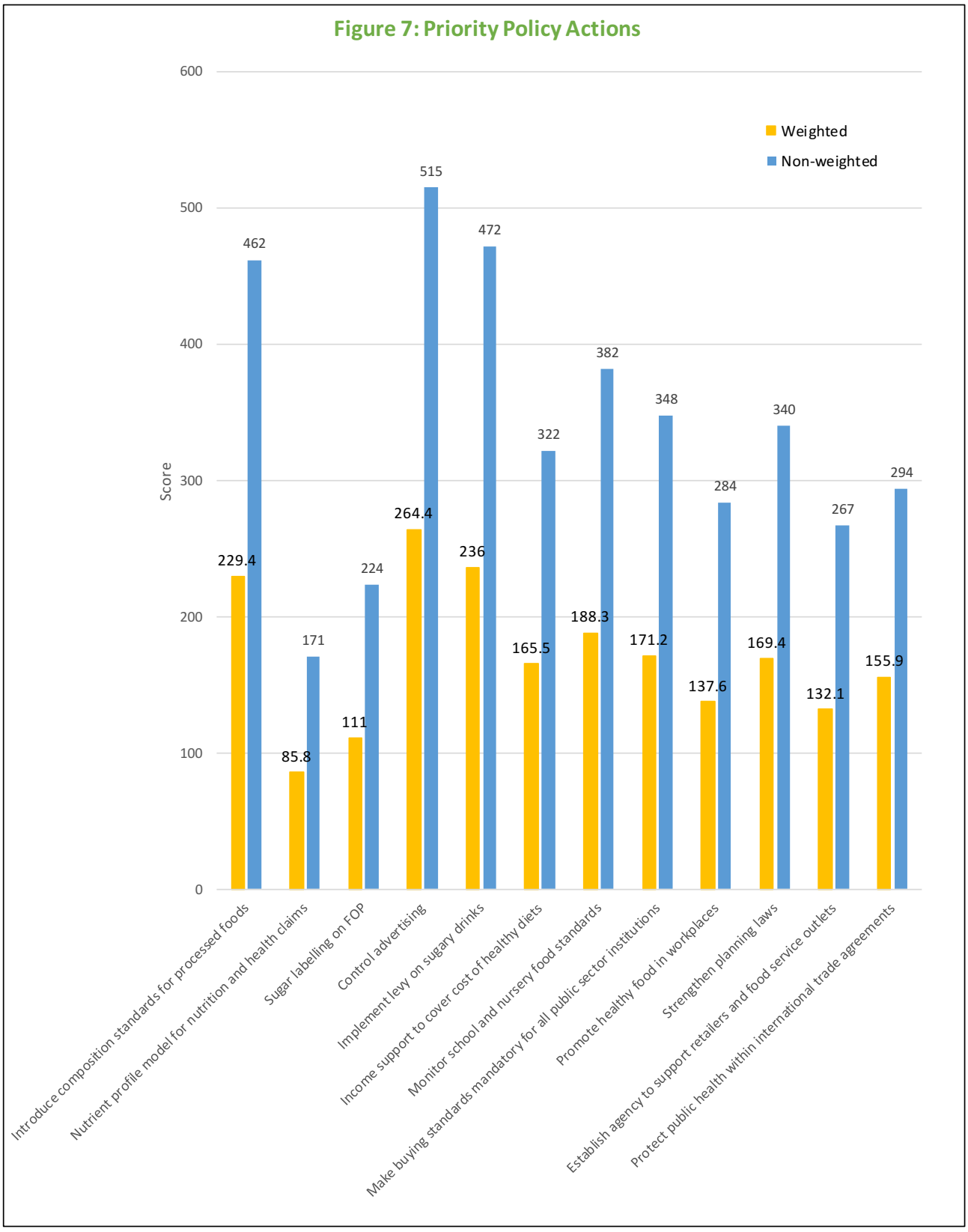
As **figure 7** shows, the order of policy actions was the same whether for unweighted and weighted scores. The scores and full text of each policy action are contained in **appendix 12.**

The six most important policy actions (out of a total of 12 actions) are, in order of prioritisation:

1. **Control advertising of HFSS foods to children:** Government to significantly reduce the exposure of children under the age of 16 years to the promotion of HFSS food and drink by removing such promotion from: a) broadcast media before 9pm; b) all non-broadcast media (including digital) which have an above average child audience; and c) the sponsorship of cultural and sporting events which appeal to children. (Average non-weighted score = 515, range 2-30)
2. **Implement the levy on sugary drinks:** Government to implement the levy on sugary drinks by April 2018 and redesign the levy as a sales tax to ensure that the intervention provides a clear price differential at point of sale to promote a reduction in consumption of sugary drinks. (Average non-weighted score = 472, range 1-20)

3. **Introduce composition standards for processed foods:** Government to introduce composition standards for processed foods and dishes sold through food service in relation to free sugar, saturated fat and salt. (Average non-weighted score = 462, range 4-20)
4. **Monitor school and nursery food standards:** The Department of Education to work with Ofsted, the Care Quality Commission and Food Standards Agency to set out a new framework and independent body for inspection and monitoring of school and nursery food standards in England. (Average non-weighted score = 382, range 2-10)
5. **Introduce mandatory buying standards for all public sector institutions:** Government to make Buying Standards and application of the balanced scorecard for Food and Catering Services mandatory for all public sector institutions by 2020. (Average non-weighted score = 348, range 0-11)
6. **Strengthen planning laws to discourage less healthy food offers:** Government to support local authorities to develop supplementary planning guidance and provide them with sufficient powers for a simplified mechanism of planning laws to enable them to both promote healthier food options and discourage less healthy offers. (Average non-weighted score = 340, range 1-10)

Figure 7: Priority Policy Actions



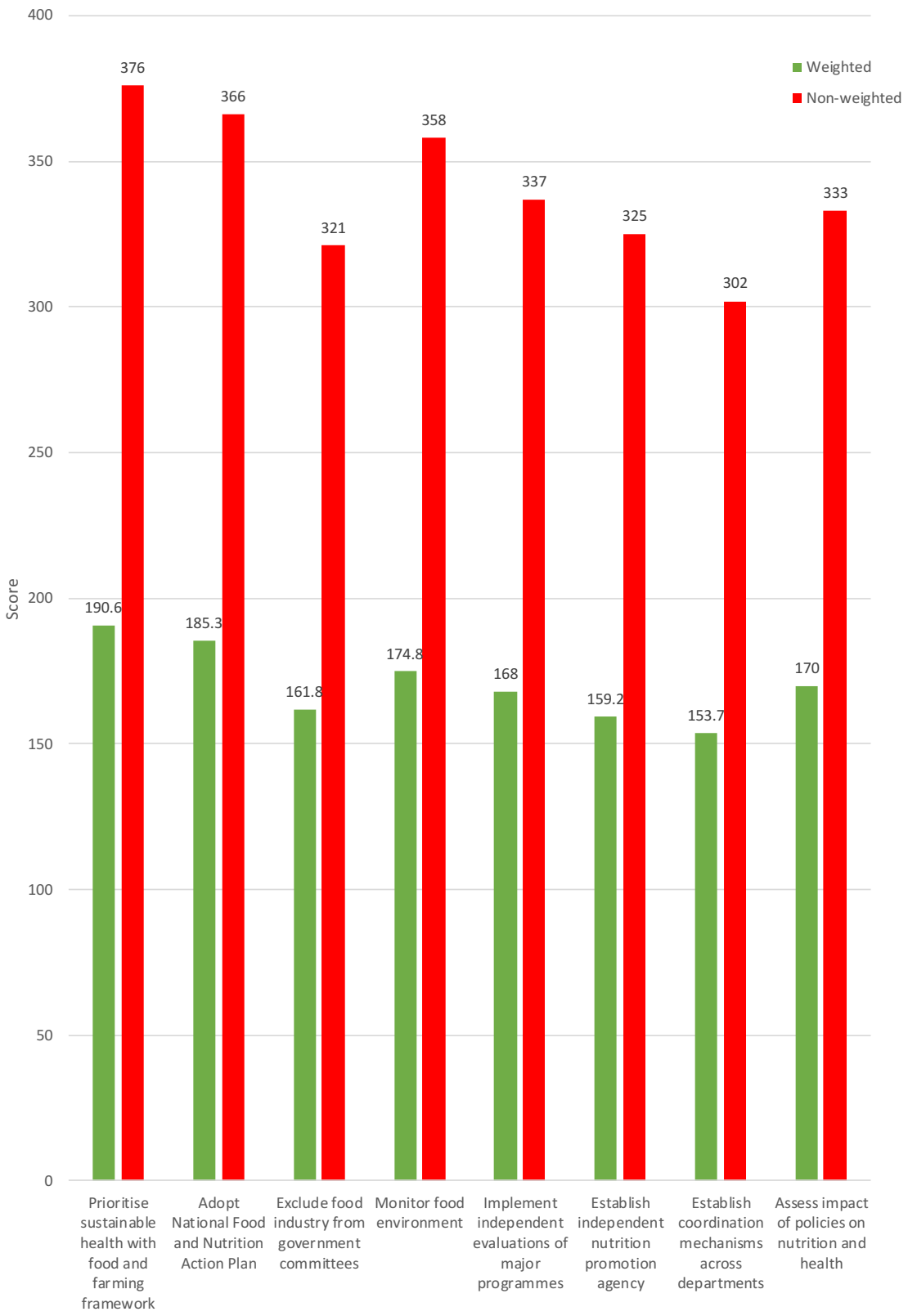
Priority infrastructure actions

There was also no difference in the order of scores for infrastructure actions whether they were weighted and unweighted scores for infrastructure (see **figure 8**). The scores and full text of each infrastructure action are contained in **appendix 12.**

The four (out of a total of eight) most important infrastructure actions are, in order of prioritisation:

1. **Prioritise health and the environment in the 25-year Food and Farming Plan:** Prioritise sustainable health and environment principles within the government's 25-year Food and Farming Plan. (Average non-weighted score = 376, range 2-11)
2. **Adopt National Food Action Plan:** Parliament to adopt a National Food and Nutrition Action Plan, to ensure healthy and sustainable food supplies affordable to all. (Average non-weighted score = 366, range 3-10)
3. **Monitor the food environment:** Government to identify a suite of indicators to monitor the food environment to be included in the public health outcomes framework. (Average non-weighted score = 358, range 2-10)
4. **Implement independent evaluations of major programmes:** Government to outline a plan to evaluate policies related to the food environment and commission independent evaluations of major programmes and policies. (Average non-weighted score = 337, range 2-10)

Figure 8: Priority Infrastructure Support Actions



What are the strengths and limitations of Food EPI?

Strengths

There are several advantages to applying the Food EPI in England. An established method has been used to compile evidence, bring together independent experts and prioritise policy actions with the aim of improving the food environment. Furthermore, use of the same method in a large number of countries allows inter-country comparisons. While details of the method were modified for the context of England, Food EPI provided a useful overall framework. The existence of a baseline Food EPI means that it is possible to re-apply Food EPI in the future to measure progress over time.

The evidence paper is useful in bringing together a large body of policies, covering legislation and guidance, that govern the food environment in England. The evidence paper was generally well received by a range of government officials from different departments who provided detailed comments on the text. This provides a useful resource for government and non-government agencies wishing to examine policy gaps and coherence.

The Rating Workshop brought together a group of academics, people from civil society organisations and government observers with an interest in the food environment. It was not only an opportunity to focus on the gaps in the implementation of policies but also to network and learn about different aspects of the food environment.

Most importantly, the outcome of the Food EPI process is a set of actions that can be used to bring together diverse groups around a common set of advocacy messages.

Limitations

There were, however, a number of limitations when applying the Food EPI method. Many of these limitations were highlighted during the Rating Workshop. The rating sheets used in the workshop (see **appendix 9**) had a space in which participants could make comments. Further comments were received from four participants who completed the workshop evaluation form that was sent out at the same time as the action prioritisation excel sheet. The limitations set out below are a compilation of the comments received from workshop participants. Where relevant, direct quotes from workshop participants are included in italics.

International examples

- **Insufficient or weak evidence on international examples.** This was particularly true for some domains especially for Domain 7: Food Trade & Investment; Domain 9: Governance; and Domain 11: Funding & Resources.
- **International examples are not comprehensive**. Many international examples were not included e.g. dietary guidelines for Canada, France.
- One participant suggested that it would be useful to apply a consistent method to the compiliation of international examples so that comparable data are available.

Good practice statements

- **Some good practice statements are misleading or unclear.** One example is on health and nutrient claims on food labels

  "The good practice statement is misleading – should be about whether health claims are made on unhealthy foods."

- Words like 'ensure' led some participants to score lower e.g. where voluntary guidelines were in place but these were not mandatory.

  "*Some statements focus on effectiveness of current policies, others just whether they exist. I presume there is a rationale for this, but note responses on different statements are not necessarily comparable for this reason."*

- Terms like 'nutrients of concern' were too limited as the term doesn't include fibre, fruit & veg, red/processed meat.

Difficulties in rating

- **Difficulty in rating against international examples.** Quite a few participants noted that they found it hard to rate against incomplete international examples about which they had incomplete knowledge.

  "*Where there is not much action in UK, (and it) is measured against not much action elsewhere, it is v. hard to rate meaningfully."*

  "Not particularly easy (to rate). Depends on our (imperfect knowledge and appreciation of food policy 190 other countries)"

  "Difficult (to rate) because I didn't necessarily know what the best international examples were, and because it's difficult to take individual policies in isolation"

- **Effective implementation is hard to rate.** For example, domain 10: Leadership was especially difficult to rate because policies may be in place but their degree of effective implementation is questionable.

- **Difficult to provide single rating when a number of areas are covered.** For example, it is difficult to rate when the good practice statement covers a number of different nutrients which may be subject to different policies e.g. in food composition – much more success with salt in England compared with fat or sugar.

- **Better if rating had been done as an individual exercise on line.** Several participants noted that it was not ideal to score in a workshop setting and that they would have preferred to have carried out the rating on-line.

  "*If I had scored them at home, alone, I would have done so with greater care, more internal consistency, because I might have back-tracked and amended some in order to give a more realistic distribution of good and not so good areas, without the influence of others and without so much time away from the department."*

  Herd mentality set in very quickly, exacerbated by feeding back the scores after each item.

- **Collective scoring led to lower scores.** The mood of the room was to be hypercritical so, even with anonymous voting it was very hard to score things highly.

  "The clickers were fun and keeps us awake, but I wonder whether and how seeing responses of others influences our own responses."

What are the next steps?

Advocacy Plan

The final and most important phase of the Food EPI process involves advocating to the government for a change in policies and infrastructure support to improve the food environment. The Steering Group is preparing an advocacy plan including the preparation of a policy briefing paper which will be launched at a Parliamentary event in November 2016 and discussed at national level events. The technical report will be made available on-line and an academic paper will be considered.

Bibliography

Food Foundation, 2016. *Force-Fed.* [Online] Available at: http://foodfoundation.org.uk/food-foundation-launches-its-first-report-force-fed/

Lang, T & Schoen, V. 2016. *Food, the UK and the EU: Brexit or Bremain?* [Online] Available at: http://foodresearch.org.uk/food-and-brexit/

Natcen & UCL, 2013. *Health Survey for England.* [Online] Availabel at: https://www.gov.uk/government/statistics/health-survey-for-england-2013

PHE, 2015. *Making the case for tackling obesity.* [Online]
Available at: http://www.noo.org.uk/slide_sets

Phulkerd, S., Vandejivere, S., Lawrence, M. & et al., 2016. Level of implementation of best practice policies for creating healthy food environments: assessment by state and non-state actors in Thailand. *Public Health Nutrition.*

Swinburn, B., Sacks, G. & Vandevijvere, S., 2013. INFORMAS: overview and key principles. *Obesity Review,* Volume 14, pp. 1-12.

Taylor, A. & Loopstra, R., 2016. *Too Poor to Eat: Food Insecurity in the UK,* s.l.: s.n.

UK Gov, 2015. *Food Statistics Pocketbook.* [Online]
Available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/526395/foodpocketbook-2015update-26may16.pdf

Vandevijvere, S., Dominick, C., Devi, A. & Swinburn, B., 2015. International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support. *Bulletin of World Health Organisation,* 93(5), pp. 294-302.

Vandevijvere, S. & Swinburn, B., 2015. *Pilot test of the Healthy Food Environment Policy Index (Food-EPI) to increase government actions for creating healthy food environments. BMJ Open 2015..* [Online]
Available at: http://bmjopen.bmj.com/content/5/1/e006194.abstract