

Nutrient Profiling: Changing the food of Britain



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1 SUMMARY

Although the phrase ‘*health in all policies*’ is frequently cited as a strategy for achieving better public health, the mechanisms for implementing such a strategy remain elusive. It remains the case that many government policies are required to report business impact statements and some must provide environmental impact statements, the development of systematic health impact statements has been neglected.

This is regrettable. Public health effects are embedded in a wide range of social activities which are shaped and governed by explicit policies, from employment, housing, transport, energy and communications to education, social support, the design of the built environment. Such health effects are certainly important consequences of policies that shape the food supply.

Part of the cause of the failure to ensure a health-in-all-policies approach and to adopt health impact assessments is a lack of clarity about what needs to be assessed and how to assess it. The food supply system is a complex web of interacting activities, and the specific connections between this complex system and the resulting nutritional status of the population are difficult to measure. Complexity, however, does not need to lead to inaction. The supply of commodities such as fats, oils, sugar, starches, fruit and vegetables, and the addition of salt and the removal of key nutrients, are key features of the food chain which affect the quality of the diet and the consequential risk of obesity and diet-related disease. Interventions are justifiable and have been recognised as necessary by successive UK governments.

In order for the interventions to be specific, and in order that they can be evaluated for their effects, a set of assessment tools is needed. Such tools include routine surveys to monitor population nutritional status and to evaluate trends and the impact of policies, along with a set of dietary guidelines against which food supply and consumption patterns can be assessed. A further tool is also essential: a method for assessing individual food products for their contribution to dietary health. This third tool – the nutritional assessment of food and food products – has the potential to address major food-related problems across the supply chain for the better promotion of health.

In this report we attempt to assess the opportunities for influencing domestic UK food supplies in order to improve nutrition security, focussing on the use of nutrient profiling to categorise food products, and the application of nutrient profiling to food policy implementation. The overall purpose is to map and scope the opportunities for interventions to promote public health using nutrient profiling, particularly where nutrient profiling can be used as a tool for defining products and assisting decisions about their categorisation.

The Introduction describes the concept of *nutrient profiling* and its history in the UK and outlines the purpose of the present report. The next section describes the concept of *nutrition security* which is defined here to include both food supply and food consumption issues. The UK population’s need for improved food consumption patterns is noted, and the UK government’s policy response described.

In the subsequent section we return to the development of nutrient profiling and the potential to use nutrient profiling as a tool for better development and governance of *food supplies* and the protection and promotion of improved food consumption patterns. We then review recent and current food-related policy documents, and highlight those *food policies* for which nutrient profiling can provide a useful tool to aid their implementation and evaluation. From this review

we conclude that there are many opportunities to extend the application of nutrient profiling to improve the nutritional quality of the British diet.

An extensive table (Annex 1, provided in the pdf version only) gives further details of the policies identified and the potential, or already-existing, examples of the application of nutrient profiling to improve the implementation of these policies.

2 INTRODUCTION

There is widespread recognition that strategies to improve dietary health require policies in a broad range of areas. Government representatives agreed on the need for cross-sectoral health strategies to tackle obesity and non-communicable diseases (NCDs) at a High Level Meeting on NCDs held by the United Nations General Assembly in September 2011.¹ Within Europe, a continuing emphasis on ‘*health in all policies*’ and the need for action across all sectors and involving virtually all government departments is shown in recent publications² and underpins the ‘*whole-of-government*’ principles in the European *Health 2020* strategy.³

As a means of supporting policy development and implementation to promote healthier food supplies, nutrient profiling has emerged as a valuable tool which can assist policy-makers in defining their objectives and their means of achieving them. Earlier debates about ‘*no such thing as good and bad foods, only good and bad diets*’ have been replaced by debates about ‘*foods to promote*’ and ‘*foods not to promote*’, and more specifically foods which can be advertised to children and those which cannot.

This transition from a narrative in which foods could not be defined for their potential benefit or harm to a narrative specifically identifying the components of individual foods and making an assessment of each food product has been greatly aided by the development of three stages in food policies: the development of food-based dietary guidelines, the development of criteria for defining key nutrients in terms of high or low content, e.g. for food labelling, and finally the development of schemes which can provide a single, integrated score for a food product in terms of its contribution to nutritional health, e.g. for permitting health claims or permitting marketing directly to children.

In Britain, these three stages have been greatly assisted by support from the Coronary Prevention Group, an organisation which has played a significant role in the creation of food-based dietary guidance for the general population, developed the scheme for the labelling of foods to show their nutrient content using interpretative scoring methods (high-medium-low, red-amber-green) and most recently in the development of a single scoring method for use in the regulation of advertising of foods and beverages on children’s TV programming, implemented by the UK regulator Ofcom.⁴

Many non-governmental health and advocacy organisations have made use of the Coronary Prevention Group’s early work on nutrient profiling, including the International Obesity TaskForce and International Association for the Study of Obesity (now World Obesity Federation), Consumers International, Which?, National Heart Forum (now UK Health Forum), British Heart Foundation and Sustain, all of whom have appreciated the value of this work and promoted nutrient profiling for food labelling and food marketing controls at government, European Commission and World Health Organization levels.

This advocacy work has had significant impact, as governments have come to recognise the value of providing clear consumer information, of protecting children from inducements to consume unhealthy diets and seeking to regulate the use of health and nutrient claims to promote food products. The UK Food Standards Agency commissioned a series of investigations into the use of nutrient profiling for

¹ UN General Assembly *Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases*. A/66/L.1. New York: United Nations, 2011.
http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1

² D McQueen et al (eds) *Intersectoral Governance for Health in All Policies*. Copenhagen: World Health Organization on behalf of the European Observatory on Health Systems and Policies, 2012.

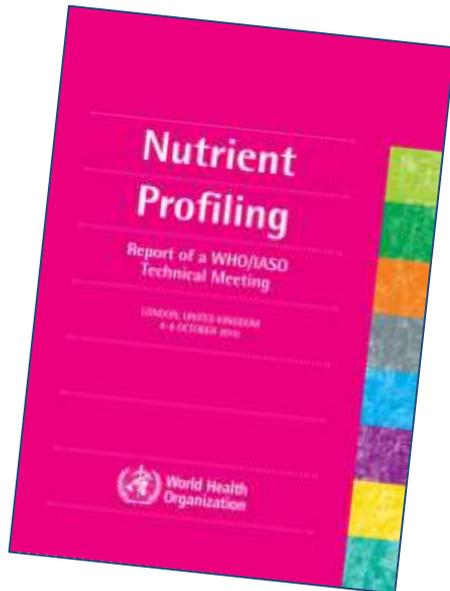
³ I Kickbush, T Behrendt (eds). *Implementing a Health 2020 vision: governance for health in the 21st century. Making it happen*. Copenhagen: World Health Organization, 2013.

http://www.euro.who.int/_data/assets/pdf_file/0018/215820/Implementing-a-Health-2020-Vision-Governance-for-Health-in-the-21st-Century-Eng.pdf

⁴ Ofcom. *Television Advertising of Food and Drink Products to Children*. London: Ofcom, 2007.
http://stakeholders.ofcom.org.uk/binaries/consultations/foodads_new/statement/statement.pdf

regulating commercial messages, and the European Regional Office of WHO called on Member States to consider nutrient profiling “a valuable tool for policy development and implementation to promote healthier food supplies”.⁵ In 2009 and again in 2010, the Coronary Prevention Group supported meetings conducted by the World Health Organization (WHO) and the International Association for the Study of Obesity (IASO), which led to the WHO embarking on a programme of work with international experts and partners to provide guidance in developing nutrient profile models.⁶

Figure 1 Report of the CPG-sponsored meeting on nutritional profiling, 2010



With this growing interest in the application of nutrient profiling to influence food policies,⁷ the Coronary Prevention Group commissioned the present report to consider this issue, within the UK context. We describe the current UK food supply and the UK nutrition policy context. We also describe some recent examples of the application of nutrient profiling models for policy purposes.

The paper then goes on to scope the further opportunities where nutrient profiling could be applied to the UK food supply. In order to do this, we have compiled a wide-ranging set of policy proposals and ideas from a variety of policy documents. The potential opportunities to extend the application of nutrient profiling are then described for each of these policy proposals, indicating how nutrient profiling could potentially be applied to influence, and improve, the food supply.

⁵ WHO Regional Office for Europe. *European Food and Nutrition Action Plan 2015–2020*. Copenhagen: WHO, 2014. http://www.euro.who.int/_data/assets/pdf_file/0008/253727/64wd14e_FoodNutAP_140426.pdf

⁶ World Health Organization. *Nutrient profiling: report of a WHO/IASO technical meeting*. Geneva: WHO 2011. <http://www.who.int/nutrition/topics/profiling/en/>

⁷ T Lobstein, S Davies. Defining and labelling 'healthy' and 'unhealthy' food. *Public Health Nutr.* 2009;12(3):331-40.

3 UK NUTRITION SECURITY

Traditionally, food supplies have been evaluated in terms of *food security* and defined in terms of hunger prevention using estimates of food energy supplies or indicators such as grain supplies. For population sub-groups, such as infants and pregnant women or nursing mothers, consideration may be given to preventing nutrient deficiencies, largely through micronutrient fortification or supplementation. Only relatively recently have food supplies and food supply policies been considered in terms of supporting the protection of populations from diet-related chronic disease. This requires re-framing food security and food supply issues in terms that include ensuring food supplies are not only adequate for health maintenance, but that for all members of the population health-promoting food supplies are *available* (physically present in the area) and *accessible* (affordable, useable) and actually *consumed*.

The term *nutrition security* is used here to take account of equity and access concerns, and to consider individual needs and choices, so it includes the notion that the food available should be able to provide optimum nutritional health at each stage of the life course, and *in addition* that the selection of foods should not be undermined by lack of resources, or lack of knowledge, skill or facilities to utilise the foods, or by marketing techniques which undermine public health messages and individual health behaviour. Thus nutrition security is more than food security: it is the supply *and consumption* of the optimum nutrition for growth, health and the prevention of later NCDs. Determinants of nutrition security include the recognised determinants of food security (sustainable and adequate supplies, hygienic and consistent quality in relation particularly to food safety, widespread availability, affordable and accessible to all) but also determinants of the full nutrient quality as well as factors relating to consumer choice and consumption patterns. These include the household distribution of foods, cultural practices, education and skills, information, product labelling and persuasive marketing practices, and whether these are promoting or impeding healthy dietary behaviour and optimum nutrition for each individual.

Figure 2, adapted for the UK Cabinet Office⁸ from the World Health Organization's report *Food and health in Europe*,⁹ shows a general conceptual view of the government sectors and responsibilities which influence food and diet behaviour. Although more emphasis could be placed on some of the threats to nutrition security, such as low income, corporate pricing and marketing activities, the diagram clearly demonstrates some of the many government policy areas that influence food supplies, and it is these areas that are the primary focus of the present paper.

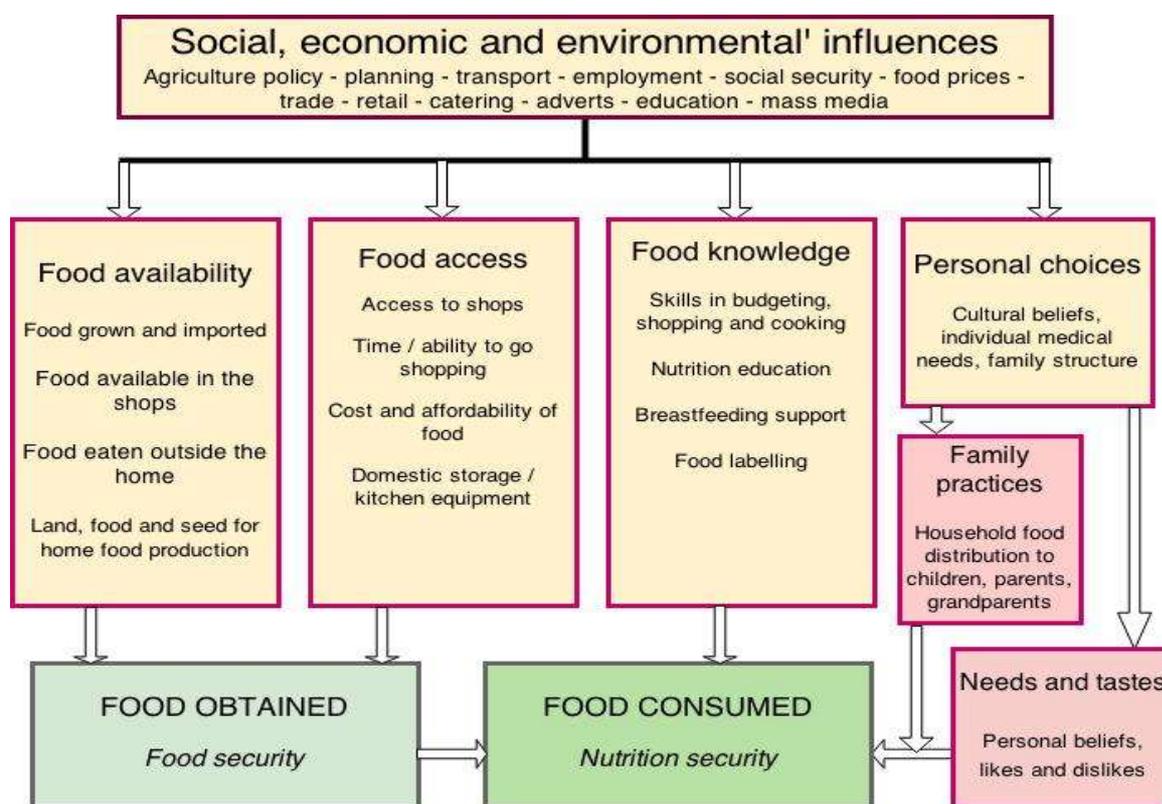
The UK food supply needs to be seen as part of a wider network of trade and investment policies, forming the last links of a supply chain that produces commodities and converts them into edible products. Agriculture policy, in particular, needs to be located within the European Common Agricultural Policy which shapes farm production and import and export prices. In 2012, just over half (53%) of the food consumed in the UK originated from the UK, based on the farm-gate value of unprocessed food,¹⁰ indicating a high level of dependence on external sources to ensure national food security.

⁸ Cabinet Office Strategy Unit, *Food: an analysis of the issues*. London: UK Government, 2008. http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/media/cabinetoffice/strategy/assets/food/food_analysis.pdf.

⁹ A Robertson et al. *Food and Health in Europe: a new basis for action*. WHO Regional Publications, European Series, No 96. Copenhagen: WHO, 2004.

¹⁰ UK Government. *Food Statistics Pocketbook*, 2013 edition. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/243770/foodpocketbook-2013report-19sep13.pdf

Figure 2 Model of nutrition security and food choice determinants



Sources: WHO⁹ and UK Cabinet Office⁸.

3.1 Current issues in food and nutrition security in the UK

Much attention has been paid in the last decade to food supply issues, especially the sustainability of supplies, the carbon footprints of food production and food transport, and the need to avoid food waste. Concerns about the potential of modern food supplies to raise the risk of chronic disease are high on the international policy agenda following the UN High Level Meeting on Non-communicable Disease, held in September 2011¹¹ and the Second International Conference on Nutrition held in November 2014. Such concerns have been further emphasised in the Global Burden of Disease study which estimated that diet-related factors (obesity, high blood pressure, high salt intake, low fruit intake, low nuts/seeds intake) account for five of the top 10 risk factors for the total disease burden in Western Europe, with two – obesity and raised blood pressure – in the top three risk factors.¹²

The benefits that can be gained from improving dietary health in Britain, in terms of reduced premature deaths and reduced ill health, were calculated in 2006 for Ofcom¹³ and are shown here in Table 1.

¹¹ See http://www.who.int/nmh/events/un_ncd_summit2011/en/ accessed 4 January 2013.

¹² S S Lim, T Vos, A D Flaxman et al (2012) A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 380: 2224-2260.

¹³ Ofcom (2006) *Annexe 7- Impact Assessment Consultation on Television Advertising of Food and Drink to Children*. (Cited in: Cabinet Office (2008) *Food: an analysis of the issues* London: The Strategy Unit. [Joint FSA/DoH analysis extrapolated for the Strategy Unit. Benefits of the 5-a-day based on 136g increment in consumption – the gap between estimated intake (Health Survey for England baseline) and target based on standard portion size.]

Table 1 Estimated health benefits from population dietary improvements

	Deaths avoided each year	Quality adjusted life years gained
Fruit & vegetable intake increased to 5 a day	42,200	411,000
Daily salt intake reduced from average 9g to 6g	20,200	170,000
Saturated fat intake reduced by 2.3% of energy	3,500	33,000
Added sugar intake reduced by 1.75% of energy	3,500	49,000
Total	69,400	663,000

In contrast, the great majority of adults in Britain are failing to meet the recommended dietary guidelines. Estimates from 1994 suggested that fewer than one in every thousand adults were meeting all five dietary targets (for fats, saturated fats, sugar, salt and fruit and vegetables)¹⁴ and by 2001 this remained below one in 125 adults.¹⁵ No analysis has been made of more recent data to indicate what proportion of the population is currently meeting all five dietary targets, but recent figures show that 70% of adults are exceeding the salt intake guidelines, 75% are not meeting the guidelines for fruit and vegetable consumption, while 80% of children are consuming more than 10% of dietary energy from added sugar (and over 97% are consuming more than 5% of dietary energy from added sugar).¹⁶

Dietary surveys have shown a socio-economic gradient in many aspects of food consumption and nutrition status and the issues have been reviewed at length.^{17,18} Low income families are less likely to meet dietary targets and more likely to have poorer nutritional status, although concerns have been expressed over the lack of information on the diets and nutritional status of the lowest income households.¹⁹ Members of lower income households are also poorly engaged in social marketing campaigns for improving diet and physical activity, such as *Change4Life*,²⁰ and in this respect social marketing approaches may exacerbate health inequity, with those in greatest need of a health intervention least likely to benefit from the campaigns.²¹ This indicates the need for alternative approaches to improving food and nutrition security that do not rely on individual responses or campaigns targeted at the most vulnerable, but employ a population-wide approach to the societal, social and other determinants of nutrition security.

3.2 Recent trends in UK food consumption

Over the last century, food producers have become increasingly remote from the final consumers of their products. Farm output increasingly supplies wholesalers, manufacturers and large retailers. ‘Consumer demand’ is primarily communicated by these intermediate purchasers of farm produce, whose own needs push farmers towards maximising yield, reducing crop and species variety and choosing varieties which provide uniformity of crop output, transportability and long shelf-life. Much of farm output is used by processors and manufacturers, who in turn have purchasers (retailers and caterers) who also call for long shelf-life products that can be transported and stored without

¹⁴ Ministry of Agriculture, Fisheries and Food *Dietary and Nutritional Survey of British Adults: Further Analysis*. London: H. M. Stationery Office, 1994.

¹⁵ T Lobstein (2008) Child obesity: what can be done and who will do it? *Proceedings of the Nutrition Society* 67, 301–306.

¹⁶ Public Health England. *NDNS results from years 1 to 4 combined of the rolling programme for 2008 and 2009 to 2011 and 2012: report*. London: UK Government 2014.

¹⁷ A Robertson et al. *Obesity and socio-economic groups in Europe: Evidence review and implications for action*. Brussels: European Commission (SANCO/2005/C4-NUTRITION-03), 2008.

http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/ev20081028_rep_en.pdf

¹⁸ T Lobstein. ‘Food’. Chapter 1 in S Thomas (ed) *Poor Choices: The limits of competitive markets in the provision of essential services to low-income consumers*, London: Public Services International Research Unit, pp23-46, 2009.

<http://www.psiru.org/reports/PoorChoices.pdf>

¹⁹ T Lobstein, Low income diet and health – next steps after the report of the Low Income Diet and Nutrition Survey (LIDNS). Paper presented to an FSA meeting on LIDNS, London, 5 November 2011.

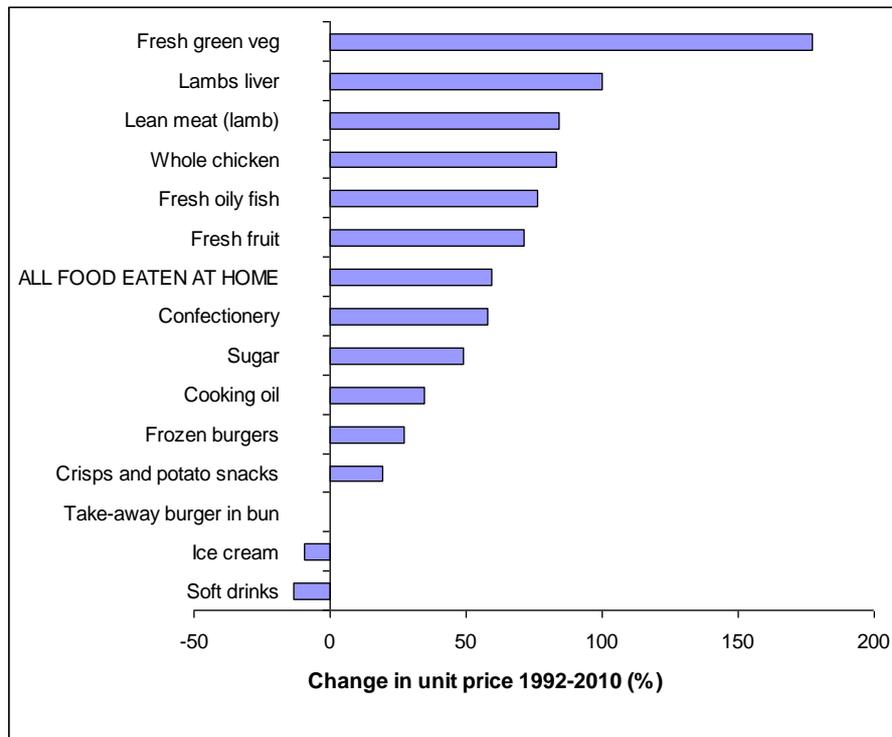
²⁰ H Croker et al. Cluster-randomised trial to evaluate the ‘Change for Life’ mass media/ social marketing campaign in the UK. *BMC Public Health*. 2012;12:404.

²¹ R Langford et al. A health equity critique of social marketing: where interventions have impact but insufficient reach. *Soc Sci Med*. 2013;83:133-41.

deterioration, and which are standardised and consistent and presented with an attractive image at low cost.

As a result of this extended business-to-business supply chain there has been considerable pressure on primary producers to focus on increasing their output of products which fit the purchasing needs of their business customers, with little regard for the nutrient content of the products. With more than half a century of investment in the development of mass-production of long shelf-life foods, retail prices of highly processed foods tend to be cheap and show reduced price increase over time compared with the prices of fresh, perishable foods. This trend is not only historic, but continues through current decades. Figure 3 shows absolute price changes for foods purchased for household consumption across the period 1992-2010.

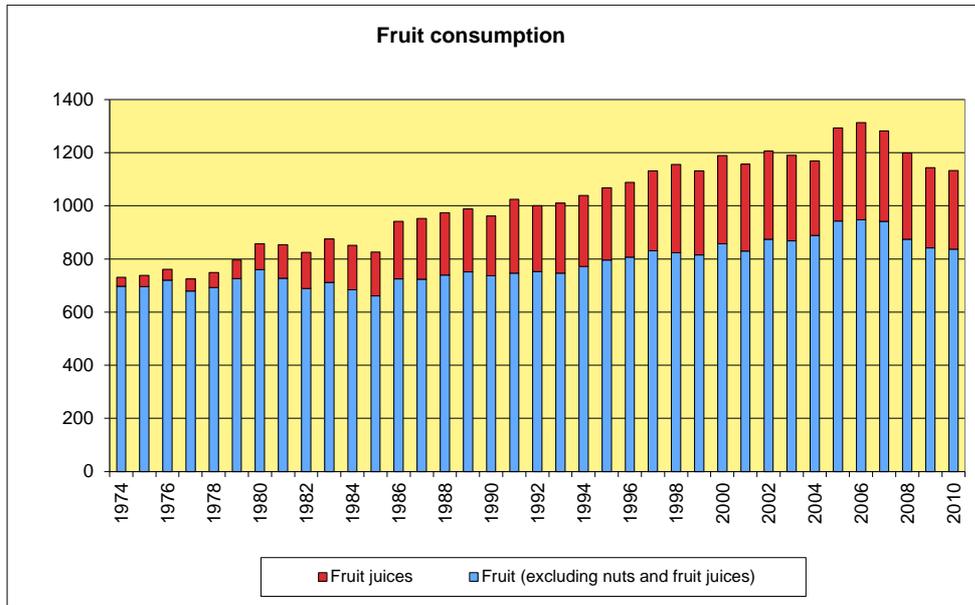
Figure 3 Changing prices of foods purchased for household consumption, UK 1992-2010



Source: DEFRA Household Food Consumption, periodical

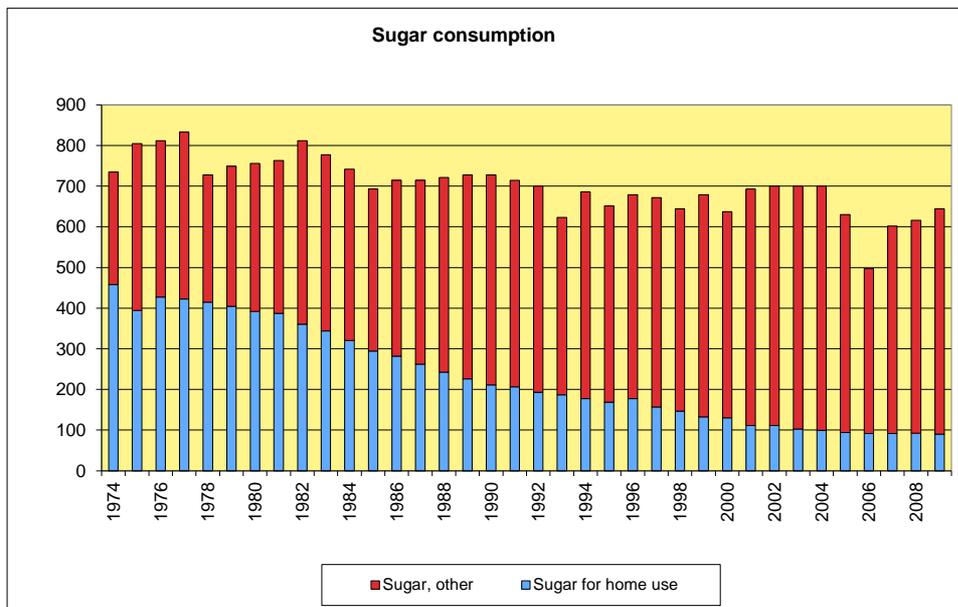
Within specific food types, the trend has been towards processed products. For example, while fruit supplies have risen significantly in the UK in the last three decades, much of this has been in the form of fruit juices, which removes much of the dietary fibre and turns intrinsic sugars into extrinsic sugars, in both cases reducing the health-promoting benefits of fruit consumption (see Figure 4). Sugar consumption has declined in the UK, but while household purchases of sugar as a food item have fallen dramatically, the supply of sugar in processed foods has maintained high consumption levels (see Figure 5). Similarly, while fats and oils bought for home use has fallen, the total supply has continued without significant change (see Figure 6).

Figure 4 UK fruit and fruit juice purchases for home consumption, 1974-2010 (grams/ml per person per week)



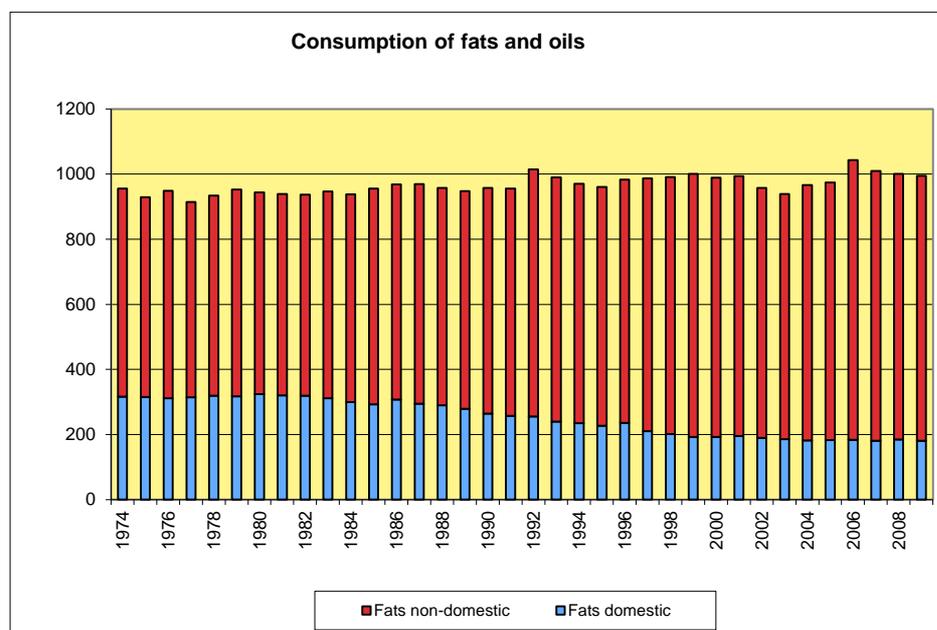
Source: DEFRA Household Food Consumption, periodical

Figure 5 UK sugar purchased for home use in primary form and in processed foods consumed at home and outside the home, 1974-2009 (grams per person per week)



Source: FAO and DEFRA Household Food Consumption, periodical

Figure 6 UK purchase of fats and oils for home use and for use in processed foods and non-domestic catering, 1974-2009 (grams/ml per person per week)



Source: FAO and DEFRA Household Food Consumption, periodical

The same patterns are found for salt (sodium): household purchases of table salt have fallen by more than 70% in recent decades, from around 30g per person per week in the late-1970s to just 8 grams per person per week in 2013, and now represents less than 15% of estimated total dietary intake of salt from all foods.²² The remainder, nearly 35g per person per week, is supplied by processed foods purchased for home consumption and foods eaten out of the home.

These trends reflect a reduction over time in the preparation of fresh food within the household and the greater use of ready-prepared foods, out-of-home catering and hot food delivery. Such processed and ready-prepared foods and foods eaten out of home are made to recipes that are not under the control of the consumer. The trends in purchasing and household eating patterns are a particular challenge to consumers who are instructed by health education programmes and urged by health professionals to cut down their consumption of sugar, fat or salt and generally be in control of the nutrients they consume. They highlight the increasing importance of manufacturers and caterers in shaping the nutritional quality of modern diets, and the responsibility to their customers that they need to bear.

3.3 Structure of UK food supply

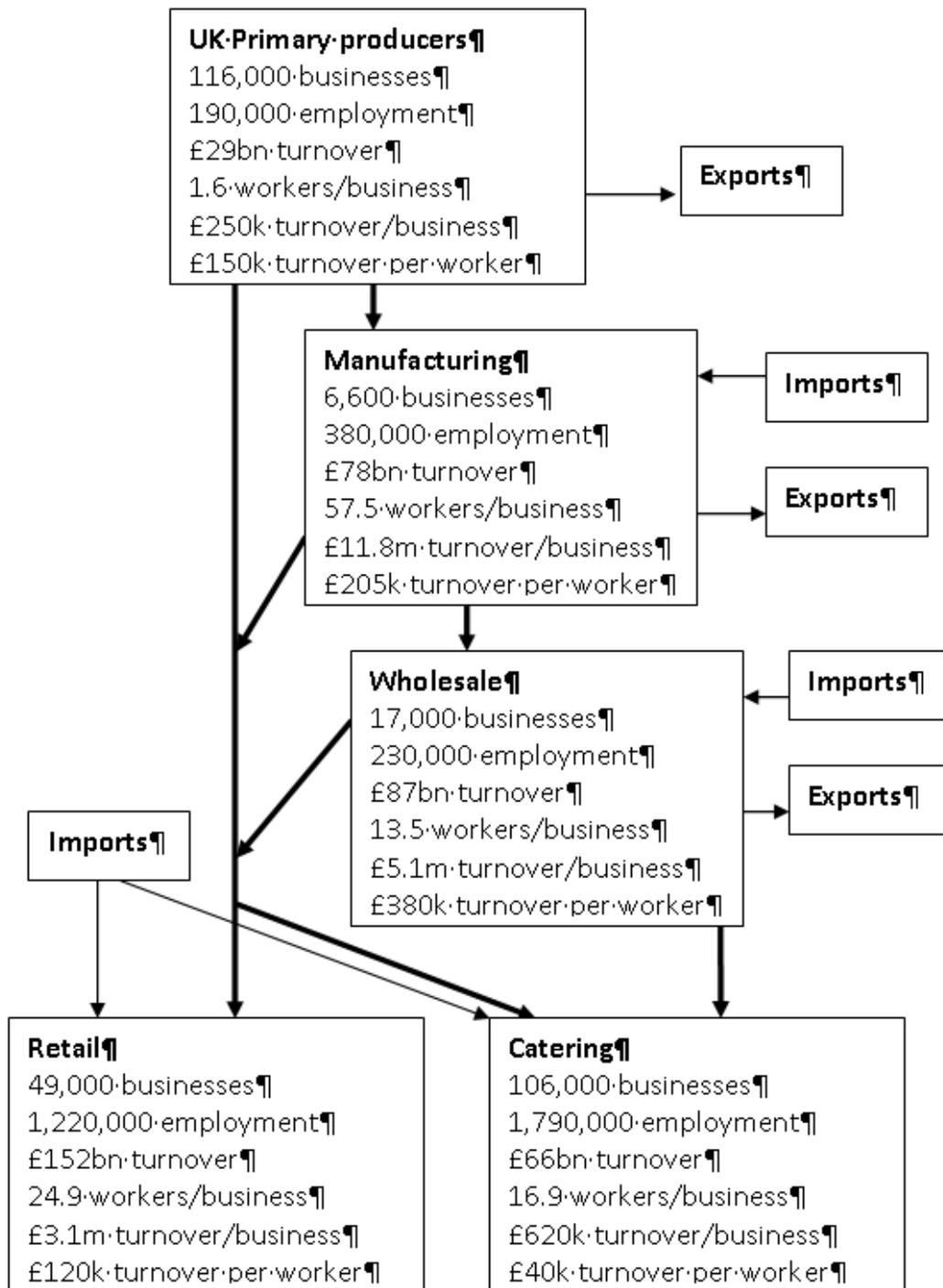
In order to consider opportunities for intervening in the food supply it is helpful to assess its size and nature.

Food manufacturing is the largest manufacturing sector in the UK. Figures for the size of the UK food supply chain indicate that the main participants (producers, wholesalers, manufacturers, retailers and caterers) together employ 3.7 million people, more than any other industry sector in the UK.²³ The food supply chain contributes an annual turnover of £412 billion to the UK economy. The largest single sector in terms of turnover is retailing, while the largest sector in terms of turnover per worker employed is the wholesaler group (see Fig 7).

²² DEFRA Family Food datasets (periodical). Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383450/UKHHcons-11dec14.ods

²³ S Jassi et al. *United Kingdom Food Supply Chain*. York: Improve Ltd, 2010

Figure 7 Structure and scale of the UK food supply in 2010



Source: Improve Ltd, 2010.²³

It should be noted that, while these figures provide averages for companies within each sector, the distribution within a sector may be far from uniform. The retail sector is extremely concentrated, with four major chains accounting for an estimated 75% of grocery sales in 2010, while the proportion of the market being serviced by small independent shops has reduced from 60% of grocery sales in 1960 to barely 5% in 2010.²⁴

²⁴ The Strategy Unit. *Food: An Analysis of the Issues*. London: Cabinet Office, 2008.

Private sector catering services supply a considerable proportion of food eaten: estimates for 2012 indicated that the number of meals served in restaurants, fast food outlets, pubs and hotels reached 4.1 billion in the UK, with a further 800 million meals eaten in staff canteens and 500 million in leisure facilities.²⁵

In addition, public sector catering services supplied comparable figures: over 1 billion meals in health services in 2012, plus 1.1 billion meals in education services, and a further 256 million meals in other public services including the police, fire services, armed forces, prisons and young offender institutions.²⁶ Public sector food is also served to many more people for whom it is not a public service; for example one million staff eat in staff restaurants in the NHS. Publicly-supported bodies also serve food; for example more than 1 million customers are served at the restaurants and cafes at the four Tate Galleries (Tate Modern, Tate Britain, St Ives, and Liverpool) each year.

The direct influence of the public sector on food supplies is far greater than its role in supporting substantial catering services. The public sector also plays a role in supporting research and development of agricultural products and technology, and research and development of food processing and production technology, food storage and food packaging. For example, between 2007 and 2013, the Department for Environment, Food and Rural Affairs funded the £3.7 billion Rural Development Programme for England, which included over €693 million on various activities to improve the competitiveness of the agriculture and forestry sectors, nearly €238 million on payments to farmers in difficult areas (other than mountain areas) and €3.4 billion on agri-environment payments to farmers for environmental stewardship between 2007 and 2013.²⁷

This public expenditure maintains a thriving industrial sector and supports the provision of safe and secure food supplies. However, there is little or no evidence that it is attentive to the long-term health implications of the nutritional quality of the food supplies it supports except in relation to school foods where there has been a major effort by non-governmental organisations (NGOs) and individuals to ensure appropriate nutrition security. With the increasing interest in promoting health and preventing chronic disease through dietary improvements, it is pertinent to ask whether the public sector spending identified here could be re-directed to ensure greater support for health-promoting diets.

3.4 UK nutrition-related policy responses

This is not the place to detail the wide range of policy responses made by successive UK governments to the rising epidemic of obesity and non-communicable disease, but several key points need to be made concerning the policy responses in the last decade.

Following lobbying and advocacy in the late 1990s and early 2000s from a range of medical bodies and NGOs, and with pressure from strongly-worded reports published by the House of Commons, the National Audit Office and the Office of Science's Foresight Project, the UK and devolved governments introduced a series of measures which have contributed to better public health nutrition, including school meals standards, school physical activity standards, restrictions on the promotion of HFSS foods to children in broadcast media, voluntary front-of-pack interpretative nutrition labelling, voluntary reductions in salt levels in selected food categories, and other measures, led in part by the nutrition section of the Food Standards Agency, established in 2000.

²⁵ Horizons. *UK foodservice industry in 2012. Updated May 2013*. London: Horizons FS Ltd, 2013. http://www.wrap.org.uk/sites/files/wrap/UK_Foodservice_Industry_in_2012.pdf

²⁶ Horizons *op cit*.

²⁷ Department for Environment, Food and Rural Affairs. *The Rural Development Programme for England 2007-2013, A Summary*. Available from: <http://archive.defra.gov.uk/rural/documents/rdpe/rdpe-sum.pdf>

3.4.1 Nutrition policies

Since 2010, the Food Standards Agency in England has lost responsibility for nutrition (it has retained it in Scotland) with nutrition policy reverting in England to the Department of Health. While responsibility for public health has been handed over to a new agency, Public Health England, and its implementation largely devolved to local health service bodies, the policy agenda for nutrition was dominated by an approach promoted by Andrew Lansley, the first Secretary of State for Health in the post-2010 coalition Government. This approach takes the form of a multi-stakeholder ‘*Public Health Responsibility Deal*’ comprising committees of business, NGO and public health representatives tasked with developing targets for voluntary action in relation to four topic areas: health at work, alcohol, physical activity and food. The food-related pledges are shown in Table 2, with the numbers of food companies adopting each pledge indicated (as of 9 February 2015).

Table 2 Food-related pledges made to fulfil the Public Health Responsibility Deal

Pledge title and adopters	Summary text of specific commitment
1. Out of Home Calorie Labelling (45 signatories)	"We will provide calorie information for food and non alcoholic drink for our customers in out of home settings from 1 September 2011."
2. Salt Reduction (78 signatories)	"We commit to the salt targets for the end of 2012 agreed by the Responsibility Deal, which collectively will deliver a further 15 per cent reduction on 2010 targets."
3. Non-use of Artificial Trans Fat (90 signatories) or Artificial Trans Fat Removal (11 signatories)	"We do not use ingredients that contain artificial trans fats" or "We are working to remove artificial trans fats from our products within the next 12 months."
4. Calorie Reduction (41 signatories)	Following a government call for the population to reduce its total calorie consumption by 5 billion calories (kcal) a day, "we will support and enable our customers to eat and drink fewer calories through actions such as product/ menu reformulation, reviewing portion sizes, education and information, and actions to shift the marketing mix towards lower calorie options. "
5. Salt Catering: Training and Kitchen Practice (15 signatories) Salt Catering: Reformulation of products as purchased by the customer (10 signatories)	" We will (reduce) the amount of salt used in our kitchens by at least 15%, within a specified 2-year period" "We will support and enable customers to reduce their dietary salt intakes by providing the salt content for each product on our website and menu information guides made available on request in our catering establishments (by the end of 2014)."
Salt Catering: Procurement (9 signatories)	"We will meet the 2012 salt targets for at least 50% of the products we procure (by volume of products) within one year of sign up."
6. Fruit and vegetables (41 signatories)	"We will do more to create a positive environment that supports and enables people to increase their consumption of fruit and vegetables."
7 Front of Pack Nutrition Labelling (23 signatories)	"We will adopt and implement the UK Governments' 2013 recommended Front of Pack Nutrition Labelling Scheme"
Front of Pack Nutrition Labelling (17 signatories)	"We will promote, and explain to consumers how to use the UK Governments' 2013 recommended Front of Pack Nutrition Labelling Scheme."
8. Saturated Fat Reduction (18 signatories)	"We will support and enable people to consume less saturated fat through actions such as product/menu reformulation, reviewing portion sizes, education and information and incentivising consumers to choose healthier options."
9. Salt Reduction 2017 (39 signatories)	"We commit to working towards achieving the salt targets by December 2017."
10. Out of Home maximum per serving salt targets (7 signatories)	"We will support and enable customers to reduce their dietary salt intakes by committing to meet all relevant maximum per serving salt targets within 2 years of signing up to this pledge."

Source: Department of Health ²⁸

The government considered the voluntary approach adopted by the Responsibility Deal would be faster and cheaper than regulation, and some progress has been made, for instance with the introduction of

²⁸ Department of Health *Public Health Responsibility Deal*. <https://responsibilitydeal.dh.gov.uk/pledges/>.

smaller portion size options for soft drinks and confectionery. However, experience with public-private partnerships suggest that such schemes need strong monitoring and evaluation,²⁹ with clearly agreed definitions and areas of action, independent standards-setting with sanctions or targets.³⁰ Civil society organisations have been cautious to offer support to the Responsibility Deal, especially around proposals regarding alcohol consumption, with most preferring to call for regulatory measures.^{31 32}

3.4.2 Policies for government procurement

In July 2014 the Department for the Environment, Food and Rural Affairs published *A Plan for Public Procurement* which outlined the priorities for using the public sector foodservices purchasing as a lever for policy development.³³ This was a significant opportunity for setting nutritional standards which would have an impact across the market: with public foodservices worth some £2.4bn annually any significant increase in the pattern of purchasing of a specified product would have direct effects on raising production quantities and reducing unit prices.

The document identified four goals for procurement policy (page 7):

- *Supporting farmers and food producers and rightly rewarding them for operating to high animal welfare and production standards;*
- *Building training opportunities into contracts, to ensure a well-skilled food and farming sector for the future;*
- *Tackling health issues by enabling people to eat well across the public sector, including in our hospitals, and contributing to wider societal wellbeing;*
- *Helping our school children to value their food by knowing where their food comes from, and how to cook healthy meals.*

However, no further details are given on ‘tackling health issues’ and a search for the terms ‘diet’, ‘sugar’, ‘fat’ and ‘salt’ showed that these phrases were not mentioned. The report notes the need to introduce criteria including nutrition and sustainability into their purchasing standards, and describes a ‘balanced scorecard’ process whereby cost can be balanced against “*more complex criteria, such as health and wellbeing, resource efficiency and quality of service. By using a balanced scorecard, priority themes such as farm assurance, food waste management, and engagement with SMEs can be built into procurement decisions, alongside well-established criteria, such as animal welfare, nutrition, and energy management.*” (page 12). It is to be hoped that this step towards recognising the opportunities for introducing nutrition criteria into government purchasing will mark a genuine policy change and a good example of the ‘health in all policies’ approach to tackling public health nutrition.

3.4.3 Policies supporting market development

While government policies in respect of nutrition have been relatively mild, involving no substantial threats nor any financial incentives, their policies in respect of research, economic development and rural employment are more interventionist. Treasury payments for government-sponsored activities to

²⁹ M Petticrew et al. The Public Health Responsibility Deal: how should such a complex public health policy be evaluated? *J Public Health (Oxf)* 2013; 35:495-501.

³⁰ C Panjwani, M Caraher. The Public Health Responsibility Deal: Brokering a deal for public health, but on whose terms? *Health Policy* Nov 17, 2013. [Epub ahead of print].

³¹ N Trigg N. Health groups reject 'responsibility deal' on alcohol. *BBC News Online* 14/3/2011. See <http://www.bbc.co.uk/news/health-12728629> (accessed 7 January 2014)

³² M Limb. Public health body quits responsibility deal over government's failure to act on tobacco and alcohol. *BMJ* 2013; 347:f4590.

³³ DEFRA *A Plan for Public Procurement*. London, 2014

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332756/food-plan-july-2014.pdf

aid the food industry amount to several million pounds annually, with the Department of Business, Innovation and Skills' Technology Strategy Board alone offering £14m to the food sector in 2013-14.³⁴

The UK's food-based dietary guidelines encourage reduced consumption of foods such as biscuits, confectionery and ice cream, yet government research and industry support has encouraged greater production of just these foods. Table 3 shows some examples, from the databases of the Rural Development Programme for England (RDPE), the Technology Strategy Board (TSB) and the BBSRC. Larger projects include ones which are co-funded with multinational companies such as Nestlé (Nestec), Mondelez (formerly Kraft-Cadbury) and PepsiCo.

Table 3 Examples of government-supported development grants

Project	From	Date	Amount £
Conversion of a barn into an ice cream shop	RDPE (31/5/11)	2011	31,783
Expansion of a biscuit production unit	RDPE (31/12/10)	2010	12,500
Conversion of a barn into a chocolate production unit	RDPE (30/09/10)	2010	11,400
Conversion of a farm building for ice cream production	RDPE (31/1/09)	2009	143,000
Co-project with Mondelez for confectionery production	TSB 101542	2013-15	637,812
Co-project with Mondelez for reduced input instant coffee	TSB 101390	2013-16	426,660
Development of functional ingredients for snacks	TSB 750691	2013-14	5,000
Improvement of crisps frying stability	TSB 508816	2013-15	84,128
Market research for new biscuits	TSB 750819	2013-14	5,000
Co-project with Nestec for chocolate cooling technology	TSB 101394	2013-15	487,268
3-D chocolate printing for personalised gifts	TSB 131123	2013	24,750
Development of new food colouring additives	TSB 131301	2013	24,155
Co-project with PepsiCo for dehydrated snack production	TSB 101384	2013-16	356,076
Development of synthesised fruit flavouring additives	BBSRC L024381	2014-15	102,772
Improving the sensory properties of confectionery wafers	BBSRC K501517	2012-16	100,173
Re-engineering confectionery wafer manufacture	BBSRC K501530	2012-16	92,173
Freshness control of wafer based confectionery	BBSRC M503058	2014-18	94,126

The government's rural development programme for 2014-2020 is described in a 743-page document that does not mention does not mention human nutrition, and does not mention human health except in the context of the mental health advantages of access to green spaces.³⁵

3.4.4 Policies on pricing and taxation

Proposals for adding a tax to foods or beverages which public health nutritionists recommend should be eaten less frequently, such as soft drinks and confectionery, have been made in policy proposals both in the research literature as likely to be effective in improving population health^{36 37 38} and proposed as potential policy measures by the OECD³⁹ and by the World Health Organization in its *European Food*

³⁴ Technology Strategy Board *Delivery Plan Financial Year 2013*-London2013. See: <https://www.innovateuk.org/documents/1524978/2138994/Delivery+Plan+-+Financial+year+2013-14/c435471d-222c-4e63-8269-d0f4b2b61c2f>

³⁵ DEFRA. *United Kingdom - Rural Development Programme (Regional) – England*. London, 2015. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/404607/rdpe-england-2014-2020.pdf

³⁶ LM Powell et al. Assessing the potential effectiveness of food and beverage taxes and subsidies for improving public health: a systematic review of prices, demand and body weight outcomes. *Obes Rev*. 2013;14(2):110-28.

³⁷ G Sacks et al. 'Traffic-light' nutrition labelling and 'junk-food' tax: a modelled comparison of cost-effectiveness for obesity prevention. *Int J Obes (Lond)*. 2011;35(7):1001-9.

³⁸ H Eyles et al. Food pricing strategies, population diets, and non-communicable disease: a systematic review of simulation studies. *PLoS Med*. 2012;9(12):e1001353.

³⁹ OECD. *Obesity Update 2012*. <http://www.oecd.org/health/49716427.pdf>

and Nutrition Action Plan 2015-2020,⁴⁰ agreed by all regional Member States including the UK in September 2014. Various countries including Finland, France and Hungary within the EU have introduced taxes on such foods, although the justification has not consistently been one of health promotion.⁴¹ Denmark introduced a tax on saturated fats which was subsequently removed, but according to a review of the impact of the saturated fat tax for the short period it was operative, the tax led to measurable improvements in the health profile of foods purchased.⁴²

While the UK does not have health-related taxes on foods, it does have a sales tax – VAT – which is applied to some foods and not to others. The original intention was to impose a tax on ‘luxury items’ while leaving basic food products exempt or zero-rated. This raises the possibility of imposing taxes based on their nutritional profile or their contribution to the recommended diets proposed under the government’s food-based dietary guidelines. Certainly, some anomalies are apparent in the current VAT rating system, with certain foods which might be deemed unhealthy being zero-rated and others which might be encouraged or neutral from a public health view are taxed at full rate, as indicated in Table 4.

Table 4 UK sales tax (VAT) ratings for selected food items

Food item	VAT category
Table salt	Zero
Sugar	Zero
Cake mixes	Zero
Sponge cake	Zero
Fruit cake	Zero
Marshmallow tea-cake	Zero
Soup mixes	Zero
Drinking chocolate	Zero
Dried fruit	20% tax
Mineral water	20% tax
Frozen yoghurt	20% tax
Vitamins, minerals, fish oil supplements	20% tax

Unsalted nuts	Zero
Unsalted roast nuts	20% tax
Flapjack	Zero
Cereal bar	20% tax
Jaffa cake	Zero
Partly-coated chocolate biscuit	20% tax
Chocolate chip cookies	Zero
Chocolate digestives	20% tax
Artificial flavourings and sweeteners	Zero
Artificial colourants	20% tax
Baked potato on Eurostar to Lille	Zero
Baked potato on train to Liverpool	20% tax

Sources: HMRC⁴³

3.5 Beyond 2015

While it is unlikely that further progress will be made to strengthen government initiatives in this area before the 2015 general election, there is value in preparing for stronger policy initiatives. The UK

⁴⁰ WHO Regional Office for Europe. *European Food and Nutrition Action Plan 2015-2020*. Copenhagen, 2014.

⁴¹ UK National Heart Forum (now UK Health Forum) *What is the role of health-related food duties?* London: 2012.

⁴² S Vallgård et al. The Danish tax on saturated fat: why it did not survive. *Eur J Clin Nutr.* 2015;69(2):223-6.

⁴³ HMRC VAT Notice 709/1: *catering and take-away food* (published 7 Oct 2013), and VAT Notice 710/14: *food* (published 10 February 2014).

government is a signatory to the European health policy framework Health 2020⁴⁴ which takes as one of its strategic objectives the strengthening of health governance through greater responsibility and accountability by all stakeholders, and has a priority of public health action ‘*underpinned by actions on equity, social determinants of health, empowerment and supportive environments*’.

More specifically, the UK is also a signatory to the World Health Organization’s Vienna Declaration of July 2013⁴⁵ which urged Member States to consider ‘*the use of economic tools and incentives to promote healthy eating*’ and to take ‘*decisive action to reduce food marketing pressure to children with regard to foods high in energy, saturated fats, trans fatty acids, free sugars or salt and implement common approaches to promote product reformulation, consumer friendly labelling and nutrient profiling tools which facilitate a healthy choice*’.

Nutrient profiling has been accepted as a policy tool by the European Commission in their regulation of health and nutrition claims. Early proposals for a scheme to define those foods which would be permitted to carry such claims could not be agreed,⁴⁶ and further proposals are awaited.

Lastly, nutrient profiling has also been accepted by the food industry as a tool for controlling marketing messages to children. Following many years of food industry representatives asserting that there was ‘*no such thing as an unhealthy food, only an unhealthy diet*’ a number of companies signed ‘The EU Pledge’ which offered voluntary limits to advertising to children of foods specified by each company or, more recently, all foods specified in a unified set of nutrition criteria.⁴⁷

⁴⁴ WHO Regional Office for Europe. *Health 2020 A European policy framework and strategy for the 21st century*. Copenhagen 2013. http://www.euro.who.int/_data/assets/pdf_file/0011/199532/Health2020-Long.pdf?ua=1

⁴⁵ WHO Regional Office for Europe. *Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020* Copenhagen, 2013. <http://www.euro.who.int/en/media-centre/events/events/2013/07/vienna-conference-on-nutrition-and-noncommunicable-diseases>

⁴⁶ E Watson. EC dithers over nutrient profiles as timetable slips two years. *Food manufacturer* 2011. <http://www.foodmanufacture.co.uk/Regulation/EC-dithers-over-nutrient-profiles-as-timetable-slips-two-years>

⁴⁷ EU Pledge *Nutrition Criteria White Paper* Brussels 2012. http://www.eu-pledge.eu/sites/eu-pledge.eu/files/releases/EU_Pledge_Nutrition_White_Paper_Nov_2012.pdf

4 DEFINING 'GOOD' AND 'BAD' FOOD

Government policy to combat diet-related chronic disease during recent decades has been built on the use of food-based dietary guidelines to illustrate general categories of foods of which consumers should 'eat less', such as sugary and fatty foods, or 'eat more', such as fruit and vegetables, fish and wholegrain cereal foods.

Based on such broad guidelines, the advice has not related to individual foods or the choices that consumers face on a daily basis, particularly given an increasing reliance on processed foods which combine ingredients from different food categories. When questioned, consumers will usually claim to understand what is or is not healthy, but they acknowledge confusion about how to put generalised dietary advice into practice, and admit they have difficulties in assessing the actual levels of fats, salt, sugar etc. in the portions they eat. The focus in recent years has therefore shifted towards providing consumers with practical tools that make healthy dietary choices easier. Among these tools is a clearer definition of the nutritional quality – the nutrient profile – of a food product both in absolute terms and in relation to other food products.

Attempts to provide consumers with summary information on the levels of nutrients in individual foods are not new. Proposals were developed and trialled in the 1980s: examples include the Coronary Prevention Group's labelling schemes,^{48 49} which banded the nutrient levels in packaged foods, and the London Food Commission's rating system⁵⁰ for menu items in catering outlets.

This pioneering work has helped to change the language used in the promotion of food-based dietary guidance. In the 1970s through to the early 2000s the food industry was keen to promote phrases such as 'there are no such thing as 'good' and 'bad' foods, only good and bad diets' and 'all foods can be eaten in moderation in a balanced diet'. Indeed the term 'balanced diet' itself has connotations of giving equal value to healthier and less healthy food products, as if a healthy diet might need to be 'balanced' by the consumption of less healthy foods.

Such language has largely been replaced by more sophisticated terms. The industry itself, in its promotion of functional food products and of individual food items labelled with logos declaring the products to be 'healthy' or 'good for you' has accepted that specific products can be categorised on a dimension relating to health benefit, although simultaneously arguing strongly against the use of indicators that could imply that a product may be less healthy.

The importance of distinguishing between different foods is now receiving much greater attention in the context of government strategies to tackle obesity and diet-related disease, and as a result increased effort has been put into the development of nutrient profiling schemes for a variety of purposes.

A schematic approach to the application of nutrient profiling is shown in Figure 8 overleaf, in which the model of nutrition security and food choice determinants (shown in Figure 2) is expanded and developed to show the opportunities for a nutrient profiling approach.

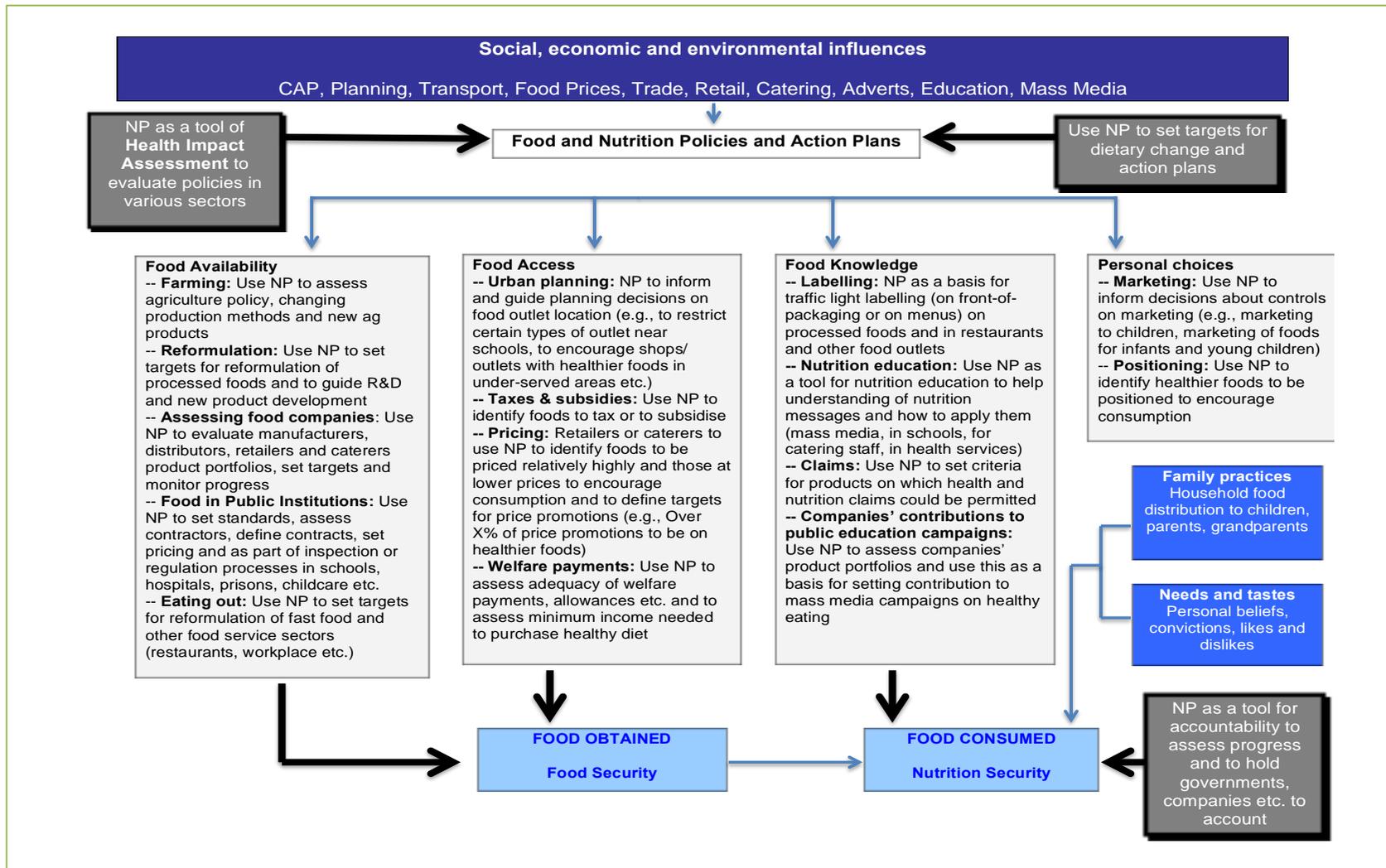
⁴⁸ Coronary Prevention Group. *Nutritional Labelling of Foods: A Rational Approach to Banding*. London: CPG, 1988.

⁴⁹ A Black, M Rayner. *Just Read the Label: Understanding Nutrition Information in Numeric, Verbal and Graphical Formats*. London: The Coronary Prevention Group and HMSO, 1992.

⁵⁰ I Cole-Hamilton. *Star Rated Menus*. London: London Food Commission, 1986.

Figure 8 Nutrient profiling as a tool to improve nutrition security: opportunities to use NP in influencing food choice determinants

The nutrient profiling opportunities are described in the light and dark grey boxes, with the opportunities for influence shown with the bold, black arrows. The information is necessarily condensed to enable mapping in this way. Annex 1 describes in more detail examples how nutrient profiling could be used to improve nutrition security.



4.1 Nutrient profiling to fulfil specific tasks

Much of the recent work to develop nutrient profiling has been nurtured by the UK Food Standards Agency, established in 2000. Recognising that the nutritional content of modern food products, especially those pre-packaged and containing multiple ingredients, is hard to identify, and also recognising that the regular consumption of foods rich in fats, sugars and salt would make it hard for an individual to meet healthy eating guidelines, the Food Standard Agency pursued a research and development programme to introduce front-of-pack indicators on labels to assist consumers. It subsequently extended this programme to undertake the development of a scheme to categorise foods products as suitable or unsuitable for advertising on TV programmes watched by children.

Nutrient profiling schemes need to be constructed in order to suit the specific objectives of their use. While a general objective may be to increase the proportion of the population adhering to national food-based dietary guidelines, the use of nutrient profiling to achieve this objective can vary considerably: already accepted objectives include the restriction of television marketing for certain foods, the labelling of foods for consumer guidance, and the restriction on the types of food eligible to bear a health claim.

Forms of food categorisation are well accepted in food regulations. The EU regulations⁵¹ on health and nutrition claims give threshold values for making ‘*high*’ and ‘*low*’ claims for nutrients in food products, per unit of food, and include specific requirements for presenting information on which the claim is made. A similar approach is used to define the meaning of ‘*higher*’ or ‘*lower*’ level of a nutrient, which are stated relative to a standard quantity in similar foods, rather than an absolute amount: for example, a ‘*reduced fat*’ spread may have significantly less fat content than butter or margarine yet still remain a ‘*high fat*’ product. The procedures for these comparisons have been largely accepted, and the EU regulation on health and nutrition claims specifies a set of criteria for allowing enhanced and reduced claims, and sets limits on the use of comparative claims.

An extension of these principles is to combine several different nutrients into a single score which can be used to show that a product is nutritionally better than another, similar one. For example, a manufacturer or retailer may promote a ‘*healthy eating*’ range, or a government or public health body may endorse a labelling scheme to identify ‘*better for you*’ products. Several schemes are already well-established in the marketplace, of which perhaps the best known in Europe is the Swedish Keyhole labelling scheme.⁵²

Several of the larger food manufacturers, working together with the Confederation of European Food and Drink Industries, have developed and promoted a front-of-pack labelling guidance for consumers based on the percentage of a Guideline Daily Amount (GDA) found in a stated portion of a product. An alternative ‘*traffic light*’ scheme has been developed by the Food Standards Agency⁵³ and used by a number of manufacturers. Most recently in the UK, the Department of Health has backed a hybrid scheme in which the FSA traffic light criteria are used to colour-code the percentages provided in the GDA-based scheme. Retailers and manufacturers are not required to provide front-of-pack nutrition labelling, but those who do must now use this format.⁵⁴

⁵¹ European Commission. Regulation (EC) No 1924/ 2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods. *Official Journal of the European Union*, L 12/3, 18.1.2007.

⁵² Livsmedelsverket (National Food Administration) (not dated) *The Keyhole symbol*. See <http://www.slv.se/en-gb/Group1/Food-labelling/Keyhole-symbol/> accessed 4 January 2013.

⁵³ Food Standards Agency. Board Agrees Principles for Front of Pack Labelling. Press Release 9 March 2006. London: Food Standards Agency. See:

<http://www.food.gov.uk/news/newsarchive/2006/mar/signpostnews/march> accessed 4 January 2013.

⁵⁴ <https://www.gov.uk/government/news/final-design-of-consistent-nutritional-labelling-system-given-green-light>

As a method of translating relatively complex information into very simple messages or signals, this type of nutrient profiling lends itself to new technological solutions. Mobile phone apps, such as FoodSwitch in Australia, can help consumers avoid unhealthy foods and choose healthy foods: users scan the barcode on food packaging to obtain traffic light ratings along with suggestions of similar, but healthier, foods. A similar app has now been developed for the UK by Consensus Action on Salt and Health.⁵⁵

Figure 9 Use of nutrient profiling for product comparison on a smartphone



Source: CASH 2015⁵⁵

While both the traffic light and the GDA schemes show multiple signals (at least four, one for each of the key nutrients), a different approach, based on a simple threshold, is needed when regulating a product's promotion on television advertising. Several approaches have emerged which aim to give a single score to indicate how healthy a particular product is. The food manufacturer Kraft, for example, launched a '*Sensible Solutions*' scheme and Unilever a '*Choices*' scheme, and other single-score schemes have been proposed, such as the Belgian supermarket company Delhaize Guiding Stars rating scheme, the Australian-developed Nutritious Food Index, the US-based Naturally Nutrient Rich score, the Australian Heart Foundation's Tick scheme, the American Heart Association's heart-check mark and the Netherlands tripartite model defining '*preferable*', '*middle course*' and '*exceptional*' foods within food groups.⁵⁶

Perhaps the most advanced work to date has been undertaken by Rayner and colleagues in Oxford to underpin the development of restrictions on advertising to children on broadcast media (introduced in 2007). This nutrient profiling model went through several stages of detailed development in 2004 and 2005 under the auspices of the UK Food Standards Agency (FSA), and was adopted by the UK's broadcasting regulator, Ofcom, at the end of 2005 and incorporated into a regulation which prohibits advertising of products high in fat, sugar and salt during programmes

⁵⁵ Consensus Action on Salt and Health, 2015. See <http://www.actiononsalt.org.uk/foodswitch/>.

⁵⁶ T Lobstein, S Davies. Defining and labelling 'healthy' and 'unhealthy' food. *Public Health Nutrition* 2008; 12(3), 331–340.

for which children form a large proportion of the audience.⁵⁷ It has subsequently been adopted (in an adapted form) for restricting broadcast marketing to children in Ireland.

Although developed for restrictions on marketing through broadcast media, the model also has the potential to be used as the basis for developing more responsible non-broadcast advertising and promotion – for example for online marketing, product placements in films, or for sponsorship promotions. Furthermore, the model has been adapted for use in Australia as a means of defining which foods can carry health claims, with legislation coming into effect in 2013 which must be complied with by 2016.⁵⁸ Under this scheme, health claims will only be permitted on foods that meet the nutrient profiling scoring criterion, and food businesses will be required to ensure a food meets the criteria in order to make a health claim. An online calculator is available to calculate a food's nutrient profiling score.⁵⁹

4.2 Extending the application of nutrient profiling

As noted above, food companies are using nutrient profiling models (mainly the FSA/Ofcom model described above) to evaluate and set targets for their overall product portfolios – thus setting the direction for their product review/reformulation programmes, their new product development and even corporate acquisitions.

Nutrient profiling has also been adapted as a tool for nutrition education. A study in the US tested a nutrition education programme incorporating one nutrient profiling system (the Nutrition Rich Food Index) as a practical tool to help people choose and plan healthier meals.⁶⁰

The development of nutrient profiling schemes is clearly of benefit in a wide range of applications, both commercial and health-related. Front-of-pack labelling has been discussed, and the use of nutrient profiling to support the European health claims regulations is under consideration by the European Commission. Similar measures can be suggested for catering outlets, where a profiling scheme such as traffic light signalling could help customers select healthier items from menus in advance of ordering their food.

Although some may argue that not all consumers will pay attention to front-of-pack or on-menu nutrition guidance, the requirement to display such information also acts as an incentive for manufacturers and caterers to consider reformulation to improve the nutritional profile of their products. Evidence from the US suggests that legislation requiring calorie information on menus has acted as an incentive for fast food restaurants to increase the availability of healthy options.⁶¹ Improving the nutritional profiles of manufactured foods and fast foods is a goal of many national food policies, and the strategy is less likely to increase health inequalities than relying on consumer choice alone.

The use of nutrient profiling can be extended to contractual relationships: for example the quality criteria for products supplied for school meal services and institutional catering in the workplace, health sector, armed service, prisons and elderly care could include nutritional profiling

⁵⁷ Ofcom. *Television Advertising of Food and Drink Products to Children*. London: Ofcom, 2007. See http://stakeholders.ofcom.org.uk/consultations/foodads_new/statement/ accessed 4 March 2015.

⁵⁸ Food Standards Australia and New Zealand. *Nutrition, health and related claims* Canberra, 2013. See www.foodstandards.gov.au/industry/labelling/Pages/Nutrition-health-and-related-claims.aspx

⁵⁹ See www.foodstandards.gov.au/industry/labelling/pages/nutrientprofilingcalculator/Default.aspx

⁶⁰ K Glanz et al. Effect of a Nutrient Rich Foods Consumer Education Program: Results from the Nutrition Advice Study. *J Acad Nutr Diet*. 2012;112:56-63

⁶¹ A Namba et al. Exploratory Analysis of Fast-Food Chain Restaurant Menus Before and After Implementation of Local Calorie-Labeling Policies, 2005-2011. *Prev Chronic Dis* 2013; 10:120224. Available from: http://www.cdc.gov/pcd/issues/2013/12_0224.htm Accessed 28 August 2013.

standards, which in turn could be used for contract compliance and for health impact assessments of meal service policies.

Fiscal policies designed to benefit public health may, if they are considered appropriate, also benefit from using nutrient profiling as an assessment tool. One criticism made of the suggestion to impose a tax on foods such as soft drinks and snack foods is the difficulty of administering the tax because of the problem of defining what constitutes a soft drink, a snack food, etc. Nutrient profiling provides a method for categorising foods for taxation or subsidy, and can help model the effects of a tax and subsidy regime on different sectors of the population. Again, manufacturers may be encouraged by such schemes to reformulate their products in order to take advantage of a tax and subsidy regime.

5 SYSTEMATIC ANALYSIS OF THE OPPORTUNITIES FOR USING NUTRIENT PROFILING IN UK FOOD AND NUTRITION POLICIES

This discussion brings us to the core of this document: the systematic consideration of opportunities for using NP in supporting policies for improving nutrition security, through policies enacted by government, local and community bodies, and private sector bodies, in the UK context. In order to approach this area more systematically, we have used a number of relevant policy documents to compile a more comprehensive set of policy opportunities relevant to the UK. We have compiled relevant policy ideas and proposals (presented in detail in Annex 1), which have been extracted from documents listed in the Box below.

Box: Sources of policies and proposals to improve population nutrition

General/Global

- *The Lancet Non-Communicable Diseases Series 2013*⁶²
- *WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*⁶³
- *The Lancet Obesity Series 2011*⁶⁴
- *2008 – 2013 Action Plan for the Global Strategy for the Prevention and Control of NCDs*⁶⁵
- *The Lancet Obesity Series 2015*⁶⁶

Europe

- *European Food and Nutrition Action Plan 2015-2020*, WHO, 2014.⁶⁷
- *Health 2020 – a European policy framework supporting action across government and society for health and well-being*, WHO 2012⁶⁸
- *WHO Action Plan for Implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012-2016*⁶⁹
- *Diet, Physical Activity and Cardiovascular Disease Prevention in Europe*, EHN, 2011⁷⁰
- *WHO European Charter on Counteracting Obesity*, 2006⁷¹
- *First Action Plan for Food and Nutrition Policy for WHO European Region 2000 – 2005*⁷²
- *WHO European Action Plan for Food and Nutrition Policy 2007 – 2012*⁷³

⁶² R Moodie et al. Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *The Lancet Non-Communicable Diseases Series* 2013.

⁶³ World Health Organization. *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*. Geneva: WHO, 2012.

⁶⁴ S Gortmaker et al. Changing the future of obesity: science, policy and action. *Lancet* 2011; 378:838-47.

⁶⁵ World Health Organization. *2008 – 2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*. Geneva WHO, 2008.

⁶⁶ Obesity 2015. *The Lancet Obesity Series 2015*. <http://www.thelancet.com/series/obesity-2015>

⁶⁷ World Health Organization Regional Office for Europe. *European Food and Nutrition Action Plan 2015-2020*. Copenhagen: WHO, 2014. Available from:

http://www.euro.who.int/__data/assets/pdf_file/0008/253727/64wd14e_FoodNutAP_140426.pdf

⁶⁸ World Health Organization. *Health 2020: a European policy framework supporting action across government and society for health and well-being*. Geneva: WHO 2012.

⁶⁹ World Health Organization *Action Plan for implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012 – 2016*. Geneva: WHO 2012.

⁷⁰ European Heart Network *Diet, Physical Activity and Cardiovascular Disease Prevention in Europe*, Brussels: EHN, 2011. Available from: <http://www.ehnheart.org/publications/publications/publication/521-diet-physical-activity-and-cardiovascular-disease-prevention.html>

⁷¹ World Health Organization. *European Ministerial Conference on Counteracting Obesity*. WHO Regional Office for Europe, 2006 (EUR/06/5062700/8). Available from: www.euro.who.int/document/e89567.pdf

⁷² World Health Organization *The First Action Plan for Food and Nutrition Policy for the WHO European Region 2000 -2005*. Copenhagen: WHO, 2001. Available from: www.euro.who.int/document/e72199.pdf

⁷³ World Health Organization *WHO European Action Plan for Food and Nutrition Policy 2007 – 2012*. Copenhagen: WHO, 2008. Available from: www.euro.who.int/document/e91153.pdf

- *Food and health in Europe: a new basis for action*, WHO Europe, 2004⁷⁴

UK

- *Food Matters: Towards a Strategy for the 21st Century*⁷⁵
- *Foresight Tackling Obesities: Future Choices – Project Report*, 2007⁷⁶

England

- *Healthy Lives, Healthy People: our strategy for public health in England*. Dept Health, 2010⁷⁷
- *Choosing Health*, 2004⁷⁸;

Northern Ireland

- *Eating and Health – A food and nutrition strategy for Northern Ireland*, 1996⁷⁹
- *Fit Futures: Focus on Food, Activity and Young People*⁸⁰

Scotland

- *Recipe for Success – Scotland's Food and Drink Policy*, 2009⁸¹
- *Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity 2008-2011*⁸²
- *Scottish Diet Action Plan*, 1996⁸³

Wales

- *Welsh Public Health Green Paper consultation*, 2013⁸⁴
- *Food for Wales, Food from Wales 2010-2020*⁸⁵
- *Food and Well Being: Reducing inequalities through a nutrition strategy for Wales*⁸⁶

The various policy propositions are organised in the table in Annex 1 according to the nutrition and food security determinants shown in Figure 2 above. Using this framework, we then reviewed whether and how nutrient profiling could potentially play a role in the implementation of these

⁷⁴ A Robertson et al. *Food and health in Europe: a new basis for action*. WHO Regional Publications, European Series, No 96. WHO, 2004.

⁷⁵ UK Cabinet Office. *Food Matters: Towards a Strategy for the 21st Century*. The Strategy Unit. Cabinet Office, 2008.

⁷⁶ UK Government. *Foresight Tackling Obesities: Future Choices – Project Report*. 2nd Edition. Government Office for Science, 2007. Available from: www.bis.gov.uk/assets/foresight/docs/obesity/17.pdf

⁷⁷ UK Government *Healthy Lives, Healthy People: Our strategy for public health in England*. Department of Health, 2010. Available from:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_121941

⁷⁸ UK Government *Choosing Health: Making Healthier Choices Easier*. Department of Health, 2004.

http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4094550

⁷⁹ Health Promotion Agency. *Eating and Health – A food and nutrition strategy for Northern Ireland*, 1996. Available from: <http://www.healthpromotionagency.org.uk/Resources/nutrition/eatingandhealth.htm>

⁸⁰ UK Government *Fit Futures: Focus on Food, Activity and Young People* (Report to the Ministerial Group on Public Health), Department of Health, Social Services and Public Safety for Northern Ireland, 2005.

⁸¹ Scottish Government. *Recipe for Success -- Scotland's National Food and Drink Policy*. The Scottish Government, 2009. Available from <http://www.scotland.gov.uk/Publications/2009/06/25133322/0>

⁸² Scottish Government *Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity (2008-2011)*, The Scottish Government, 2008. Available from:

<http://www.scotland.gov.uk/Publications/2008/06/20155902/10>

⁸³ Scottish Government *Eating for Health: a Diet Action Plan for Scotland*. Scottish Executive, 1996. Available from: <http://www.scotland.gov.uk/Topics/Health/Healthy-Living/Food-Health/Eating>

⁸⁴ Welsh Government. *Green Paper. A consultation to collect views about whether a Public Health Bill is needed in Wales*. Welsh Government, 2012.

⁸⁵ Welsh Assembly. *Food for Wales, Food from Wales 2010-2020 – Food Strategy for Wales*. Welsh Assembly Government, 2010.

⁸⁶ Welsh Government *Food and Well Being: Reducing inequalities through a nutrition strategy for Wales*. Food Standards Agency Wales, 2003. See

www.cardiffhealthalliance.org/attributes/HWB/food/Food+WellBeing_FSA2003.pdf

proposals. Table 5 summarises these opportunities along the different parts of the UK food supply chain (more details are given in the supplementary table provided in Annex 1 in the pdf version).

Table 5 Examples of opportunities for using nutrient profiling in the food supply

FOOD SUPPLY CHAIN	Examples of opportunities for using NP
Agricultural policies	NP can be used to assess the health impact of policies as part of a health, social and environmental impact assessment (farming, fishing and aquaculture policies; policies to incentivise production of more plant-based foods). Use NP to assess new products under development.
International trade policy	Use NP as part of health impact assessment in negotiations for multilateral, regional or bilateral trade agreements. Use to negotiate different terms of trade where health criteria other than food safety are rarely invoked.
Primary producers	Use NP to assess the nutritional impact of changing agricultural production methods.
Food manufacturers and processors	Reformulation – Use NP to set mandatory or voluntary targets for reformulating products; Use NP as a tool to inform companies’ decisions on new product development and reviewing existing products; Use NP to assess a company’s overall product portfolio, and to set targets for change. Portion size – Use NP to assess the impact of changing portion sizes and identify priorities for action. Replacing trans fats – Use NP to assess products where trans fats have been removed, and to monitor the situation. Complementary foods – Use an appropriate NP model to assess foods for infants and young children. New product development – Companies can use NP to set targets for product portfolio and to guide new product development or corporate mergers and acquisitions. New technologies for foods low in fat, sugar or salt – Use NP as a tool to guide R&D to ensure new products are all-round healthy. Government support for food technology research - Use NP to set criteria for public funding for food technology research. Self-regulation – NP can be used to evaluate industry efforts to improve the health profile of foods and drinks.
Food wholesalers and retailers	Retailers – Use NP to evaluate retailers’ product portfolio, to define targets and to measure progress. Incentives for retailers to offer healthier choices in areas with poor access – Use NP to enable local shops to expand their portfolio of healthy products suitably displayed and to qualify for incentive schemes. Healthy products as loss leaders – Use NP to identify appropriate healthy products.
Caterers in local government facilities (schools, early years care, colleges, social care, elderly care, leisure facilities, council offices)	Food in public institutions – Use NP to monitor/control the nutritional content of foods sold or served in public institutions; Use NP to assess contractor companies; Use NP to set standards for food to be served or sold in public institutions; NP can be a tool to assess the impact of modifying portion size, and to guide this process; Use NP to identify HFSS foods for which commercial information should be limited. Pricing – Using NP to identify products that should be offered at a high price (less healthy products) and those which should have a lower price (more healthy products) to encourage consumption. Public procurement – Use NP in procurement contracts, assessing companies tendering for contracts and setting standards for food in public institutions; Develop the use of NP as a tool and incorporate into toolkits for catering companies to improve their understanding of healthy foods and to guide their practice. Inspection/Regulation – Use NP as part of the assessment of good nutritional practice as part of regulatory inspections. Childcare – Use NP to identify products which are suitable to be brought into childcare facilities. Community meals (meals on wheels) – Use NP to assess meals, evaluate tendering companies and guide procurement process.
Caterers in health care facilities, for patients, staff and visitors	Setting standards – Use NP in the setting of standards for hospital food for patients, staff and visitors; Use NP to set standards for food sold in kiosks, vending machines and cafeterias for visitors and staff; Use NP to provide nutrition information (menu labelling); Use NP to guide patient nutrition services. Contracts – Use NP to assess companies tendering for catering contracts. Concessions – Use NP to assess companies for eligibility to run a concession outlet within

	hospitals.
Schools	<p>Vending machines, tuck shops, breakfasts, packed lunches, special events – Use NP to identify appropriate foods to be sold or served in state and independent schools; Use NP to define HFSS foods not to be available in schools.</p> <p>Inspections – Use NP to assess food provided in schools as part of inspection process.</p> <p>Guidance for governors and staff – Integrate NP into guidance to help define and describe foods and assess companies.</p> <p>Healthy takeaway service in schools – Investigate this and other innovative options for school meals. Use NP to assess foods.</p>
Other public sector catering: civil service, uniformed services	<p>Food in other public sector catering – Use NP to monitor the nutritional content of foods sold or served in public institutions; Use NP to assess contractor companies; Use NP to set standards for food to be served or sold in public institutions; NP can be a tool to assess the impact of modifying portion size, and to guide this process; Use NP to identify HFSS foods for which commercial information/marketing should be limited.</p>
Caterers in private sector workplace	<p>Provision of healthy choices – Use NP to assess nutritional quality of food offered and to encourage a progressive move to wider provision of healthy choices.</p> <p>Menu labelling – Use NP to provide nutrition information to employees.</p>
Commercial catering: high street, hotel, motorway, airport	<p>Reformulation – Use NP to set targets for reformulation of fast food.</p> <p>Menu labelling – Use NP schemes as a tool for caterers to provide menu labelling.</p>
All catering	<p>Healthy eating awards – Use NP to define healthy products that qualify for awards, or to assess caterers' provision of healthy/unhealthy foods.</p> <p>Reformulation and menu labelling – Use NP schemes as a tool for caterers to improve nutritional quality and provide menu labelling.</p> <p>Improving access and affordability – Use NP to help retailers and caterers define healthier food products to apply measures to make these products more accessible and affordable.</p> <p>Nutrition education – Use NP as a tool for nutrition education for catering staff; Use NP as a tool for a free nutrition advisory service for caterers.</p>
FOOD MARKETING – private sector	
Formulation	<p>Reformulation – Use NP to set mandatory or voluntary targets for reformulating products to reduce fat, saturated fat, sugar and salt and to increase fruit, vegetable and whole grain contents; Use NP as a tool to inform companies' decisions on new product development and reviewing existing products.</p>
Portion	<p>Portion size – Use NP to assess the impact of changing portion sizes and identify priorities for action.</p>
Position	<p>Product positioning – Use NP to identify healthier foods to be positioned to encourage consumption.</p>
Packaging and labelling	<p>Nutrition information – Mandatory traffic light labelling scheme based on NP in both retail (labels, shelf tickets) and catering (menu labelling).</p> <p>Claims – Use NP to set criteria for nutrition and health claims and to disqualify foods from carrying claims if they are unhealthy.</p>
Price	<p>Pricing strategies – Retailers, caterers, public institutions to use NP to identify foods which should be priced relatively high and those to price lower to encourage consumption.</p>
Promotion	<p>Promoting healthier foods – Manufacturers, retailers and caterers to use NP models to define the balance of price promotions between healthy and unhealthy products (define a target % and monitor implementation).</p> <p>Social marketing – Use NP as a tool for assessing impact of social marketing techniques and for monitoring/evaluation.</p>
Media controls	<p>Marketing to children – Extend use of NP, already used as the basis for existing controls on broadcast advertising to children, to all marketing (including non-broadcast, on-line and new media marketing).</p> <p>Cross-border standards – Use NP models to define cross-border standards for marketing of foods and drinks to children.</p>
Sponsorships	<p>Schools – Use NP to identify foods (or to assess companies) for which commercial communications, including sponsorship, should not be allowed in schools.</p> <p>Sponsorship – Use NP to identify which companies from which it is appropriate for community organisations, clubs, churches, workplaces, sports events etc. to accept sponsorship.</p> <p>Public sector – Use NP to assess whether companies are appropriate to provide sponsorship to the public sector.</p>
OTHER SECTORS	
Government food and	<p>National action plans – Use NP to set targets for dietary change and incorporate these targets into</p>

nutrition policy	<p>action plans; Use NP to define and describe food within Food-Based Dietary Guidelines and to define priorities for communication campaigns.</p> <p>Monitoring – Use NP to monitor the food environment, in the setting of indicators to monitor progress and, specifically, to assess the situation for different population groups.</p> <p>Health impact assessment – Incorporate NP into methods to assess impact of programmes or policies on consumption of healthy or unhealthy foods (e.g. economic, trade, transport, agriculture, industry and urban/rural development policies).</p> <p>Limiting commercial interests – Use NP to identify companies to be excluded from policy formulation process.</p> <p>Multi-sectorial mechanism for national food and nutrition policy – Use NP as a tool for planning, monitoring and evaluating national policy.</p>
Social support and welfare	<p>Food poverty – Use NP to assess the impact of actions to tackle food poverty and interventions to improve access to affordable healthy food.</p> <p>Welfare – Use NP to define foods which qualify for subsidised or free distribution; Use NP to assess foods provided at home through welfare support schemes.</p> <p>Defining healthy sustainable food – use NP to define ‘healthy sustainable food’ so that access and affordability can be evaluated and monitored.</p>
Fiscal policies, VAT, taxes, subsidies (inc CAP)	<p>Taxes/Subsidies – Use NP to identify foods to be taxed/levied or those which qualify for subsidies.</p> <p>Trade and fiscal policies – Use NP to assess the health impact of trade and fiscal policies.</p>
Investors	Assessing companies – NP can be used to assess companies’ overall portfolio and to measure their progress on nutrition, particularly whether their portfolio of products is getting healthier.
Research	<p>Innovation – Use NP to assess products coming through research pipeline to ensure products are all-round healthy; Use NP to assess research priorities and ensure that agriculture, fisheries and technology research is working towards dietary goals.</p> <p>Research and education funding – Use NP to identify companies’ from which research or educational funding should not be accepted.</p> <p>Monitoring the food environment – Use NP, with retailers’ electronic point of sale data, to assess and monitor the nutritional quality of the food environment.</p> <p>Environmental and food security goals – Use NP to assess the impact of policies to meet environmental and food security goals on nutritional quality of diets.</p>
Urban planning	<p>Schools – Use NP to assess outlets in the school vicinity and to inform planning decisions about the location of any new outlets, licences for mobile food vendors or siting of advertising billboards etc. near schools.</p> <p>Encouraging retailers in under-served areas – Use NP to inform planning decisions and to identify which retailers should be encouraged (qualify for tax breaks, eligibility for grants etc.)</p> <p>Planning – Use NP to guide planning decisions on the location and distribution of shops, markets, fast-food outlets and other commercial catering establishments.</p>
Education and mass media campaigns	<p>Public education – Use NP as a tool for nutrition education to help understanding of nutrition messages and how to apply these to food and shopping decisions.</p> <p>Nutrition education for health, education and childcare professionals – Use NP as a tool for nutrition education.</p> <p>Schools – Use appropriate NP models to define and describe foods and communicate clear messages about foods to children.</p> <p>Use NP as a tool as part of food skills education – Integrate into practical courses and use to assess recipes.</p> <p>Industry contribution to government campaigns – Use NP to rank companies according to the health of the products they sell and use this to calculate the size of the contribution these companies should make to financing government campaigns.</p>
Civil society	<p>Accountability – Use NP as a tool for monitoring policies and practices to be able to hold government, industry and public services to account.</p> <p>Influencing industry – Use NP to assess companies’ product portfolio and to evaluate and rate their commitment to change in order to raise consumer and investor awareness and, in turn, encourage change.</p>
Technology	New technology – Use NP to develop tools (e.g. mobile phone apps) to help people make healthy choices.

The number and breadth of opportunities described in Table 5 illustrate the immense opportunity for extending the application of nutrient profiling to UK and indeed to international food policy. The use of nutrient profiling represents overdue recognition that there are such things as ‘good’ and ‘bad’ foods, coupled with a tool that can translate nutritional data into this straightforward

concept on a food-by-food basis. In this way, there is scope to transform many long-standing, laudable aims of food policy into concrete improvements.

While Table 5 highlights the **breadth and reach** of the scope for nutrient profiling to improve nutrition at different points in the food choice model, it is also possible to illustrate the potential **scale of the impact** that nutrient profiling applications could have, by looking at one specific part of the food supply in closer detail.

Case study: Applying nutrient profiling to food eaten outside the home

As described earlier, food eaten outside the home makes an important contribution to the overall UK diet, with an estimated 19m adults eating out at least once per week and more than one in nine meals eaten away from home.⁸⁷ This is an important area of the food supply to scrutinise for opportunities to use nutrient profiling, because policies to improve the nutritional quality of food eaten outside the home have lagged behind policies impacting on retail food purchases and food eaten at home. For example, while some form of nutrition labelling – albeit less-than-perfect – on pre-packaged retail foods has been mandatory in the UK for decades, caterers are still not required by law to show the nutritional content of foods served. As of February 2015, 45 companies have signed up to the government’s public health responsibility deal pledge to provide point-of-choice calorie information (on menus, menu boards etc.).⁸⁸ This is, however, a voluntary pledge and concerns calorie information only.

Figure 10 (below) illustrates the breakdown of meals eaten outside the home, and highlights opportunities for nutrient profiling to be used to improve the nutritional contribution of these meals to the nation’s diet.

The catering sector has long been subject to strict food hygiene and health and safety regulation and inspection. Much of the food served outside the home, however, does not have to comply with any standards or rules in relation to nutritional quality.

There are nutritional standards in place for some public sector food, depending on the type of public institution and to differing degrees across the different nations of the UK. Recent years have seen campaigning for standards to be introduced for school food, hospital food and other public sector food, making the case that food paid for by the public purse should promote, rather than damage, health. This has resulted in greater acceptance of the concept of nutritional standards for public sector food and, concretely, adoption of some standards (e.g., mandatory nutritional standards for most school food, nutritional standards for hospital food in Scotland and Wales). Other sectors, such as early years educational settings in England, for example, are covered by voluntary guidelines. Nonetheless, large areas of public sector food provision are not covered by any legal nutrition standards and some of the existing nutrition standards are under threat.

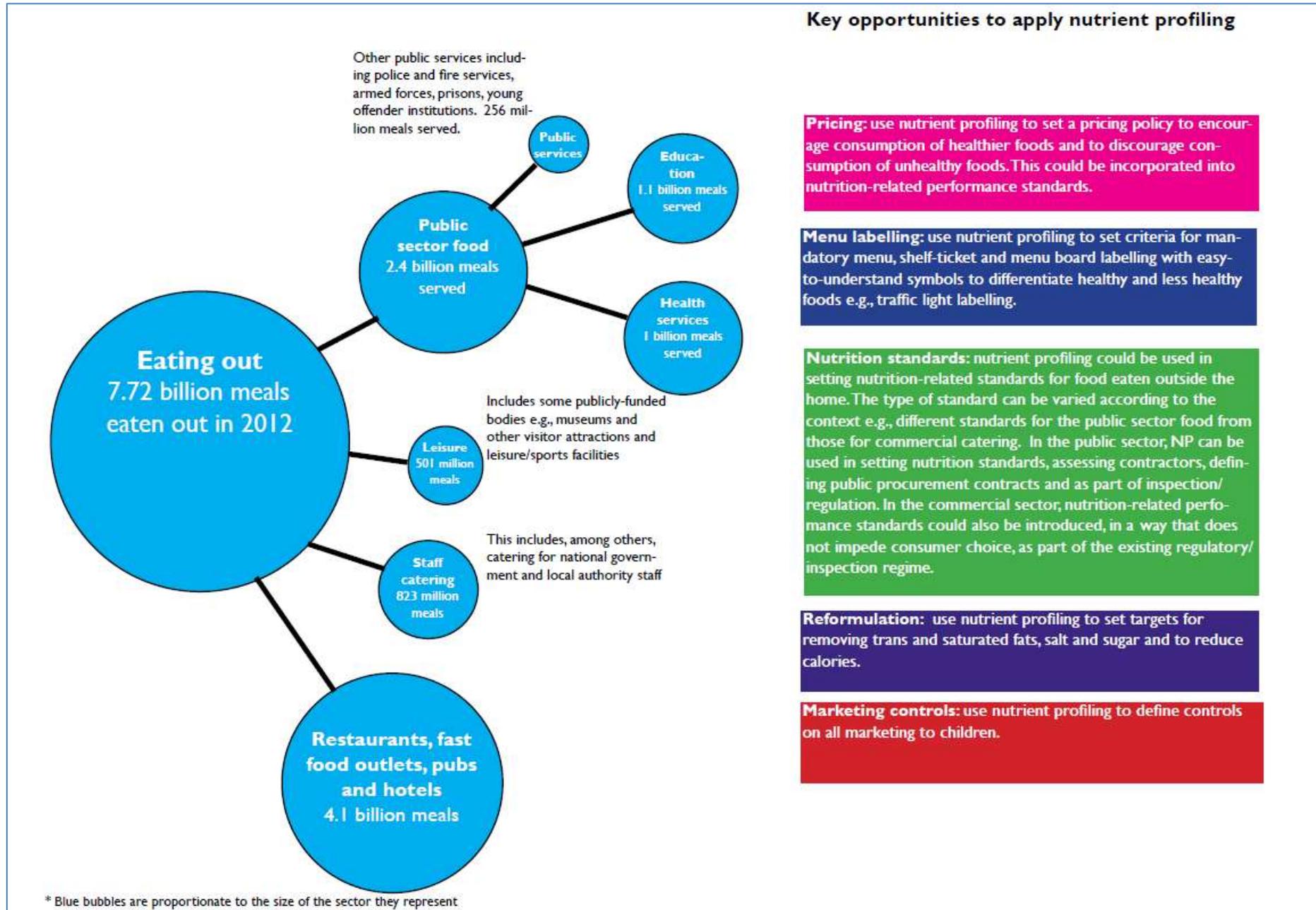
There is also the potential to use standards to improve the nutritional quality of food served in commercial outlets – restaurants, pubs, fast food outlets, etc. – although this has achieved far less attention. One of the rare examples of regulators introducing nutrition standards for meals provided in the private sector is the setting of nutrient standards for foods sold with toys as purchase incentives, introduced in 2011 by authorities in San Francisco and Santa Clara County, California.⁸⁹

⁸⁷ SJ Lampe UK Eating out Market to be Worth £79.7bn. *Hotel Business*, 2013. See <http://www.hotel-magazine.co.uk/uk-eating-out-market-to-be-worth-79-7bn>

⁸⁸ See <https://responsibilitydeal.dh.gov.uk/pledges/pledge/?pl=8>

⁸⁹ The regulations may have been sidestepped by McDonald’s selling toys for 1 cent rather than give them away with meals. See Huffington Post, 2011, at http://www.huffingtonpost.com/2011/11/30/san-francisco-happy-meal-ban_n_1121186.html

Figure 10 Meals eaten out in the UK in 2012 and key opportunities for nutrient profiling to improve the nutritional quality of these meals



Cohen and Bhatia have set out some model nutrition standards to improve the nutritional quality of away from home food in a way that does not impede the choice of consumers eating out.⁹⁰ The authors identified a number of options that could be included in nutrition-related performance standards for restaurants, cafés, fast food outlets etc. These can be summarised as:

- *At least one healthy option:* Establishments that serve full meals could be required to provide at least one meal option that provides 25% - 35% of recommended daily nutrients.
- *Portion sizes:* Require establishments to offer food in portion sizes that are consistent with dietary guidelines. This option—similar, for example, to the way that the sale of serving sizes of alcohol is regulated—would allow people to keep track of their consumption, while still allowing them the flexibility to consume as many portions as they want.
- *Labelling:* Using nutrient profiling to label foods that do/do not conform with dietary guidelines with appropriate cautionary symbols or icons, e.g. traffic lights.
- *Positioning:* Preferential positioning of healthiest options on menus, menu boards etc. where customers would notice them first. Using menu design, font size, colour, etc. to draw attention to healthier options.
- *Pricing:* Policy to ensure that meals which meet the nutrition standards cost no more than the average of other meals on the menu in the same venue.

Nutrient profiling could play an important role in defining the detail of any such standards. Not only would it be useful for defining the criteria for labelling, as noted by Cohen and Bhatia, it could also serve to identify criteria for the healthy option, positioning, pricing and portion size standards.

⁹⁰ DA Cohen, R Bhatia R. Nutrition standards for away-from-home foods in the USA. *Obes Rev.* 2012;13(7):618-29.

6 CONCLUSIONS

This paper has demonstrated that there are many opportunities to extend the application of nutrient profiling throughout the UK food supply to improve the nutritional quality of the British diet.

Experience has already shown that the application of nutrient profiling can be a critical factor in turning laudable food policy aims into concrete results. Arguably, after decades of a having a stated policy that consumers should have the information needed to be able to make healthier choices, the UK only implemented the policy by urging the use of interpretative (traffic light) labelling in the early 2000s, and has yet to require this scheme to be applied universally, or to tackle menu labelling in an equally comprehensive manner. The application of nutrient profiling was essential in realising that particular long-stated policy goal. Similarly, the practical application of nutrient profiling to identify foods high in fat, salt or sugar (HFSS) has been a critical step in implementing a policy to restrict marketing of HFSS foods to children.

As well as a means to turn policy goals into concrete gains, nutrient profiling also offers the opportunity to assess the credibility of food companies' broad-ranging statements about their commitment to improve the nutritional quality of the foods they sell. Holding food companies to account for their health impact is an important step in ensuring they are responsibly governed,⁹¹ and the use of nutrient profiling could be a key element in this process, allowing investors to assess companies' product portfolios, as well to set targets, monitor change and evaluate the real extent of their progress.

The potential use of nutrient profiling also opens up the possibilities for more meaningful assessment and evaluation of the impact of other policies on nutrition and health. Nutrient profiling offers a novel and valuable tool for the systematic application of health impact assessments.

From the evidence presented here we can be confident that nutrient profiling has a role to play in the development and implementation of nutrition policies for the prevention of obesity and NCDs. In order to progress the use of nutrient profiling, we make a number of recommendations:

- The potential opportunities to use nutrient profiling will need further and more detailed investigations, and we recommend that the UK government commissions a detailed report on this issue.
- The agreed global voluntary targets for obesity and NCD reduction will need to be operationalised into policies and actions, and there will be a need for a coordinating body with cross-departmental responsibilities to oversee this: we recommend that such a body is established within each of the devolved administrations, led by Public Health England and the respective devolved Health Departments.
- Oversight of these agencies should be conducted through parliament with an annual review by the Parliamentary Health Committee, held in open meeting, to assess the implementation and success of policies and the progress being made towards meeting the targets.

⁹¹ G Sacks et al A proposed approach to monitor private-sector policies and practices related to food environments, obesity and non-communicable disease prevention. *Obes Rev* 2013;14 Suppl 1:38-48.

- Where nutrient profiling is required by commercial operators or other private sector bodies, forms of monitoring, evaluation and accountability need to be developed, and appropriate incentives and sanctions considered: this may require statutory regulation or the use of the Open Method of Coordination (a soft regulatory approach using naming and shaming strategies) and we recommend that the government commissions a review to establish the best methods for ensuring compliance in these respects.
- In the private sector, nutrient profiling has a powerful role to play in assessing company activities: their portfolios of products and how the portfolio is changing, and in this respect investment banks and investment advisory services – especially those purporting to hold ethical positions – should combine resources to develop a common approach to evaluating company activity.

Nutrient profiling is only one of several valuable approaches to improving policy development. Examples of further tools include food product formulation standards (such as the salt content standards developed by the Food Standards Agency in the decade to 2010), food environment indicators (such as those being developed under the INFORMAS project⁹²), and Health Impact Assessments (used to evaluate all policies, as Business Impact and Environmental Impact Assessments are used at present).

Nutrient profiling is a powerful tool for policy makers and merits much greater use than it has seen. We hope the present report will aid in the development of nutrient profiling as a widely recognised and powerful tool in the promotion of public health.

⁹² S Vandevijvere et al. Monitoring and benchmarking population diet quality globally: a step-wise approach. *Obes Rev.* 2013 Oct;14 Suppl 1:135-49

ANNEX I: EXTENDED TABLE OF OPPORTUNITIES FOR NUTRIENT PROFILING

Policy recommendations for national or local government collated from the following sources: *Recipe for Success -- Scotland's Food and Drink Policy*, 2009; *Scottish Diet Action Plan*, 1996; *Diet, Physical Activity and Cardiovascular Disease Prevention in Europe*, European Heart Network, 2011; *WHO European Charter on Counteracting Obesity*, 2006; *First Action Plan for Food and Nutrition Policy for WHO European Region 2000 – 2005*; *WHO European Action Plan for Food and Nutrition Policy 2007 – 2012*; *Health 2020 – a European policy framework supporting action across government and society for health and well-being*, WHO 2012; *Action Plan for Implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012-2016*; *The Lancet Obesity Series 2011*; *2008 – 2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*; *Foresight Tackling Obesities: Future Choices – Project Report*, 2007; *The Lancet Non-Communicable Diseases Series 2013*; *Healthy Lives, Healthy People: A call to action on obesity in England*. Department of Health, 2011; *Welsh Public Health Green Paper*, 2012. *Choosing Health – Making healthy choices easier*, 2004; *Choosing Better Diet – a food and health action plan*, Department of Health, 2005. *Food Matters*, 2008, *Healthy Eating, Active Living*, 2008; *Food and Well Being: Reducing inequalities through a nutrition strategy for Wales*, 2003; *Food Strategy for Wales 2010-2020*, *Fit Futures: Focus on Food, Activity and Young People*, 2005; *Eating and Health – A food and nutrition strategy for Northern Ireland*, 1996; *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*, WHO, 2012; WHO European Food and Nutrition Action Plan 2015-2020; *The Lancet Obesity Series 2015*.

POLICY AREA <i>Existing policy commitments and a selection of policy options that have been proposed by a variety of bodies</i>	HOW NUTRIENT PROFILING (NP) COULD BE APPLIED with EXAMPLES OF NUTRIENT PROFILING ALREADY BEING USED
FOOD AVAILABILITY	
Food grown and imported (primary food production)	
IMPROVE SUPPLY: Improvement of supply of healthier food, including fruit and vegetables/ Explore scope of EU assistance to improve fruit and veg market orientation and competition.	
IMPROVE LOCAL SUPPLY: Encourage the growth of farmers markets, farm shops and local food initiatives.	
LOCAL FOOD NETWORKS: Support the development of local food forums and local food networks.	
FINANCIAL ASSISTANCE: Where state financial support provided to companies target those that commit themselves to producing healthier foods/ include health criteria in selection process.	NP can be used to assess companies' progress in relation to producing food and, therefore, eligibility for financial support.
FOOD AND AGRICULTURE POLICY: Build food security and health criteria into the delivery of farming, fishing and aquaculture policies which work towards improving diets.	NP can be used to assess the health impact of policies.
COMMUNITY FOOD SECTOR: Support community food groups and social enterprises to deliver a stronger community food and health sector.	
FOOD AND AGRICULTURE POLICY: Policy with incentives for production of more plant-based foods and promote a shift towards more plant-based diets.	Use NP to assess health impact of policies.
FOOD AND AGRICULTURE POLICY: Base future CAP on a sound health, social	Use NP as part of this impact assessment.

and environmental impact assessment.	
LIVESTOCK FARMING: Breed leaner livestock.	
FOOD AND AG DEVELOPMENT: Develop new low fat meat products.	Use NP to assess new products under development.
FOOD AND AGRICULTURE POLICY: Find alternative non-food markets for butter fat.	
FOOD AND AGRICULTURE POLICY: Promote agricultural production methods that improve the nutritional quality of foods.	Use NP to assess the nutritional impact of changing production methods.
FOOD AND AGRICULTURE POLICY: Specific measures to increase production of vegetables and fruit and its ease of public access by increasing availability and affordability.	
HORTICULTURE: Provide technical advice and market incentives for local horticulture, including urban horticulture.	
TRADE: Increase availability of healthier foods (e.g. fruit and vegetables) by reducing trade barriers to imports.	Use NP as part of health impact assessment in negotiations on trade deals.
Food available in shops (Manufacturing and retailing)	
REFORMULATION: Establish a dialogue with food manufacturers to promote the reformulation of existing mainstream products and development of new mainstream products (rather than those marketed as healthier versions) with reduced levels of saturated fat, salt, sugar or calories and/or increased fruit and vegetable and wholegrain contents. Also to reduce use of attractive non-essential additives (colours, flavourings) in foods high in fat, sugar or salt.	<p>Use NP to set mandatory or voluntary targets for reformulation by government/FSA.</p> <p>Companies use NP to take decisions on new product development and reviewing existing products.</p> <p>NP can be used to assess a company's overall portfolio, and to set targets for change.</p> <p>PepsiCo has used nutrient profiling to assess its product portfolio and to set and measure targets for change.⁹³ The company pledged that 60% of its total volume would be defined as healthier (according to FSA/Ofcom model) by 2015 and to invest 70% of its research and development budget in delivering healthier products.</p> <p>Unilever has devised its own Nutrition Enhancement Programme benchmarks to guide product development and by 2020 aims to double the number of products meeting the 'highest nutritional standards'.⁹⁴</p>
REFORMULATION: Provide technical support (particularly to small businesses) and public recognition to promote reformulation.	<p>NP can be a tool for companies to assess their overall portfolio, and to set targets for change.</p> <p>Nestlé has developed its own NP models (the Nestle Nutritional Profiling</p>

⁹³ PepsiCo UK & Ireland. *Health report pledge card*. See www.pepsico.co.uk/health

⁹⁴ See <http://www.unilever.com/aboutus/Nutritionandhealth/Makingourfoodhealthier/NEPbenchmarksApril2012.aspx>

	System) to review its products across its portfolio.
REFORMULATION: Setting specific reformulation targets and definition of a priority list of products for reformulation/ Specifically reformulate to reduce the sugar content in foods targeted at the child market.	Use NP to set reformulation targets and identify priorities.
PORTION SIZE: Encourage action from industry to address portion sizes/ Survey current range of portion sizes/ Develop guidance on portion sizes.	Use NP to assess the impact of changing portion sizes and identify priorities for action.
TRANS FATS: Introduce national legislation to ban industrially-produced trans fatty acids.	
TRANS FATS: Ensure that trans fats are not replaced by saturated fats, but favour polyunsaturated fats or overall fat reduction.	Use NP to assess products where trans fats have been removed and to monitor the situation.
COMPLEMENTARY FOODS: Manufacturers to reformulate to reduce and eliminate added sugar in weaning and infant foods.	Use a nutrient profile model to assess foods for infants and young children.
RETAILERS: Retailers should broaden range of healthier food products.	NP can be used to evaluate retailers' product portfolio, to define targets and measure progress. Sainsbury's is using colour-coded labelling to set targets for change – pledging to reduce the proportion of red ratings on own brand products. ⁹⁵ The Cooperative has pledged that at least 30% of its products with traffic light labelling will be healthy (according to FSA/Ofcom model).
NEW PRODUCT DEVELOPMENT: Manufacturers should develop products to increase consumption of fruit and vegetables, complex carbohydrate and oily fish.	Companies can use NP to set targets for their product portfolio and to guide new product development or acquisitions.
INDUSTRY: Manufacturers, retailers and research bodies should explore new technologies to facilitate foods low in fat, sugar or salt.	NP a tool to guide research and development to ensure new products are all-round healthy.
INDUSTRY SELF-REGULATION/PUBLIC-PRIVATE PARTNERSHIPS: Rigorous, timely and independent evaluation of any industry self-regulation or private public partnerships to demonstrate health improvements.	Evaluation of industry efforts to improve health profile of products can be assessed using NP.
INVESTMENT: Highlighting the economic opportunities for the private sector from investing in healthier options.	NP can be used to assess companies' product portfolios and progress – to inform investment decisions. The Access to Nutrition Index, being developed by GAIN, the Bill & Melinda Gates Foundation and the Wellcome Trust, aims to rate food and drink companies on their nutrition policies and practices and to help investors understand how companies perform on these issues. As part of this work, companies are rated on whether they have adopted and disclosed details of a NP system to guide their product formulation. ⁹⁶
OBESOGENIC FOODS: Control availability of and exposure to obesogenic foods	Use NP to define which foods and drinks to control availability of/exposure to.

⁹⁵ Sainsbury's 20 by 20 Sustainability Plan. J Sainsbury plc. Available from <http://www.j-sainsbury.co.uk/responsibility/20x20/>

⁹⁶ See <http://www.accessstonutrition.org/>

and drinks.	
INCENTIVES TO PRODUCE HEALTHIER FOOD: government incentives to reduce the public health harms associated with food.	Use NP to assess foods and companies in order to evaluate eligibility for incentive schemes.
RETAILERS: Investigate the feasibility of introducing healthy eating loss leaders.	Use NP to identify products to be loss leaders.
BREAD: Explore safety, efficacy and acceptability of replacing salt with potassium chloride in bread.	
INNOVATION: Establish food and health innovation and commercialisation centre to support commercialisation of research to create healthier products.	Use NP to assess products coming through research pipeline to ensure products are all-round healthy.
Food eaten outside the home, in schools, workplace, canteens	
FOOD IN PUBLIC INSTITUTIONS: Improve the nutritional quality of the food supply and food safety in public institutions (e.g. health and social services, childcare services, schools, workplaces, elderly nutrition services, military institutions, leisure facilities, government offices, local authorities).	Use NP to monitor the nutritional content of foods sold or served in public institutions. Use NP to assess contractor companies.
FOOD IN PUBLIC INSTITUTIONS: Adopt statutory national nutrition standards for food sold or served in public institutions.	Use NP to set standards for food to be served or sold in public institutions.
PUBLIC INSTITUTIONS: Caterers in public institutions should also be supported to introduce smaller portion sizes.	NP can be a tool to assess the impact of modifying portion size, and to guide this process.
PUBLIC INSTITUTIONS: Caterers in public institutions should also be supported to restrict commercial information relating to foods high in fat, sugar or salt.	Use NP to identify HFSS foods, for which commercial information (marketing and sponsorship) should be limited in public institutions.
PUBLIC INSTITUTIONS: Rules requiring public institutions to provide safe drinking water should be introduced.	
PUBLIC SECTOR PURCHASING POWER: The public sector can use the power of purchasing to support the strategic development of the domestic food sector.	Use NP to assess and guide this process to ensure that the strategic development of the domestic food sector also meets health objectives.
PRICING: The application of nutritional standards should be accompanied by pricing strategies to improve the relative affordability of healthier items.	Use NP to identify products that should be offered at a higher price (less healthy products) and those which should have a lower price (more healthy products) to encourage consumption.
PUBLIC PROCUREMENT: Public procurement guidelines should ensure that health criteria are taken into account. Develop guidance for good practice.	Incorporate NP into guidelines for public procurement – to assess companies tendering for contracts and to set standards for food to be procured and provided in public institutions.
PUBLIC PROCUREMENT: Development of appropriate knowledge, skills and expertise for producers and suppliers to access and deliver to public sector tenders.	
PUBLIC PROCUREMENT: Introduce an action plan that will support SMEs to supply healthy, sustainable food to the public sector and to help the public sector to procure healthy, sustainable food.	Develop the use of NP as a tool for companies to improve their understanding of healthy foods and to guide their practice.
PUBLIC PROCUREMENT: Strengthen the link between businesses, including small and medium enterprises (SMEs) and public sector procurers including the addressing of the categories used for food procurement, available budgets, indemnity insurance, menu development, availability of information on source of food procured and options.	
PUBLIC PROCUREMENT: The production of a series of good practice guides and toolkits to provide producers, suppliers, buyers and catering staff with clear practical guidance framework to aid the procurement of healthy, sustainable food in the public sector.	Incorporate NP into the toolkits to enable caterers supplying the public sector to provide healthy food.

COMMERCIAL CATERING: Draw on experience with school meals standards to inform practices in commercial catering.	
LOCAL AUTHORITIES: Local authorities should identify what they can do to influence their local environment to support healthier more sustainable food choices.	Use of NP in procurement contracts, setting standards for food in public institutions.
CATERING: Establish Healthy Eating awards to increase the range of healthier choices available from participating caterers and use incentive approaches to encourage them to provide healthier menu items and provide nutrition information (for smaller chains where regulatory approach may not be appropriate).	Use NP system to define healthy products that qualify for healthy eating award (e.g., the Healthier Food Mark).
CATERING: Support and encourage catering sector in the provision of healthier choices, encouraging use of oils high in polyunsaturates on monounsaturates, rather than hard fats, introduction of smaller serving sizes and provision of clear nutrition information.	NP schemes as a tool for catering companies to improve nutritional quality and provide menu labelling.
CATERING: Legislate to require catering establishments to make vegetables or a salad bar included in the cost of a main meal/ Encourage caterers to include vegetables or a side salad as part of a main meal/ School meals should include vegetables and fruit within the price of meals.	
INSPECTION: Ensure that good nutritional practice is an important aspect of annual inspection procedures (for schools, child care, social care services, prisons, health services, etc.). Inspections to be carried out by qualified specialists.	Use NP system as part of the assessment of good nutritional practice to be incorporated into regulatory inspections.
SCHOOLS: Promote the development of pre-school and school nutrition and food safety policies and programmes with a whole-school approach in kindergartens and schools.	NP can play a role in policies to improve pre-school and school nutrition. Nutrient-based school meal standards are based on the nutrient content of meals provided over a period of time, rather than on nutrient profiling. NP, however, is still useful for setting standards for processed foods and to identify appropriate foods which can be distributed through vending machines or tuck shops, packed lunches or food served at special events. Voluntary target nutrient specifications have been drawn up for manufactured food used in school meals, setting maximum levels for total and saturated fat, salt and sugars, along with a minimum protein content.
SCHOOLS: Schools should take steps to ensure that tuck shops and school vending machines reinforce the health promotion and health education messages of the school by providing a range of healthy food choices.	Use of NP to identify foods which can be sold in vending machines and tuck shops.
SCHOOLS: Schools inspectors should include the monitoring of the provision by both in their inspections of health promotion and health education and publish their findings in inspection reports.	Use NP to assess food provided in schools (canteens, tuck shops, vending machines) as part of inspection process.
SCHOOLS: Nutrition standards for school food should be distributed to and commended to self-governing and independent schools.	As with state schools, NP can play a role in setting standards for tuck shops, vending machines, packed lunches.

SCHOOLS: Schools should be encouraged to set up School Nutrition Action Groups which offer a multi-agency approach to tackle food-related education and health issues.	
SCHOOLS: Development of policies which limit children's access to outlets selling unhealthy foods during the school day.	NP can be used to assess outlets in the school vicinity and to inform planning decisions about the location of any new outlets.
SCHOOLS: Schemes to offer people free fruit or vegetables at school and in pre-school care/ Run school fruit tuck shops on a cost-recovery basis/ Provide repeated and sustained exposure to fruit and vegetables.	
SCHOOLS: Policies to provide free school meals to all pupils.	
SCHOOLS: Take action to increase the uptake of school milk, including free school milk.	
SCHOOLS: Encourage the provision of breakfasts in schools.	Use NP in setting the standards for breakfasts provided in schools.
SCHOOLS: Encourage provision of fresh water dispensers in all schools.	
SCHOOLS: Schools need to be fully funded so they are not put in the position of having to raise funds for school programmes, which renders them vulnerable to pressure from commercial interests.	
SCHOOLS: School neighbourhoods should be free from inducements to consume unhealthy foods (including ice-cream vans, hot-dog vans, child-targeted advertising) and refusal of new trading licenses for fast food outlets.	Use NP to inform planning decisions about location of food outlets and controls on advertising targeted at children.
SCHOOLS: Ensuring that energy dense and high salt snacks, high sugar soft drinks and confectionery that is high in fat or sugar are not available in schools / Policies to reduce numbers of vending machines and limit availability of soft drinks and sweets.	NP to define which foods are not to be available in schools.
SCHOOLS: Provide heads and governors with guidance on food procurement.	Integrate NP into guidance (defining and describing foods, assessing companies).
SCHOOLS: Investigate potential uptake and effectiveness of a 'healthy take away meal' in schools and other innovative approaches to reduce queuing for school meals.	Use NP to assess takeaway meals and other options.
FAST FOOD SECTOR: Fast food sector should broaden the range and choice of nutritionally beneficial foods which it offers to consumers. This should include efforts to reformulate products: the feasibility of an incremental reduction in the fat content of standard products should be examined urgently.	Use NP to set targets for reformulation of fast food.
HOSPITALS: Improve the quality of nutrition services and food safety in hospitals, by providing safe, palatable and nutritionally adequate food according to individual patients' needs and in line with food-based dietary guidelines.	Use NP in the setting of standards for hospital food for patients and visitors.
HOSPITALS: Improve the quality of nutrition services and food safety in hospitals, by improving the supply of food in kiosks, vending machines and cafeterias for visitors and staff.	Use NP to set standards for food sold in kiosks, vending machines and cafeterias for visitors and staff. Use NP to provide nutrition information to patients, visitors and staff. Use NP to assess companies for eligibility to run a concession outlet within

	hospitals (e.g., fast food chains, coffee chains). In Wales, legislation based on nutrient profiling was introduced to prohibit unhealthy foods and drinks from distribution via vending machines in hospitals. ⁹⁷
WORKPLACE: Schemes to offer people free fruit at work.	
WORKPLACE: National governments to encourage and support employers, trade unions and other employees' organisations to work together to promote and facilitate healthy eating.	NP could be used to provide nutrition information or guide pricing on food served or sold in workplaces.
WORKPLACE: Ensure food served or sold in the workplace is of a high nutritional quality and that employees have access to clear information on the nutritional composition of all food sold or served in the workplace.	NP can be used to guide the provision of food in the workplace and to provide information to employees on the nutrient content of foods sold or served.
RETAILERS AND CATERERS: Develop policy measures directed at food retailers and caterers to improve the accessibility and affordability of healthier food products.	NP can be used to help retailers and caterers define healthier food products to apply measures to make these products more accessible and affordable.
DRINKING WATER: Better provision of fresh drinking water: provision of safe, unsweetened, normal drinking water, particularly in schools, workplaces, public places and public institutions.	
CHILDCARE: Guidelines on dietary practices for nurseries and kindergartens should be developed and disseminated. Inspection / licensing requirements should include food criteria.	NP to be used, alongside standards for meal provision, to identify products which are suitable for serving or to be brought into facilities.
Land, tools and seed for home production	
GROWING YOUR OWN: Ensure strategic support for allotments and 'grow your own' projects which can support environmental objectives and at the same time provide opportunities for people to be more active and eat more healthily.	
GROWING YOUR OWN: Produce practical advice and best practice guidance that will appeal to public bodies, communities and individuals to help them develop local 'grow your own' initiatives.	
URBAN FOOD: Designate urban areas for local food production.	
SUPPORT COMMUNITY FOOD GROWING: National and local governments should support community food growing. Options include community-supported agriculture, farm-to-school initiatives, community allotments, school growing schemes, temporary leases to allow growing on unused land and a community land bank to act as a broker between landowners and groups wanting land for growing food/ Opportunities to leverage the power of local action should be used, including short supply chain approaches (e.g., farm-to-school programmes).	
FOOD ACCESS	
Access to shops	

⁹⁷ Which? *The state of our plates. Progress report on food in public institutions*. London: Which? 2011.

URBAN DEVELOPMENT: National and local policies should encourage and facilitate retailers to locate in under-served areas. Planning and zoning rules and incentives (tax benefits, loan guarantees, grants to cover start-up costs).	NP can play a role informing planning decisions and urban development policies to identify which retailers should be encouraged (qualify for tax breaks, eligibility for grants, etc.).
RETAILERS: Strategies to give incentives for existing retailers to offer healthier choices in areas with poor access should be explored.	Use NP to enable local shops to expand their portfolio of healthy products and to qualify for incentive schemes.
RETAILERS: Provide advice, encouragement and training to local businesses and other organisations in order to promote the range of food on offer to local communities.	
TRANSPORT: Initiatives to provide free, or low cost, transport, to facilitate access to stores for low income consumers / Investigate the feasibility of free delivery.	
PLANNING: Empower local planning authorities to regulate the location and distribution of food stores, including fast food stores and suppliers of fruit and vegetables.	Use NP to guide planning decisions on the location and distribution of shops and markets.
PLANNING: Health considerations to be taken into account in planning decisions on the location of and density of fast-food outlets, other catering establishments, food retail shops and vending machines.	Use NP to assess food outlets and inform planning decisions.
RETAILERS: Facilitate links between major retailers and health and social care providers.	
CORNER SHOPS: Programmes which seek to improve the availability of healthier food options to communities through the convenience store sector.	
IMPROVING ACCESS TO FRUIT AND VEG: Develop models of good practice in a particular locality to improve public access to fruit and vegetables.	
BUYING DIRECTLY FROM FARMS: National and local governments should aim to increase access to mechanisms for people to buy directly from farms. Options include farmers markets, community-supported agriculture, pick your own, farm-to-school initiatives.	
Cost and affordability of food	
PROMOTING HEALTHIER FOODS: Manufacturers, retail and catering sectors should use their know-how to promote consumption of healthier foods – including price promotions.	Use of NP models to define the balance of product price promotions between healthy and unhealthy. Define a target percentage and monitor implementation. The Cooperative and Sainsbury's are already doing this – setting a target for proportion (e.g.,30%) of price promotions to be on healthier products. ⁹⁸
TAXES/SUBSIDIES: Use of economic instruments such as supply chain incentives, taxes, duties or subsidies to make healthier food more affordable and/or unhealthy food less affordable, taking into account their impact on different socio-economic groups/ Prioritise taxes on unhealthy foods that are popular and habit-forming in young people / Focus subsidies on foods for which target population have a preference but for whole access is a barrier to greater consumption.	Use of NP models to identify foods to be taxed, or on which duties to be levied and/or identify foods eligible for subsidies. Use of NP could enable taxes to be levied on unhealthy foods, based on a combination of nutrients, rather than levying taxes on a single nutrient, such as fat or added sugar, or just broad categories of food or drink.
PRICING: Pricing strategies should be implemented to promote healthier food in a wide variety of settings (retailers, caterers, public institutions) on a national or local	Use of NP models to identify which foods should be priced relatively high and those where prices should be reduced.

⁹⁸ Which? *A taste for change? Food companies assessed for actions to enable healthier choices*. London: Which? 2012.

level.	
TAX REVENUES: Build the case for fiscal mechanisms to support healthy choices and explore the use of revenues from these taxes to funding sustainable structures for health promotion.	Use NP to define foods to be subject to taxation and those to qualify for subsidies.
ECONOMIC POLICY: Ensure trade agreements and agricultural and food fiscal policies (e.g., subsidies, taxes, import tariffs, and quotas) protect and promote health.	Use NP to assess the health impact of trade, agricultural and fiscal policies.
Policies to improve access to affordable healthy foodstuffs for lower socio-economic groups or other vulnerable groups	NP models to be used in the health impact assessment of policy proposals.
SCHOOLS: Health authorities should explore the potential for partnership arrangements to facilitate the introduction of healthy eating initiatives tailored specifically to the dietary needs of children in schools in low income areas.	Use NP to assess the impact of interventions.
SCHOOLS: Extend entitlement to free school lunches to more families in need.	
FOOD POVERTY: Explore the evidence around food poverty in different income groups and areas (both urban and rural), looking in more detail at what activities are already being done and developing an action plan for supporting and promoting successful future approaches.	Use NP to assess the impact of actions and potential future approaches.
ACCESS INITIATIVES: Support vulnerable groups, including those living in rural areas and the elderly living in the community, by evaluating the evidence and potential actions around access to affordable healthy food.	Use NP as a tool for the evaluation of actions to improve access to affordable healthy food.
RETAILERS: Work in partnership with the retailers to examine issues and actions relating to access and affordability of healthy and sustainable foods.	
RETAILERS: Develop initiatives to improve the buying power of convenience stores in relation to good quality fresh fruit and vegetables.	
VOUCHERS: Provide vouchers for vulnerable groups, e.g., pregnant women and children, to purchase healthier foods.	Use NP to define what products can be purchased with vouchers. The Healthy Start scheme, for example, provides vouchers for a limited range of foods (milk, fresh or plain frozen fruit and vegetables) to some vulnerable groups. NP could be used to extend the range of foods covered by vouchers.
TARGETED SUPPORT FOR VULNERABLE GROUPS: <ul style="list-style-type: none"> • providing food subsidies, • distributing food commodities, • providing free or subsidised access to catering establishments, • and administering meals at home and other forms of social support. 	Use NP to define which foods qualify for subsidies or for distribution, and to ensure the nutritional quality of food provided at home through welfare support schemes.
COMMUNITY FOOD INITIATIVES: Promote and focus dietary initiatives within low income communities/ Specifically establish more 5-a-day community initiatives so as to encourage fruit and vegetable consumption.	
COMMUNITY MEALS: Investigate extent and content of ‘meals on wheels’ for elderly people, particularly in rural communities.	Use NP to assess the content of community meals.
COMMUNITY FOOD INITIATIVES: Strategic approach to community food initiatives.	
FOOD KNOWLEDGE	

Skills in budgeting, shopping and cooking	
SCHOOLS: Introduce a short course on practical food preparation for healthy eating for all pupils. This course should be supported by nationally produced materials and resources.	Use NP as a way to describe and define healthy foods as part of the practical food course.
SCHOOLS: Explore partnership opportunities to support cookery skills education in schools and for adults using healthy sustainable food.	
FOOD SKILLS: Introduce programmes to increase food literacy and food skills.	
FOOD SKILLS: Encourage cooking clubs where children prepare and cook healthy food in a fun and enjoyable way.	
FOOD SKILLS: Development and distribution of recipes for easily prepared, low cost, healthy dishes.	Use NP to assess the recipes.
FOOD SKILLS: Develop a food skills academy.	
Nutrition education	
PUBLIC EDUCATION: Conduct public campaigns aimed at informing consumers about food, nutrition, food safety and consumer rights/ Use multicomponent initiatives to improve food and health literacy and enhance food and nutrition skills (including for the active and working-age population).	NP can be a tool for use in nutrition education to help the public understand nutrition messages and how these apply to food and shopping decisions. Researchers in the US tested a nutrition education programme that included ratings for food products using one NP system (the Nutrition Rich Food Index) with some success. Participants in the intervention group reported significant increases in meal planning and ability to select nutritious foods and overall diet quality improved more in the intervention than the control group. ⁹⁹
SOCIAL MEDIA: Encourage the use of social media and new techniques to promote healthy food choices.	NP can be a tool for use in education through social media to help the public understand nutrition messages and how these apply to them.
DEFINE HEALTHY EATING MESSAGES: Government to work with creative media, the food industry, consumer groups, health professionals and others to agree a clear and simple set of healthy eating messages.	Use NP as a tool for defining and describing foods.
SCHOOLS: Ensuring that children have the necessary education and practical skills by including both nutrition and food skills in the school curriculum.	NP can be valuable in nutrition education to convey simple, meaningful messages to children about nutrition and foods (to identify 'good foods' and 'bad foods').
HEALTH PROFESSIONALS: Ensure that health professionals and residential and day care staff with care responsibilities for children under five have a working knowledge of the dietary and nutritional needs of young children.	Use appropriate NP model as a tool to help professionals working with young children understand healthy nutrition.
HEALTH PROFESSIONALS: Encourage health professionals who work with small children, in particular health visitors, to provide dietary and nutritional advice and guidance to the parents of children under five years of age.	
CHILDCARE PROFESSIONALS: Local authorities should similarly encourage childcare professionals to provide dietary and nutritional advice and guidance to the	

⁹⁹ Glanz K, Hershey J, Cates S, Muth M, Creel D, Nicholls J, Fulgoni V, Zaripheh S. Effect of a Nutrient Rich Foods Consumer Education Program: Results from the Nutrition Advice Study. *J Acad Nutr Diet.* 2012;112:56-63

parents of children under five years of age.	
TEACHERS: All trainee teachers should receive adequate training in health education, including nutrition and diet, appropriate to their course.	NP can be used as a tool for nutrition education for teachers to help define and describe foods.
HOSPITALITY MANAGEMENT: All catering staff to have basic level of training in nutrition and diet. Further and higher education institutions offering courses in hotel and catering management should include nutrition and dietary education in their curricula.	NP can be used as a tool for nutrition education for catering staff.
PREGNANT WOMEN: Health professionals to provide dietary information to pregnant women about their own nutritional needs as well as those of their babies.	
WOMEN: Campaigns to alert potential parents of the need for good nutrition prior to, as well as during, pregnancy.	
CHILDREN: Special initiatives to encourage children under five years of age to eat healthily should be explored by local authorities, including the value of employing the services of home economists and/or dieticians to provide advice and support on diet and nutritional matters to families with young children.	
CATERERS: A low cost (or free) nutritional advisory service, which caterers could approach for advice and nutritional analysis of food recipes should be piloted.	NP could be a useful tool for this advisory service, providing clear messages about foods and/or recipes and driving forward healthier recipe development.
HEALTH PROFESSIONALS: Through continuing professional education greater priority should be given to providing adequate dietary education and counselling skills to enable health professional staff to give dietary advice to patients, both opportunistically and routinely.	Provide health professionals with an understanding of nutrient profiles as a tool for nutrition education and counselling.
EDUCATIONAL MATERIALS: Explore the scope for, and utility of, a promotional publicity/branding device which might be used on all relevant materials concerned with healthy eating.	
MEDICAL EDUCATION: Medical and nursing schools and professional bodies should ensure that appropriate emphasis is given to nutritional and dietary issues in their respective education and training courses and programmes.	
SCHOOLS AND PRE-SCHOOL: Promote the development of pre-school and school nutrition and food safety policies and programmes with a whole-school approach in kindergartens and schools, including: <ul style="list-style-type: none"> • education in nutrition, the sensory properties of food, food safety and physical activity as part of the curriculum, • by making use of the Nutrition-friendly School Initiative and other guidance available; • training teachers and other school staff. 	Use appropriate NP systems to communicate clear messages about foods to children.
HEALTH PROFESSIONALS: Engage primary health care staff in nutrition assessment and the provision of counselling on diet, food safety and physical activity, including: <ul style="list-style-type: none"> • infant and child growth monitoring; • weight measurement and dietary assessment in adults; • protection, promotion and support of breastfeeding; • and promotion of a balanced diet, safe food handling practices and 	

physically active behaviour, by revising terms of reference, developing guidelines, building capacity and providing appropriate incentives.	
NUTRITION EDUCATION: Ensure the provision of dietary counselling in worksites, clinics and hospitals.	NP can be used as a tool for nutrition education to help define and describe foods.
SCHOOLS: Nutrition education should include training for school nurses and canteen staff.	NP can be used as a tool for nutrition education to help define and describe foods.
NUTRITION ADVICE SERVICE: A telephone, internet and digital television service to provide the public with cost-effective, easily accessible and confidential personal advice.	Use NP as a tool for nutrition education to help define and describe foods.
CARE STAFF: Qualifications for care staff (social care and child care staff) should include a component of food and nutrition education.	
Breastfeeding support (<i>Promote and support exclusive breastfeeding for the first six months of life, continued breastfeeding until two years old and beyond with adequate and timely complementary feeding</i>).	
SCHOOLS: Education authorities to include, at relevant points in the curriculum, material on the benefits of breastfeeding in order to inform pupils.	
HEALTH SERVICES: Health authorities to encourage achievement of local breastfeeding targets and ensure compliance with Baby Friendly Hospital Initiative in hospitals.	
INTERNATIONAL CODE: Government must ensure that international conventions on infant feeding adhered to and conduct regular review of the national implementation of the Code and subsequent WHA resolutions.	
STRATEGY: Implementing sound national infant and young child feeding strategies which incorporate wide-ranging measures to protect, support and promote breastfeeding.	
SOCIAL POLICY: Social and employment policies that protect breastfeeding by improving parental leave provision, requiring facilities for breastfeeding, allow breastfeeding breaks, provide flexibility for working women during lactation, etc.	
COMMUNICATION: Government communication programme to promote breastfeeding.	
LEGISLATION: Legislative measures including banning the promotion of breast milk substitutes, banning all health and nutrition claims on foods for infants, young children, pregnant women and nursing mothers.	Use NP to assess foods for infants and young children.
Food labelling, advertising and marketing	
MENU LABELLING: Improve provision of nutrition information on food eaten outside the home – mandatory requirement to provide nutrition information (traffic lights) for all chains with more than 10 outlets.	Use NP as basis for traffic light labelling for menus and food items. The Cooperative, for example, applies traffic light labelling to all food sold in its cafés and to takeaway hot food.
TRAFFIC LIGHT LABELLING: Mandatory, front-of-pack traffic light nutrition information.	NP is used to define traffic light system and apply it. The Food Standards Agency traffic light labelling model gives a red, amber or green signal for four nutrients.
CONTROL MARKETING TO CHILDREN: Measures to protect children from	Use of NP to identify products for which advertising to children is to be

audiovisual commercial communication concerning unhealthy food including broadcast, non broadcast, on-line, new media, sponsorship, toy promotions, in-store promotions/ Ensure adequate provision for independent monitoring and evaluation.	prohibited. The Ofcom/FSA model is used in the UK to restrict broadcast advertising to children.
PLANNING: Local authorities to take action to protect children from commercial messages about unhealthy foods in or near schools, play areas and other places where children gather.	Use of NP to identify which products are not to be advertised or promoted in the vicinity of schools, play areas or other places where children get together.
MARKETING: Stimulate demand for healthier food by innovative marketing initiatives, including in-store marketing techniques/ Redesigning the choice architecture at point-of-purchase.	Use of NP to identify healthier foods to be promoted. The Keyhole symbol, for example, is used in Sweden, Denmark and Norway to identify healthier foods.
MASS MEDIA CAMPAIGNS: Mass media educational campaigns to increase demand for healthy foods – authorities working with food industries and creative industries. This should include stimulating the demand for oil rich fish and promoting fruit and veg consumption (particularly among specific population groups with lower consumption).	Use NP to identify foods to promote through mass media campaigns.
PRODUCT POSITIONING: Manufacturing, retail and catering sectors should use their know-how to promote consumption of healthier foods – including the positioning of different products in shops or catering outlets.	Use of NP to identify healthier foods to be positioned to encourage healthier choices and to identify unhealthy foods to be restricted (e.g., at supermarket checkouts).
CLAIMS: Implement rules on nutrition and health claims.	NP is important in regulating nutrition and health claims in two ways: <ul style="list-style-type: none"> ■ To set the criteria for claims (e.g., low fat, reduced fat) ■ To disqualify foods from carrying claims if they are not all-round healthy products (even if they qualify for the specific criteria for that particular claim). ■ The European Food Safety Authority has set the qualifying criteria that relate to specific nutrition and health claims. It is due to select a nutrient profile model to ensure that claims do not appear on unhealthy products, but there have been delays in this part of the process. ■ Food Standards Australia and New Zealand has developed the Nutrient Profiling Scoring Criteria (often known as FSANZ model) to control the nutritional quality of foods carrying nutrition and health claims.
SCHOOLS: Prohibition on commercial communications for HFSS foods aimed at children and young people in schools, as elsewhere.	Use NP to identify foods (or to assess companies) for which commercial communications, including branded education materials or other forms of sponsorship or brand-sharing, to be banned from schools.
SPONSORSHIP: Develop guidance for commercial sponsorship in the public sector.	Use NP to assess companies eligible to (or not allowed to) provide sponsorship in the public sector.
INFORMATION: Provide accurate and balanced information for consumers in order to enable them to make well-informed, healthy choices/ Provide a one-stop shop for consumers looking for information and advice on nutrition and food.	Use NP in the design of traffic light labelling and to guide other consumer information and education.
MARKETING TO CHILDREN: Ensure full implementation of <i>the WHO set of recommendations on marketing of foods and non-alcoholic beverages to children</i> , including mechanisms for monitoring.	Nutrient profiling is an important tool for implementing the WHO recommendations on marketing to children. The FSA/Ofcom model is used in this way – successfully reducing children’s exposure to advertising for HFSS foods. In the US, guidelines for marketing

	foods to children, developed by an interagency working group and based on a nutrient profile model, have been proposed, although subsequently shelved.
MARKETING/PROMOTIONS: Food and beverage companies, advertising agencies and media organisations should be accountable for ensuring that the promotion of food products is consistent with public-health dietary goals.	Use NP to guide marketing practice (beyond compliance with existing rules on marketing to children). Some UK retailers already use nutrient profiling to fulfil commitments to ensuring that a given proportion (30%) of their product promotions are on healthier products.
INDUSTRY FUNDED NATIONAL CAMPAIGNS: Government discussion with food industry on how companies might contribute to funding national campaigns and other national initiatives.	Use NP to identify companies who sell unhealthy products and, therefore, are asked to make a contribution to nutrition campaigns.
MARKETING TO CHILDREN: Governments should support the creation of an international monitoring body to identify issues of compliance with cross-border standards for marketing of food and beverages to children.	Use NP models to define cross-border standards for marketing of foods and beverages to children for monitoring by an international body.
Media reports and features	
MEDIA: The media have an important responsibility to provide information and education, raise awareness and support public health policies in this area.	
MEDIA: Work with local media and retail industry to convey correct messages to the public.	
BREASTFEEDING: Measures to encourage a more sympathetic attitude by the general public towards breastfeeding.	
PERSONAL CHOICES	
Family practices	
HEALTHY ENVIRONMENTS: Individuals need to make healthy food and activity choices, and help to create healthy food and physical activity environments in homes and other settings, such as schools, workplaces, sports clubs, churches, and community organisations.	NP can be used as a tool to guide individuals and community groups to ensure that food sold or provided in community settings are healthy. NP can also help community groups or other organisations to identify companies from which it is inappropriate to accept sponsorship from.
PARENTS: Penalise parents for the unhealthy lifestyles of their children.	
Needs and tastes	
CULTURE: Food-based dietary guidelines and food safety guidelines should take account of cultural and religious sensitivities.	
RESEARCH, DATA AND ANALYSIS	
RESEARCH: Research activity on nutritional aspects of health to improve dietary awareness should be a high national priority, (including human nutrition research, technology, agriculture, fisheries and environment, etc.).	Use NP to assess research priorities and particularly ensure that agriculture, fisheries and technology research is working towards dietary goals.
RESEARCH: Improve public and private research:	Use NP as a tool for assessing the impact of social marketing techniques or

<ul style="list-style-type: none"> to enhance understanding of the role of nutrition, food safety and lifestyle factors in disease development and prevention; to strengthen the evidence base for interventions and policies; to develop innovative solutions that address nutrition and food safety challenges; to describe the sociological and cultural aspects of eating; to assess the impact of social marketing techniques, new communication channels and different labelling schemes on consumers' dietary choices, especially in lower socioeconomic groups; and to develop simple, valid and economical monitoring and evaluation tools. 	labelling schemes and for monitoring/evaluation.
COORDINATE RESEARCH: Ensure coordination of government-funded research and development relating to safe, low-impact food and a healthy diet.	Use NP to evaluate potential impact of research priorities and strategies on the nutritional quality of food supply.
SHARING DATA: Relevant industries need to support efforts to monitor progress towards healthier food systems by the sharing of relevant data, which helps governments to assess progress towards targets while protecting commercially sensitive information.	
MONITORING: Contribute, on a routine basis, data and information on trends in respect of noncommunicable diseases and their risk factors disaggregated by age, gender, and socioeconomic groups; and provide information on progress made in implementation of national strategies and plans.	
HIGHLIGHTING GOOD PRACTICE: Promoting demonstration projects, for example, for physical activity and dietary change in the community.	
RESEARCH AND EDUCATION (Conflict of interests): Funding and other support for research, education or programmes should not be accepted from the ultra-processed food and drinks industries or their affiliates and associates.	Use NP to assess companies' product portfolios and to identify companies from which research or educational funding should not be accepted.
NEW RESEARCH PRIORITIES: Accelerate and prioritise the funding of policy development research on modes of regulation and market interventions. A new dedicated scientific discipline for the study of these industrial diseases, and of the transnational corporations that drive them, requires substantial development.	
INFANT FEEDING RESEARCH: Nutrition supplements and food welfare support for pregnant mothers and infants should be reviewed for their impact on weight gain and growth. Food-based support for infants should be based on promoting a healthy, varied diet.	
RETAIL DATA: Access to retailers' electronic point of sale (EPOS) data to facilitate monitoring and evaluation of initiatives to improve the diet.	Use NP for monitoring and evaluation (defining improvements to the diet).
MONITORING FOOD ENVIRONMENT: Characteristics of the food environment, including nutritional quality, prices of foods and marketing practices, should be independently monitored.	Use NP to assess and monitor the nutritional quality of the food environment.
RESEARCH: Use the latest research evidence to link environmental goals to food and nutritional goals.	Use NP to assess the impact of environmental goals on food and nutrition.
RESEARCH: Evaluate the access to, and affordability of, healthy sustainable food where this impacts on national food security.	Use NP as part of the definition of ' <i>healthy sustainable food</i> ' so that access and affordability can be evaluated.

RESEARCH: Fund research that will help meet the challenges of food security in this country and the rest of world.	Use NP to predict how measures to improve food security may affect nutritional quality of diets.
POLICY COORDINATION, OVERSIGHT	
TARGETS: Set specific, measurable and meaningful targets.	Use NP to set targets for dietary change.
MULTI-SECTORAL: Ensure that all elements of the food and drink chain, including wider environmental and health interests, are involved in driving policy forward.	
ACTION PLANS: Establish national policy and action plans, firmly based on the national situation, which have a clear timetable for implementation and that are adequately funded.	Incorporate targets defined using NP within national action plans.
FOOD-BASED DIETARY GUIDELINES: Develop food-based dietary guidelines and food safety guidelines, aimed at the general population and at vulnerable groups (especially infants and young children, pregnant women, and the elderly), that take account of cultural and religious sensitivities and the price and availability of foods.	Use NP to define and describe food within the guidelines.
FOOD-BASED DIETARY GUIDELINES: Food based dietary guidelines should be used as the basis for communication campaigns and should set the direction for supply-side actions.	Use NP in drawing up food based dietary guidelines and to define the priorities for the communication campaigns.
EVALUATING IMPACT: Evaluate the impact of programmes and policies aimed at reducing the burden of food and nutrition-related diseases using health impact assessment methods.	Incorporate NP into health impact assessment methods (impact of programmes or policies on consumption of healthy or unhealthy foods).
ESTABLISH INDICATORS: Establishing input, process and output indicators in different socioeconomic population groups.	Use NP in the setting of indicators.
COST-EFFECTIVENESS: Calculate the cost-effectiveness of interventions.	
MONITOR THE FOOD ENVIRONMENT: Characteristics of the food environment, including nutritional quality, prices of foods and marketing practices, should be independently monitored.	Use NP to monitor the nutritional quality of the food environment.
NUTRITIONAL SURVEILLANCE: Establish national and international surveillance systems on nutritional status, food availability and consumption, and physical activity patterns in different age and socioeconomic groups, including early childhood.	Use NP to monitor nutritional quality of foods that are available and/or are consumed.
POLITICAL LEADERSHIP: High-level political will and leadership and whole-government commitment are required to achieve mobilization and synergies across different sectors.	
HEALTH IMPACT ASSESSMENT: Impact on public health objectives should have priority consideration when developing economic policy, as well as policies in the areas of trade, agriculture, transport, industry and urban planning.	Incorporate NP into health impact assessment methodologies to be applied to other policy areas.
LIMITING COMMERCIAL INTERESTS: Establish mechanisms that limit the influence of commercial interests in policy making. Unhealthy commodity	Use NP to define and describe commercial interests and identify companies (' <i>unhealthy commodity industries</i> ') to be excluded from policy formulation

industries should have no place in the formulation of national or international policy concerning non-communicable diseases.	process.
LIMITING POLITICAL FUNDING: Political donations from food companies should be restricted or banned.	
POLICY PRIORITIES: Protect and promote health and sustainable food security as over-riding priorities in food policy development.	Use NP to ensure that food policy development is going in the right direction, consistent with health objectives.
MONITORING & ACCOUNTABILITY: Policies and practices of the other parties should be monitored. Civil society should hold these parties to account for their actions, inactions, or counteractions in relation to promotion of healthier environments and reduction of obesity and chronic disease.	Civil society can use NP as a tool for monitoring policies and practices, and thus holding government, industry and public services to account.
MULTI-SECTORAL MECHANISM: Establish a high-level national multisectoral mechanism for planning, guiding, monitoring and evaluating enactment of the national policy with the effective involvement of sectors outside health.	NP a valuable tool for a national multi-sectoral mechanism to use in planning, monitoring and evaluating national policy.
NCD POLICY FRAMEWORK: Establish/strengthen a multisectoral NCD policy framework as an integral part of the broader national development agenda with special attention to social determinants of health and the health needs of vulnerable populations.	
INFLUENCING INDUSTRY: Place direct pressure on industry to change, and to raise public awareness of the unhealthy effects of these industries.	Use NP to assess companies' product portfolios, to evaluate and rate their commitment to change and raise awareness among both consumers and investors of companies' progress (or lack of it).
INDEPENDENT MONITORING: All approaches in the prevention and control of non-communicable diseases, be they self-regulatory, public-private partnerships or legislative, pricing and other regulatory measures must be independently and objectively monitored. Government actions and policies could be monitored by a separate agency, such as a parliamentary scrutiny committee or an 'obesity observatory'.	NP can be used as part of the monitoring and evaluation of measures.
CROSS-GOVERNMENT COORDINATION: There is a need for centralised coordination of government action to ensure cross-departmental, cross-sectoral policies can be implemented.	
SUPPORT INTERNATIONAL ACTION: National government should support international moves to ensure all UN agencies have policies that are consistent with promoting public health nutrition.	
HEALTH IMPACT ASSESSMENT: Impose requirement on Ministers to consider health issues when formulating policy.	Incorporate NP into health impact assessment methodology.
HEALTH SERVICES	
PRIMARY CARE: Ensure that nutrition and healthy eating are priorities in people-	Use NP as a tool for nutrition counselling.

centred health and social care systems, including brief interventions and nutrition counselling in primary health care settings.	
<p>PREVENTION, DIAGNOSIS AND TREATMENT: Improve standards of service delivery for the prevention, diagnosis and treatment of nutrition-related diseases, by:</p> <ul style="list-style-type: none"> • establishing efficient outpatient and inpatient nutrition services with adequate population coverage; • adopting and applying evidence-based guidelines on screening and treatment; • integrating nutrition support in the treatment protocols of different diseases; • revising the curricula of health staff; • establishing and enforcing accreditation schemes for health practitioners involved in the diagnosis and treatment of nutrition-related diseases; • supporting the provision of foods for special dietary use; • providing dietary supplements (e.g. iron and folate in pregnancy) according to national needs and circumstances; • establishing clearance systems for the commercialization of dietary supplements. 	Use NP to guide patient nutrition services.
<p>NUTRITIONAL STATUS MONITORING: Regular monitoring by health professionals of bone density and micronutrient and macronutrient deficiencies/ Specify actions to improve nutritional status within health authority partnerships/ Establish nutritional assessment and intervention procedures in the most relevant settings for different age groups (e.g., children, elderly), including in primary health care and home care services.</p>	
OTHERS	
<p>WORKPLACE: Use fiscal levers to make all organisations/institutions take some responsibility for the health of their employees (public and private sectors).</p>	
<p>TECHNOLOGY: Invest in technology to support informed individual choice, including devices to help monitor diet and activity.</p>	<p>Develop nutrient profiling tools to help individuals make healthy choices.</p> <p>Mobile phone apps exist to give traffic light ratings for the nutritional content of food products. FoodSwitch for example, is an app that has been developed in Australia. Consumers scan the barcode on foods and the app displays a traffic light system along with a list of similar, but healthier, foods.</p>