

## Food and Health



The Scottish Government has set out its ambition that Scotland becomes a Good Food Nation, a country where people from every walk of life take pride and pleasure in, and benefit from, the food they buy, serve, and eat day by day. To deliver this vision the government will launch a consultation on a Good Food Nation Bill during 2017. As part of this process, it has committed to drawing on the expertise of civic society to develop and implement its good food policy.

This discussion paper has been produced by **Obesity Action Scotland in consultation with Professor Annie Anderson and Diabetes Scotland** as part of our work with the Scottish Food Coalition. We believe the Good Food Nation Bill has the potential to deliver real change in the food system; one that delivers high levels of well-being, social justice and environmental stewardship now and for future generations. This discussion paper focuses on **health effects of food, policies likely to improve health through food in Scotland** and how it can contribute to the delivery of a just transition to a better food system. Following on from the Scottish Food Coalition's publication, [\*Plenty: Food Farming and Health in a New Scotland\*](#), this is one of a series of discussion papers which explores cross-cutting issues relating to food, forming part of the Scottish Food Coalition's contribution to a national Good Food Conversation.

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### Where are we now?

*'The food system is an interconnected network of producers, industry, and institutions. But at its heart is the individual. Policy can affect all parts of the network, influencing a cultural shift towards healthier food preferences.'* Hawkes et al. (2015)

Food impacts human health, environment, ecology, economy, society and culture. These impacts are linked; policies in one area are likely to influence other areas. The position is urgent. Diet in Scotland overall is poor, health linked to food consumption is poor, and there are low levels of public awareness and commitment to change. There is a need for a whole-government approach with policies across sectors.

Scottish land, waters and resources combined with a reviving food culture and cutting edge research have the potential to make the Scottish diet one of the healthiest in the world. Unfortunately, this is not currently the case. In Scotland, diets are shaped on the one hand by eating too little nutritious food, such as fruit and vegetables, oil-rich fish, nuts and seeds, and high-fibre carbohydrates, and on the other by eating too much fat, sugar and salt with the outcome being an overconsumption of energy and less nutritious food (Food Standards Scotland, 2015a; GBD Risk Factor Collaborators, 2016). This surplus energy is coming primarily from heavily promoted, discretionary foods which have very little nutritional value and which are not required for health, such as confectionery, cakes, biscuits, pastries, savoury snacks and sugary drinks. These foods, historically considered as treats, are now eaten frequently (multiple times/day) as snacks. A further compounding issue is that 75% of Scottish adults do not recognise the problem believing their diets to be healthy (Food Standards Scotland, 2015b).

This poor national diet causes serious health problems with the primary consequence being weight gain. Obesity rates in Scotland are amongst the highest in the world and it is now a serious public health threat. One in every four adults (29%) and almost one in six children (15%) are obese; while two in every three adults in Scotland (65%) are overweight (Scottish Government, 2016). Obesity harms many aspects of health, and interferes with sexual function, breathing, mood and social interactions while also increasing the risk of type 2 diabetes, heart disease, stroke, and eleven types of cancers.

Our diet is one of the most direct ways in which our health is influenced by the environments in which we live. In the short-term, diet can affect energy levels, immunity, digestion or wellbeing; in the medium term it can influence dental health, metabolic health or body weight; and in the long term, it can determine length and quality of life as well as the health of future generations through the effects on genes (nutrient-gene interactions), and maternal diet pre-conception (Boersma et al., 2014). Underpinned by a strong evidence base, national dietary recommendations (such as the Scottish Dietary Goals (Scottish Government, 2016b) or the Eatwell Guide (Public Health England, 2016)) have been designed to promote health and minimise disease risks in the general population. If followed, the resulting healthy diet is a very powerful way of preventing many chronic diseases such as cancer, diabetes and cardiovascular disease with benefits continuing throughout our lifespan and contributing to improved quality of life. Sadly, over the last 15 years most of the Scottish Dietary Goals have been consistently missed. The result is premature illness and death with the Cabinet Office estimating in 2008 that 70,000 fewer people in the UK would die prematurely each year if diets matched the recommended dietary guidelines (Cabinet Office, 2008). Without increasing current public health efforts to tackle poor diet, physical inactivity, and related smoking and alcohol consumption (Scarborough et al, 2016), the UK will not reach the challenging targets set by the WHO to reduce by 25% premature mortality from non-communicable diseases by 2025 (World Health Organization, 2013). There are some policies and initiatives in place both in Scotland and the UK but we need more and we need to properly implement and evaluate the impact of existing ones.

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## What are others doing well?

International best practice examples include 'double-duty' actions that have the potential to impact undernutrition, non-communicable diseases, overweight and obesity at the same time (WCRF International and NCD Alliance, 2016). Two recent country examples are:

- *Dietary Guidelines for the Brazilian Population, 2<sup>nd</sup> Edition 2014* – were shaped through a public consultation process; they are food-based (as opposed to nutrient-based) and include numerous examples of healthy foods and meals. The guidelines provide ten practical steps and one golden rule for healthy diet, recommending minimally processed foods, pointing to healthy foods, stressing cooking skills, eating habits, food culture, eating out of home, and advertising and marketing of food and drinks (Ministry of Health of Brazil, 2014).

- *New Nordic Food* programme started in 2004. It was developed from the defining New Nordic Food Manifesto by chefs, farmers, food producers, politicians, home economics teachers, food scientists and consumers (Nordic Council of Ministers, 2004). It is now coordinated by the Nordic Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry who were responsible for putting it in on the political agenda. The programme aims to counter the global junk and fast food culture, and promote health, cultural integrity, diversity and sustainability of the planet.

In addition to these innovative country specific initiatives, there are increasing global calls to link diet and sustainability with respected organisations such as the UN Food and Agriculture Organisations (FAO) and the World Wildlife Fund (WWF) arguing that efforts to improve the healthfulness of our diets should also be linked to efforts to improve the sustainability of our food system (FAO, 2016) and that it is important for dietary discussions, initiatives and policies to acknowledge the United Nations' 2030 Sustainable Development Goals (United Nations, 2015) and build on the Paris Climate Summit (European Commission, 2015).

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## What do we want?

In short, we want a healthy food environment in Scotland that enables and promotes the consumption of a healthy diet. We need to create a food system where a healthy diet is affordable and sustainable. Such changes to our food environment can only be achieved through transforming culture and expectations, supported by a package of measures targeting the whole population (Kleinert *et al.*, 2015).

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## How do we get there?

Supported by evidence, the most important measures which could have the desired affects are:

- **Reformulation** of foods to reduce sugar, salt and fat (Obesity Action Scotland, 2016a)
- Restricting **advertising and marketing** of high fat, sugar and salt foods (Obesity Action Scotland, 2016b)
- Rebalancing retail **price promotions** of foods and drinks towards healthier products (Obesity Action Scotland 2016c)#
- **Taxing unhealthy food** and **subsidising healthy food** between 10 to 15% to increase availability and/or affordability, as there is evidence that both together influence dietary behaviour (Niebylski *et al.*, 2015)
- Reducing current **portion sizes** (Obesity Action Scotland, 2016d)
- Improving nutrition **labelling** on food and drinks to make labels more consumer-friendly (Obesity Action Scotland, 2016e)
- New **national dietary guidelines**, shaped by public consultation and featuring environmental sustainability, favouring regional and seasonal products, minimally processed foods, resource-saving housekeeping and enjoyable eating culture (von Koerber *et al.*, 2016). The guidelines should be used to support food and nutrition education actions, programmes and policies in Scotland and complement efforts to make our food system more sustainable.
- New standards for **public food procurement** which prioritises sustainably sourced and

healthy food. These standards should be accompanied by supporting education programmes and could be supported by pricing policies (Campbell *et al.*, 2014). Implementation of healthy food procurement policies in schools, worksites, hospitals, care homes, correctional facilities, government institutions, and remote communities have been shown to increase markers of healthy eating (Niebylski *et al.*, 2014)

- Continual improvement and implementation and monitoring of **food standards in schools**, or ‘whole school food plans’ to connect the curriculum with a healthy and valued food culture through catering and the community, link schools with local farms and embed food and nutrition into teacher education and ensure sustainability (Scottish Food Coalition, 2016)
- Support for **community food initiatives**, helping to provide access to resources such as land, as well as training and development opportunities (Scottish Food Coalition, 2016). Such support is also backed by recommendation 6 from a recent report on household income insecurity in Scotland (Johnstone *et al.*, 2016; Dowler, 2016)
- Reductions in the unnecessary use of **antimicrobials** in agriculture. Some micro-organisms have developed resistance to the strongest antibiotics we have. The routine overuse of antibiotics in farm animals contributed to this crisis (Alliance to Save our Antibiotics, 2011)
- Implementation of the actions recommended by the Food Standards Scotland Board Paper in January 2016 (FSS, 2016) and development of comprehensive and bold **Scottish Government policy to address diet and obesity** whilst also achieving sustained economic growth and reducing the burden on public services.
- Strengthening of the unexploited **role of the public and civic society** in demanding policies for improving the national diet and healthy food environments, and challenging reactions against the implementation of such policies (Huang *et al.*, 2015). Adopting, and integrating, such a bottom-up approach could be achieved by the refinement and streamlining of good quality public information, strengthening of media advocacy, building of citizen support and engagement, and development of a more receptive political environment (Huang *et al.*, 2015). This could be supported through better cross sector and organisational alliances which could engage and mobilise the public to reduce overconsumption, overweight and obesity and help build better wellbeing and health.

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## How do we measure progress?

Building on calls from the NCD Alliance, WCRF International and the Lancet Series on Obesity to develop robust accountability mechanisms that involve civic society (Swinburn *et al.*, 2015; WCRF International and NCD Alliance, 2016), a strengthening of accountability systems across all actors is urgently required to create healthy food environments. Statutory requirements that record and measure progress in health, fairness and wellbeing improvements in society could define and monitor progress in many of the areas relating to health, food and farming, including private sector performance:

- The **obesity indicators** (Scottish Government, 2015) that are used to monitor progress of the Obesity Route Map: adult and children BMI, prevalence of type 2 diabetes, diet quality (fruit and vegetable intake, added sugars, total and saturated fat, overall calorie intake among both children and adults), volume of sales of unhealthy food, and Healthy Living Awards

- Indicators and reporting mechanisms that are suggested in the Global Nutrition Report (International Food Policy Research Institute, 2016): **Health Data Collaborative (2016) 100 core health indicators** (World Health Organization, 2015), of which 12 are nutrition outcomes would ensure that Scotland is comparable on a global scale
- While we currently monitor **BMI of Scottish children** at Primary 1 (Information Services Division Scotland, 2016), we should also monitor it at the end of primary school (Primary 7) (equivalent to the English system)
- The International Network for Food and Obesity/Non-communicable Diseases Research, Monitoring and Action Support (**INFORMAS**) have developed the **healthy food environment policy index** (Swinburn *et al.*, 2013; Vandevijvere *et al.*, 2015) to assess the extent of government policy implementation on food environments in comparison with international best practice

## About the Scottish Food Coalition

We are a civil society coalition working on food in Scotland. We are made up of established organisations working on the environment, poverty, health, workers' rights, food production and animal welfare. We have come together in recognition that the problems in our current food system are interconnected and cannot be changed by focusing on a single issue.

We are calling for a just transition to a better food system.

This coalition wants to see a vibrant and thriving food sector and food culture that puts people and the natural environment at its heart. We believe a successful food system is one that delivers high levels of well-being, social justice and environmental stewardship now and for future generations, in Scotland and abroad.

## REFERENCES

- Alliance to Save Our Antibiotics (2011). *Case study of a health crisis. How human health is under threat from over-use of antibiotics in intensive livestock farming. A report for the Alliance to Save Our Antibiotics*. Godalming: An Alliance to Save our Antibiotics.
- Boersma, G.J., Bale, T.J., Casanello, P., et al. (2014). Long-term impact of early life events on physiology and behaviour. *Journal of Neuroendocrinology*, 26(9), pp. 587-602.
- Cabinet Office. The Strategy Unit (2008). *Food: an analysis of the issues*. London: Cabinet Office.
- Campbell, N., Duhaney, T., Arango, M., et al. (2014). Healthy food procurement policy: an important intervention to aid the reduction in chronic noncommunicable diseases. *The Canadian Journal of Cardiology*, 30(11), pp. 1456-1459.
- Douglas, F., Ourega-Zoe, E., Garcia, A., et al. (2015). *The nature and extent of food poverty/insecurity in Scotland*. Edinburgh: NHS Health Scotland.
- Dowler, E.A. (2016). 'Just food': contemporary challenges for richer countries. In *Food futures: ethics, science and culture* (pp. 1-14). Wageningen Academic Publishers.
- European Commission (2015). *Energy Union Package. The Paris Protocol – A blueprint for tackling global climate change beyond 2020. SWD(2015) 17 final*. Brussels: European Commission.
- FAO (2016) *Dietary guidelines and sustainability*. Available at: <http://www.fao.org/nutrition/education/food-dietary-guidelines/background/sustainable-dietary-guidelines/en/> (Accessed: 21 November 2016).
- Food Standards Scotland (2015a). *Situation Report: The Scottish Diet: It Needs to Change*. Aberdeen: Food Standards Scotland (FSS).
- Food Standards Scotland (2015b). *Attitudes to Diet and Health in Scotland 2015*. Aberdeen: Food Standards Scotland.
- Food Standards Scotland (2016). *Diet and Nutrition: Proposals for setting the direction for the Scottish Diet*. Food Standards Scotland Board Paper, 20<sup>th</sup> Jan 2016 (<http://www.foodstandards.gov.scot/fss-board-meeting-20-january-2016> ; last accessed: 24/11/16)
- GBD 2013 Risk Factors Collaborators (2016). *Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015*. *The Lancet*, 388, pp. 1659-1724.
- Hawkes, C., Smith, T.G., Jewell, J. et al. (2015). *Smart food policies for obesity prevention*. *The Lancet*, 385, pp. 2410-2421.
- Huang, T.T.K., Cawley, J., Ashe, M., Costa, S.A., et al. (2015). Mobilisation of public support for policy actions to prevent obesity. *The Lancet*, 385, pp. 2242-2231.
- Information Services Division Scotland (2016). *Primary 1 Body Mass Index (BMI) statistics Scotland - School Year 2014/15*. Information Services Division.
- International Food Policy Research Institute (2016). *Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030*. Washington, DC.
- Johnstone, M. and the Scottish Working Group on Food Poverty (2016). *Dignity: Ending Hunger Together in Scotland. The Report of the Independent Working Group on Food Poverty*, (<http://www.gov.scot/Resource/0050/00502395.pdf> ; Last accessed: 22/11/16)
- Kleinert, S. and Horton, R. (2015). Rethinking and reframing obesity. *Lancet*, 385, pp. 2326-2328.
- Ministry of Health of Brazil (2014). *Dietary Guidelines for the Brazilian Population*. 2nd Edition. Translated by Carlos Augusto Monteiro. Brasília: Ministry of Health of Brazil.
- Niebylski M.L., Lu, T., Campbell, N.R., et al. (2014). *Healthy food procurement policies and their impact*. *International Journal of Environmental Research and Public Health*, 11(3), pp. 2608-2627.
- Niebylski, M.L., Redburn, K.A., Duhaney T., Campbell, N.R. (2015). *Healthy food subsidies and unhealthy food taxation: A systematic review of the evidence*. *Nutrition*, 31(6), pp. 787-795.
- Nordic Council of Ministers (2004). <http://www.norden.org/en/theme/ny-nordisk-mad>
- Obesity Action Scotland (2016a). *Obesity and Reformulation Briefing*. Glasgow: Obesity Action Scotland.
- Obesity Action Scotland (2016b). *Advertising, Marketing and Obesity Briefing*. Glasgow: Obesity Action Scotland.
- Obesity Action Scotland (2016c). *Obesity and Price Promotions Briefing*. Glasgow: Obesity Action Scotland.
- Obesity Action Scotland (2016d). *Obesity and Portion Size Briefing*. Glasgow: Obesity Action Scotland.
- Obesity Action Scotland (2016e). *Obesity and Labelling Briefing*. Glasgow: Obesity Action Scotland.
- Public Health England (2016). *Eatwell Guide*. London, Public Health England.
- Scarborough, P., Cowburn, G., Cobiac, L., et al. (2016). *Translating the World Health Organization 25x25 goals into a United Kingdom context: The PROMISE study*. London: Richmond Group.

- Scottish Food Coalition (2016). *Plenty: Food, Farming and Health in a New Scotland*. Edinburgh: Scottish Food Coalition.
- Scottish Government (2015). *Obesity Indicators*. Edinburgh: Scottish Government.
- Scottish Government (2016a). *Scottish Health Survey 2015 Edition. Volume 1. Main Report*. Edinburgh: Scottish Government.
- Scottish Government (2016b). *Revised Dietary Goals for Scotland*. Edinburgh: Scottish Government.
- Swinburn, B., Sacks, G., Vandevijvere, S., et al. (2013). INFORMAS (International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support): overview and key principles. *Obesity Reviews*, 14(S1), pp. 1–164.
- Swinburn, B., Kraak, V., Rutter, H., et al. (2015). Strengthening of accountability systems to create healthy food environments and reduce global obesity. *The Lancet*, 385, pp. 2534-2545.
- United Nations (2015). Transforming Our World: The 2030 Agenda for Sustainable Development A/RES/70/1.
- Vandevijvere, S., Dominick, C., Devi, A., et al. (2015). The healthy food environment policy index: findings of an expert panel in New Zealand. *Bulletin of the World Health Organization*, 1, 93(5), pp. 294-302.
- von Koerber, K., Bader, N., Leitzmann, C., (2016). Wholesome Nutrition: an example for a sustainable diet. *Proceeding of the Nutrition Society*, Aug 9, 1-8 [Epub ahead of print]
- World Cancer Research Fund International (WCRF) and NCD Alliance, (2016). *Ambitious, SMART commitments to address NCDs, overweight and obesity*. London: WCRF International and NCS Alliance.
- World Health Organization (2013). *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*. Geneva: World Health Organization.
- World Health Organization (2015). *Global Reference List of 100 Core Health Indicators*. Luxembourg: World Health Organization.