



Tackling Unsustainable Diets: the case is made and it's time for action

A Discussion Paper by the Faculty of Public Health Sustainable Diet Working Group

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Executive Summary

The current food system – the way our food is produced, processed, sold, consumed, and wasted – is not fit for purpose. The case for change to a more sustainable diet has been made across global and UK-based organisations. The Sustainable Diet Working Group (SDWG) has been formed within the Faculty of Public Health to bring together experts in food policy, sustainability, and population health with the sole focus of promoting action to bring about a substantial shift in what we eat in the UK, one that will make our food system more sustainable and healthier. The aim of this paper is to set out the current situation and to begin the process of identifying what actions are necessary.

In the midst of a climate emergency, it's widely accepted that especially meat-heavy diets and food production are major contributing drivers of climate change. Food is also a major driver of inequalities in life expectancy and poor health; it is a central hub connecting spokes of the current health, environment, and poverty crises. There are significant gains on multiple fronts to be made by a transition to sustainable diets – with emphasis on what types of food we eat, and on how this food is produced, consumed and wasted. The case has been made clear, but the transition to significant and meaningful action has not yet happened.

We identify a number of blockages and lock-ins that need to be addressed.

- 1) The tensions inherent in competing priorities.** The urgent need to improve sustainability within the food system must be pursued alongside, but not behind, other key priorities of food insecurity, economic resilience. Areas of agreement should be pursued even before other areas of difference are yet to be resolved.
- 2) Complexity in the definition and understanding which shifts will make the greatest impact.** The UK needs a unified definition and clear set of metrics against which the sustainability of UK food can be measured.
- 3) Complexity in drivers of food choice, limits of individual choice and aversion to policy level intervention.** Policies and interventions need to be designed across a range of approaches, and must be well-coordinated so they work synergistically rather than compete with one another.
- 4) Multi-level leadership and collaborative approaches.** Collaborative approaches and shared thinking between those with expertise and experience in food policy must be supported at all levels through collegiate cross-sector roundtable events and working groups, easily accessed pots of funding for local initiatives, and by a national Food Bill to statutory require a connected and monitored food strategy across all parts of the system.

As one of its three key recommendations in the 2022 policy position statement on food, the Faculty called for:

“A strategic plan for how to shift our population to a healthier and more sustainable dietary pattern, to include a clear definition of what a healthy, sustainable diet means, and policy drivers across all levels of government to support this shift.”¹

We support this recommendation, and adopt it as the central aim for the Sustainable Diet Working Group.



Rationale and aim

The current food system – the way our food is produced, processed, sold, consumed, and wasted – is not fit for purpose. In a direct sense, the food we eat as a population does not support good health: food-related illness is a leading cause of morbidity and early mortality in the UK². Indirectly, our food system has a myriad of harmful impacts on the environment – greenhouse gas emissions, air pollution, water pollution, water scarcity, antimicrobial resistance, biodiversity loss – which in turn are harmful to human populations^{3 4}. Further, both the direct and indirect impacts of the food system on health are not equally distributed and they continue to widen the inequalities in our society⁵. It therefore stands to reason that if we are to ensure our food supports a healthy population, it is essential to consider not only the nutritive value of the food we eat, but also how we produce, process, sell and dispose of this food.

The case for change to a more sustainable diet has been made across global and UK-based organisations. There are calls for shifts in population dietary patterns that will provide co-benefits to support better human and planetary health both directly through what we eat, and also indirectly through how this food is made. While it is clear that urgent action is needed to shift our population diet in a more sustainable direction, policymakers have not yet provided a clear response to the problem. Political uncertainties and ministerial ‘churn’ have not helped but the case for policy clarity has grown rather than diminished in the meantime.

The Sustainable Diet Working Group (SDWG) has been formed within the Faculty of Public Health¹ to bring together experts in food policy, sustainability, and population health with the sole focus of promoting action to bring about a substantial shift in what we eat in the UK, one that will make our food system more sustainable and healthier. The SDWG has not been set up to repeat calls made by others but to ask what can and should be done now to prioritise the UK’s transition to more sustainable diets.

This briefing paper is a first in a series from the SDWG. It is intended primarily for public health professionals and policy makers at all levels of government but is also directed at others who have influence over or interest in any part of the food system.

The aim of this paper is to set out the current situation and to begin the process of identifying what actions are necessary. It briefly defines the problem and establish that the case for change has already been made, and identifies some key obstacles to change along with their potential solutions. Finally, the paper sets out a series of recommendations for the SDWG’s next steps as a working group.

The UK Food System in Context

In the late 18th and 19th centuries, as industrial economies emerged, questions of sufficiency surfaced – is there and can there be enough to feed people? The crisis posed by this Malthusian question was staved off by a mix of many factors. In the case of the UK, a significant shift was to use its Empire to feed its growing population and, along with other nations, to pursue revolutions in land management, technology and the agri-food economy.⁶ Rising wealth and urbanization enabled consumer purchasing power to incentivize production. And throughout the 20th century, new models of production, processing and distribution made food more affordable for hundreds of millions of people, a process which accelerated in the post-World War II global focus on food production.⁷ The

¹ The FPH is a joint faculty of the Royal Colleges of Physicians of the UK (London, Edinburgh and Glasgow).
<https://www.fph.org.uk/about-fph/fph-governance-and-strategy/>



fear of hunger appeared to be assuaged particularly through technical innovation, but was also underpinned by a new post-war focus on food as a right in line with the 1948 UN Declaration of Human Rights. For a few decades, progress was being made. Hunger declined as a proportion of total population through to the start of the 21st Century, only for concerns to rise with evidence of problems caused in part by the agri-food revolutions, such as biodiversity loss, climate change emissions and land use change.

This awareness has renewed public health and public policy attention on food as an illustration of new complex, multi-factoral, multi-sectoral problems. Food and health policy is no longer a matter for farming alone or simply producing more affordable food. Off-land industries can be very powerful in shaping diet, and thus health. They can also drive food's environmental impacts (and their resolution) through contracts and specifications. British consumers, for example, rely on a limited number of food retailers that control supply chains. Nine retailers provide 95% of all retail food in Great Britain, and provide an exceptionally wide variety of low cost, energy dense, ultra-processed foods^{8,9}. The UK population consumes just over half (51%) of its diet in the form of these products,¹⁰ a proportion that increases to 64% of the food children eat at school.¹¹ Any health strategy to tackle diet-related illhealth must therefore be clear about the limits as well as the potential of such powerful enterprises to help reshape public health.

Note on Food Insecurity and the Cost-of-Living Crisis

Despite the wide variety and availability of food, the level of household food insecurity in the UK is on the rise and expected to grow more rapidly with the current rate of food price inflation and its particular impact on the cost of most basic items. These are the highest rises in food prices experienced in the UK since 1977¹² Inflation rates for food (and non-alcoholic beverages) is second only to housing costs (housing, water and energy bills) in terms of the rate of inflation. This rapid increase in cost of living may have led to more attention on food system dynamics, but instead most policy concern and intervention has focused on energy rather than food¹³. We challenge this bias. Although energy and food markets are linked, their manifestation and impacts differ.

Household food insecurity is an important public health issue. The shops may be full, but that does not mean all households are well fed. Food insecurity is associated with a range of poor physical and mental health outcomes, as well as delayed development and reduced academic achievement in children¹⁴⁻¹⁶. These impacts are in part to the stress food insecurity creates, but also to its negative impact on dietary quality¹⁷. The Food Foundation calculates "the poorest fifth of UK households would need to spend 47% of their disposable income on food to meet the cost of the Government-recommended healthy diet. This compares to just 11% for the richest fifth."¹⁸

We also challenge the primary importance of maintaining low prices for all food. The public health goal should be to reduce consumption of both environmentally unsustainable and unhealthy food products; keeping these foods as low cost as possible doesn't support this goal. Instead, policies that make harmful foods more affordable for people without sufficient income to afford healthier and more sustainable diets are at best short-sighted, and, with a more cynical lens, represent an unjust and ethically indefensible position.

We know that people living in the most deprived areas are at a much higher risk of health issues linked to unhealthy diet⁵; and we know the impacts of climate change will have a greater and more negative impact on this same group of people^{19,20}. So when the full range of externalities related to poor health and environmental damage are taken into consideration, we see the cost of harmful foods fall disproportionately to those at the low end of the socioeconomic spectrum.



Instead, we support policy aimed at reducing consumption of foods that are unhealthy and damaging to the environment, and at improving the affordability of healthier and more sustainable foods. These policies would be progressive in the balance of benefits they would bring to the health and wellbeing of the whole population.

Defining the problem

Fundamentally, the transition to sustainable diets raises questions about the present state of market economies and food's role in both the political economy and culture. Demand and supply are inextricably linked and together determine what consumers eat (and waste), which ultimately shapes food's total impact on the environment and on health. This impact has been well researched and documented and describes a food system that is taking an unnecessary toll on the natural resources needed for good human health.

In the midst of a climate emergency, it's widely accepted that especially meat-heavy diets and food production are major contributing drivers of climate change.^{21 22} The food system contributes 33-35% of anthropomorphic greenhouse gas emissions (GHGE)^{23 24}. The UK Committee on Climate Change has called for a 20% reduction in meat and dairy by 2030, and a 35% reduction for meat by 2050. This goal reflects the need for broad shifts in dietary patterns towards a more plant-based diet at a population scale; any production-based adaptations are unlikely to be sufficient.²⁵ Shifts in diet have potential to reduce emissions by up to 80% by 2050, while estimates for reductions from farm-based mitigation techniques are approximately 10%.²⁶ These same shifts in diet also have potential to improve the health of our population^{27 28}.

Supermarkets have set themselves a goal of Net Zero by 2040, which is meant to include both their direct and indirect carbon-emissions, which will require a carbon footprint reduction across their supply chains²⁹. In order for supermarkets to reach these goals, people will need to eat differently³⁰.

Negative impacts of the food system go beyond greenhouse gas emissions.

- Agriculture demands 70% of our freshwater use, 40% of arable land use, creates 32% of acidification, and 78% of eutrophication in our waters, and threatens 86% of known species.^{23 24 31 32}
- In the UK, industrial farming is responsible for nearly 90% of ammonia in our air³³; a key component of small particulate air pollution responsible for approximately 60,000 deaths annually in the UK³⁴. Globally, food system emissions are responsible for 22% of mortality due to poor air quality⁴.
- The use of antibiotics in farming of food animals contributes to global burden of antimicrobial resistance³⁵, and an estimated 66% of our antimicrobials are used on livestock animals³⁶. Globally in 2019 there were nearly 1.3 million deaths attributed to antimicrobial resistance³⁷.

Here is a core position for the Faculty and this Working Group to take. The UK's national diet must change as a population in order to reduce these negative impacts.

The case for change has already been made

Advocates of the current food system tend to argue that its fundamental characteristics are sound or perhaps that there are only minor blemishes. They argue there's plenty of food, unprecedented choice, and (until the current inflation of food prices) at historically low prices. However, these assessments are now widely questioned in the face of the multiple health and environmental crises associated with the current food system.



That food is now a major drag on the UK economy, healthcare and social cohesion is well supported by evidence from academics, civil society and Parliament.^{18 38-40} Internationally, there is much research showing how food is a major driver of inequalities in life expectancy and environmental stress.^{24 26} Food is a central hub connecting spokes of the current health, environment, and poverty crises.

The good news is that there are significant gains on all these fronts to be made by a transition to sustainable diets – with emphasis on what types of food we eat, and on how this food is produced, consumed and wasted.³ There is an abundance of rational, evidence-based calls to reshape the UK (and Western) patterns of food consumption in order to bring them into better alignment with planetary carrying capacities, more just social distribution, and better population health (see Tables 1 and 2). Global organizations, along with UK scientists and civil society bodies, have played significant roles in articulating necessary changes in what people eat and how food is produced and wasted.⁴¹

Others have stressed the challenge of affordability,^{18 42} and health inequalities.⁴³ Still others have urged systemic change to address matters such as water use,⁴⁴ soil,^{45 46} labour,⁴⁷ and food waste amidst hunger.⁴⁸

The case has been made clear, but the transition to significant and meaningful action has not yet happened.

Table 1 Examples of International calls for transition to Sustainable Diets

Starting concern	Date	Report	Organisation	What it called for
Climate	2022	IPCC ‘Climate Change 2022 Mitigation’ Working Group III report ⁴⁹	International Panel on Climate Change	Shifting “to balanced, healthy, sustainable diets and avoidance of waste” (p39)
Biodiversity	2020	‘Bending the curve’ ⁵⁰	WWF International	Dietary change to alter currently harmful trends
Water	2019	Water Footprint of Diets: A Global Systematic Review and Meta-analysis ⁵¹	Water and health	Shift to healthier diets to reduce water use
Health impacts of food production and consumption	2019	‘Sustainable Healthy Diets: Guiding Principles’ ⁵²	WHO and FAO	“..to support the efforts of countries as they work to transform food systems to deliver on sustainable healthy diets” p6
Planetary Boundaries - Health, environment, and society	2019	‘Food in the Anthropocene’ report ³	EAT-Lancet Commission	Dietary pattern changes and national initiatives to support sustainable food system.
Obesity, undernutrition & climate change	2020	‘Global Syndemic of Obesity, Undernutrition, and Climate Change’ report ⁵³	EAT- Lancet Commission	Better strategic interventions to shift population diet to healthier and more sustainable pattern.
Co-benefits of healthy and sustainable diets	2015	Milan Urban Food Policy Pact ⁵⁴		City governments to focus on delivering sustainable diets.

Source: authors



Table 2 - UK examples of calls for Transition to Sustainable Diets

Starting concern	Date	Report	Organisation	What it called for
Nutrition and Sustainability	2021	Environmentally Sustainable Diet ⁵⁵	British Dietetic Association	Dietary guidelines that incorporate sustainability considerations.
Consumer advocacy	2021	Supporting Consumers in the transition to Net Zero	Which?	“...most people understand the urgent need to act to tackle climate change and many people are already taking action to be more sustainable. However...there’s a mismatch between what most people think will have the most impact and the changes experts think are most needed. People are looking to government to do much more to support them.”
Local areas food system change	2022	Food Cities 2022 declaration ⁵⁶	Birmingham City led coalition of cities	Birmingham City led creation of a new coalition of cities to support sustainable diets locally.
Meat and Dairy: co-benefits to environment and health	2022	‘Better by Half’ roadmap ⁵⁷	Eating Better coalition (NGO)	Call for sustainable public sector meals for a 50% reduction in meat and dairy consumption in the UK by 2030, and for a transition to ‘better’ meat and dairy as standard.
Whole food system sustainability	2021	Building a Food System That Works For Everyone ⁵⁸	Institute for Public Policy Research (IPPR)	Support for healthy and sustainable diets including a 50 % reduction in meat and dairy consumption by 2030 and corresponding increase in proportion from high environmental and welfare standards.
Whole food system sustainability	2021	National Food Strategy Review: The Plan ⁵⁹	Independent Review	Support for move to healthy sustainable diets in the UK, including following SACN nutrition guidelines (fruit, veg, fibre, salt and sugar), and a 30% reduction in meat and dairy.
Climate	2022	Website Page: “What can we all do?”	Climate Change Commission (CCC)	“Eat a healthy diet, for example, with less beef, lamb, and dairy.”
Climate	2020	6 th Carbon Budget Report	Climate Change Commission (CCC)	Diet change. Our Balanced Pathway involves a 20% shift away from meat and dairy products by 2030, with a further 15% reduction of meat products by 2050. These are substituted with plant-based options. This is within range of the Climate Assembly’s recommendations for a 20-40% reduction in meat and dairy consumption by 2050. ¹⁸ (p.165)
Climate	2020	6 th Carbon Budget Report – Sector Summary: Agriculture and land use, land use change and forestry ⁶⁰	CCC	Modelling by Oxford University of Public Health’s Eatwell Guide estimate that meeting the Guide would require an average reduction in the consumption of meat by around 89% for beef, 66% for pork and 63% for lamb, and a 20% reduction in dairy products. (p.21)

Source: authors



Key System Barriers and Necessary Solutions

For reasons indicated above, this SDWG judges that more attention is needed on how to reduce whatever stops the transition to sustainable diets. We see a number of such blockages and lock-ins, and note the emergence of a literature identifying where they can be leveraged.^{61 62}

5) The tensions inherent in competing priorities.

Issue: The act of prioritising resources and actions is complex at the best of times; in times of crisis, it is tremendously difficult to maintain long-term, big picture priorities in the face of short-term, urgent needs. As just one example, the current cost-of-living pressures on households is a genuinely important priority that requires immediate action. But choices made to mitigate this crisis have potential for long-term impacts that will fuel the inter-related crises facing our environment, our food supply, and our health. It can also be the case that short-term crises are readily used as a false-flag for policy makers who are hesitant to change the status-quo⁶³.

Solution: The urgent need to improve sustainability within the food system must be pursued alongside, but not behind, other key priorities of food insecurity, economic resilience. Areas of agreement should be pursued where found (e.g., policies to reduce consumption of red and processed meat) even before other areas of difference are yet to be resolved.

6) Complexity in the definition and understanding which shifts will make the greatest impact.

Issue: Although there has been a standard definition of sustainable diet since the 2010 FAO-Biodiversity expert meeting,⁶⁴ there is some confusion about how the generality is translated in practice.⁶⁵ Currently there is no clear picture from government. Neither the 2021 Defra Food Security Report nor the 2022 (English) Government Food Strategy address some of the health and environmental challenges posed about consumption patterns by the 2021 final report of Henry Dimbleby's review.⁶⁶⁻⁶⁸

Solution: The UK needs a unified definition and clear set of metrics against which the sustainability of UK food can be measured.

7) Complexity in drivers of food choice, limits of individual choice and aversion to policy level intervention.

Issue: Current policy advice puts focus on individual responsibility for change – whether for health or the environment – or worse backs away from giving advice at all.⁶⁹ This ignores the fact that food choices and behaviour are shaped by a myriad of factors – taste, history, price, culture, availability, local environments, family, personal circumstances^{70 71}. These influences are at the level of each person individually (such as personal choice, individual budget, social situation), and at wider policy level (such as taxation, trading standards, advertising policy)^{72 73}. These complexities mean policy interventions directed at any one area of influence are easily offset or complicated by influences across the wide range of other influences.

Solution: In order to address the complexity of this issue, policies and interventions will need to be designed across a range of approaches, and must be well-coordinated so they work synergistically rather than compete with one another.

8) Multi-level leadership and collaborative approaches

Issue: While this is not strictly a political issue, leadership and positive visions are needed at all levels within the food system towards the goal of sustainable diets. Leaders will need to connect and collaborate to combine their efforts in effective ways. Recently, the work of the Scottish Food Collaboration has joined the expertise and work across multiple organisations (RSPB,



Nourish Scotland, Obesity Alliance Scotland and others) to effectively advocate for new legislation. The Good Food Nation Act, while not containing all its advocates intended, has pushed various aspects of sustainable healthy diets into new statutory requirements.

Solution: Collaborative approaches and shared thinking between those with expertise and experience in food policy must be supported at all levels through collegiate cross-sector roundtable events and working groups, easily accessed pots of funding for local initiatives, and by a national Food Bill to statorially require a connected and monitored food strategy across all parts of the system.

Conclusion: Preparing for systemic change and the role of public health

The case and urgent need for large scale transition to sustainable diets and to a more sustainable food system is strong. There is a substantial body of evidence charting the devastating impacts of our current food systems on climate, biodiversity, human health, and social justice. Equally, there are significant gains on all these fronts to be made by a transition to sustainable diets where the emphasis is on *how* food is produced, consumed and wasted and what the diet is.³

The intention of the FPH Sustainable Diet Working Group is to explore the blockages and lock-ins, and to see where and how the public health movement and the Faculty in particular can contribute to building pressure for actual positive change, not just the case for it.

As one of its three key recommendations in the 2022 policy position statement on food, the Faculty called for:

“A strategic plan for how to shift our population to a healthier and more sustainable dietary pattern, to include a clear definition of what a healthy, sustainable diet means, and policy drivers across all levels of government to support this shift.”¹

We conclude by supporting this recommendation, and adopt it as the central aim for the Sustainable Diet Working Group. Further papers will explore and define positions and opportunities to advance this objective, and develop a strategic plan to shift our population to a healthier and sustainable food system.



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