Making sense of UPFs: a public dialogue

Findings report

Hopkins Van Mil

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Food Standards Agency
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UK Research and Innovation

sciencewise

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Cover image: Postcode Films, Participant notes, Workshop 5, Liverpool

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Foreword

Food matters to everyone. It is essential to our health, our culture, our economy and our environment. This is why it is critical that we engage with people when determining where to focus our research efforts.

This report is the culmination of a year-long journey and I want to extend my sincere thanks to the 132 participants from across the UK who invested their time and lived experience in this process. We must never underestimate people's ability to grapple with complexity, and participants did an excellent job of telling us where UK research should focus.

The final workshop produced 95 top research priorities across all locations, which were distilled from 322 research ideas overall, providing a clear direction of travel. Over the course of this dialogue, participants moved beyond headlines to engage deeply with the science, ethics and systemic drivers of our modern diet and the role of ultra-processed foods (UPFs).

Today, UPFs dominate our diets, accounting for an average of 56 per cent of calories consumed - a figure that rises to 68 per cent in adolescents. While observational studies indicate a correlation between high UPF consumption and poorer health outcomes, we still do not fully understand what underpins this association and whether it is direct or indirect.

Participants from across society have spoken and their mandate for UK research is clear and bold. Based on the insights from this dialogue, people would like to see research to understand how and to what extent UPFs impact health, focusing on possible biological mechanisms and impacts on child development. They would also like to see research on how UPFs might impact the environment, in terms of primary production and packaging.

Participants see a need for more behavioural research and structural research focused on shifts in the current focus on UPFs in the food system. Underpinning all research areas recommended was a set of principles for research, including transparency and independence. There is a role for both fundamental mechanistic research as well as evidence-based applied research with industry, for example in reformulation.

UK Research and Innovation's (UKRI) role is to provide the best possible evidence to inform UK policy. Working across UKRI themes and research councils, we will ensure these findings feed into our research priorities and programmes. We are committed to building upon all existing evidence, including these dialogue findings, to answer the questions that matter most to society.

Addressing the complexities of the food system requires a collective partnership between the research and innovation ecosystem, government, NGOs, industry and the public. UKRI is uniquely positioned to convene these stakeholders and we are committed to leading this multidisciplinary effort to ensure our food system promotes both human and planetary health.

Credit: Dasha Tenditna

Professor Anne Ferguson-Smith, Executive Chair,
UKRI Biotechnology and Biological Sciences Research Council

Executive Summary

Context

Ultra-processed foods (UPFs) are an increasing proportion of UK diets, with 56% of the calories we eat as a nation being drawn from them[1]. This is considerably higher than other European countries including Italy, France and Portugal[2]. There has been extensive research on the impacts on High Fat, Salt, Sugar (HFSS) food, but there is less understanding of the effects of the increased consumption of UPFs.

In December 2024 UK Research and Innovation (UKRI) and UKRI's Sciencewise programme (Sciencewise), with support from the Food Standards Agency (FSA), commissioned the public dialogue *Making Sense of UPFs*. The dialogue was designed and delivered by the specialist social research agency Hopkins Van Mil (HVM).

Objectives and approach

The public dialogue set out to ensure that the views of people across the UK feed into UKRI research and innovation priorities and programmes at an early stage. It aimed to develop understanding of public views on:

- What participants consider to be important paths for research
- How UPFs impact the health and wellbeing of the population
- Potential for policy actions in the area of diet and health.

A key objective was to map, explore and prioritise gaps in UKRI research agendas, areas of uncertainty and future research needs.

The dialogue design was informed by several scoping activities as an initial baseline from which to build the dialogue. This included a:

- Suite of existing reviews on UPFs and public perceptions of UPFs[3,4,5];
- UK nationally representative survey of 2,000 people on UPFs conducted by M·E·L Research;
- Rapid topic review to establish what is currently understood about UPFs;
- Design workshop with stakeholders and specialists in the field of UPFs which informed the dialogue design.

This preliminary work made it clear that there is a lack of understanding of the mechanisms by which diets rich in UPFs affect the human body, behaviour and the environment. These scoping activities also showed that what the UK population

[1] Scientific Advisory Committee on Nutrition, SACN statement on processed foods and health, SACN, Crown copyright (2023).
[2] Crimarco, Anthony & Landry, Matthew & Gardner, Christopher. (2021). Ultra-processed Foods, Weight Gain, and Co-morbidity Risk. Current Obesity Reports. 11. 1-13. 10.1007/s13679-021-00460-y.
[3] Sciencewise, British Science Association, UKRI, Public perceptions of ultra-processed foods: A Sciencewise social intelligence report. Sciencewise (2024)
[4] Food, diet and obesity committee, Recipe for Health: a plan to fix our broken food system (2024). Available online.
[5] E.g., Food Standards Agency/ ACSS (2024) Consumer Understanding and Concerns About UPFs: a Rapid Scoping Review of Current Evidence. Available online and Food Standards Agency (2024) Consumer Insights Tracker July to September 2024. Available online.

understands UPFs to be, and how those working in the field define it are both unclear.

Survey respondents were given this adapted version of the Nova classification[6] to work with, which was also the starting point for the public dialogue participants:

Terminology on UPFs used in the dialogue

Exact definitions of UPFs vary, but for the purpose of this survey please think about UPFs as foods for which all of the following apply:

- tend to include more than 5 ingredients AND;
- include ingredients which wouldn't be found in a domestic kitchen AND;
- are made from substances derived from other foods AND;
- include additives.

Some advantages of UPFs generally include enhanced taste, reduced cost, and longer shelf life. But there is growing evidence that some UPFs are associated with poorer health. The science is still unclear about whether these health impacts are due to the ingredients used e.g. high use of saturated fat, salt and sugar, additives, or the manufacturing processes used.

The dialogue findings

Participants were shocked by how widespread UPFs are in UK diets and as a result believe comprehensive research on UPFs is needed. They call for clarity on UPF impacts on physical and mental health, particularly for children. Many participants supported immediate action on UPFs in relation to their most serious concerns, especially child health and non-communicable diseases, rather than waiting for complete evidence, fearing inaction will harm future generations. They expressed strong concern that the food system creates an illusion of choice while leaving decisions to market forces, deeply distrusting industry messaging while placing greatest trust in publicly funded researchers. Participants called for power to shift from food companies to government and the public, informed by scientific evidence.

As the first public dialogue on UPFs this foundational work has engaged people across the UK in complex deliberations, highlighting the topic's importance and urgency. Participants want greater public awareness about UPFs and believe further dialogue is needed to build momentum for addressing these critical issues.

A complex subject

As the dialogue progressed, people realised how complicated this topic is. In response, they made it a priority to build up a stronger, more solid body of evidence from which to develop policy. Many also recognised the complex trade-offs at play here including a “balancing act” of convenience and affordability against potential harmful impacts on health and the environment.

[6] Monteiro, C.A., Cannon, G., Lawrence, M., Costa Louzada, M.L. and Pereira Machado, P. 2019. Ultra-processed foods, diet quality, and health using the NOVA classification system. Rome, FAO.

This demonstrates why public dialogue is a valuable method for understanding these complexities in depth. It gives people significant time in workshops, and on their own, to reflect on the issues and come to conclusions which are underpinned by their values and based on the principles they develop with all those involved in the dialogue.

Research priorities

Participants prioritised research on UPFs across three areas:

1. **UPF research**: on the impacts of UPFs on health, and the impact on the environment of their production
2. **Behavioural research**: on people's interactions with UPFs
3. **Structural research**: on broader societal and food system factors affecting UPF production and consumption.

Priorities for UPF research

Participants felt it was most important to understand how and to what extent UPFs impact physical and mental health. This meant understanding how UPF consumption might lead to poor health outcomes.

Research on specific additives, and possible mechanisms by which consumption could cause physical and mental ill health is important to participants. They wish specifically to clarify the confusing UPF landscape. They want to know: are some UPFs better or worse for you, than others? What are the 'good' and what are the 'bad' UPFs? And can UPFs be eaten as part of a healthy, balanced diet? This is why participants want an agreed definition: to drive research, policy and people's food consumption.

Participants prioritised research on UPFs which leads to:

- An understanding of any specific impacts on child development;
- Scenario building. For example, what will happen to the nation's health in coming decades if there is no change in the consumption of UPFs?
- A greater and more in-depth analysis of the impacts of UPFs on the environment, particularly in the face of the climate crisis.

Priorities for behavioural research

Participants' highest priority research recommendations in this area put UPF consumption in the context of overall patterns of eating. They can be grouped under the question: what ways of shifting towards healthy diets are effective? Participants were interested in the most effective education[7] strategies (including for children and young people) and the effectiveness of front of pack labelling schemes.

Linked to this, many participants prioritised research which seeks to understand the factors affecting current UPF consumption in the UK. They were curious about:

[7] Whilst all locations discussed education in one form or another, participants in Taunton developed a strong focus on researching the effectiveness of school education programmes on children's health outcomes, including improved nutrition and diets.

- What people already know about UPFs;
- The extent to which more widespread knowledge (about the current evidence on health and environmental impact) would affect UPF consumption;
- The extent to which price changes would affect UPF consumption;
- The role of cultural attitudes and food practices in differences between UPF consumption of different groups;
- Motivations for buying UPFs;
- Barriers to healthy diets.

Priorities for structural research
The highest priority area for research at this societal scale was about the affordability and accessibility of healthy food. Participants were interested in research on how to make healthy foods cheaper, and:

- The effects of taxes and subsidies on UPF/ fresh food consumption;
- Any links between accessibility and affordability of fresh food – for example: the extent to which UPFs make up a higher proportion of foods that are available in more deprived areas including the:
    - impact of the decline of the high street on foods available;
    - impact of the rise of food delivery platforms and widespread advertising of UPFs.
- The effectiveness of specific schemes on making healthier choices affordable and accessible e.g. community food hubs, local food production, allotment schemes;
- The impact of trade with other countries on the availability of UPFs in the UK.

Principles for research
Participants discussed the principles that underlie their decisions on research priorities as being to:

- Include long-term studies, (without precluding action now);
- Create research partnerships and collaborations, nationally, e.g. academia and the NHS, with industry and internationally;
- Include and account for diverse populations: differences in impact according to age, gender, ethnic and cultural diversity, and pre-existing health conditions;
- Be independent of industry influence, whilst ensuring effective collaboration with industry in when it furthers research aims;
- Be transparent – in methods, findings and funding;
- Ensure research plans and accounts for potential changes in eating behaviours over time;
- Assist in addressing key societal challenges e.g., rising diet related conditions and health inequalities.

Why these research areas?

Participants expressed deep concern that UPFs are “everywhere”. Their priority research areas were proposed because of the scale of impact they felt the research could have.

This impact comes through three main pathways:

Government:

- Helping to decide whether government should take action leading to the reduction/ restriction/ or reformulation of UPFs – and what that action should be.

Society:

- Concerns for impacts on public health;
- Concerns for impacts on the environment;
- Concerns that the food system has embedded inequality with those on lower incomes being less able to make food choices that would be better for their health;
- A fear that society has relinquished control of what is available and affordable on our High Streets to vested interests - rather than to good public policy in the best interests of communities.

Industry:

- Supporting the reformulation of UPFs to avoid possible harms;
- Collaborations with academic research teams;
- Retaining some benefits of UPFs e.g., convenience.

Trust and UPFs

Trust was a key concept for dialogue participants, particularly when faced with the uncertainties and complexities of UPF definitions and evidence gaps. Participants thought about who is trusted to deliver research, and who is trusted to use that research for policy and action. Participants described a lack of trust in the language they see used to promote and market UPFs, calling it, “manipulative”, “insidious” and “crafty”. Their view is that society is being lulled into a false sense of security with health messaging on UPF packaging and advertising.

People spoke of receiving information and their main messages on food/diet from advertising, marketing and information on food packaging. They spoke of the power and influence of media and social media. They also said that some messages on food and diet came to them from the NHS and government.

Trusted information is defined by participants as being provided by those who do not have a vested interest in what people consume, and in those who have credentials in their field. They therefore expressed most trust in academia, researchers and scientists as providing evidence-based, independent information on UPFs. They see such specialists as being credible, transparent in their actions, and most likely to deliver public benefit.

Balancing risk

There was no unanimous view on the standards of evidence required for action to be taken on UPFs. Some participants felt there is enough evidence about the harms caused by a diet high in UPF to warrant action now. They took a ‘precautionary principle’ approach to risk management, whereby action is taken on the basis of a credible reason to believe there is potential for harm, even if the scientific evidence is not as yet completely clear. Others believe that policy should be made on the basis of the strongest evidence base. Some felt that having certainty on causal impacts of UPFs, through robust research, would force government and industry change, if change proves to be necessary.

Participants were more likely to support immediate action on UPFs when they saw the potential harms as being serious and urgent. For example, they worried that delaying action while waiting for more research could:

- Cause long-term health problems for children as they grow up;
- Lead to an increase in non-communicable conditions such as diabetes and obesity;
- Put increasing pressure on the NHS.

Participants also expressed concern about the length of time it takes for policies to be enacted.

Power in the system

For most participants power is equated with money. Concerns included:

- The consolidation and concentration of power;
- The global scale and small number of large overarching food companies was seen as problematic in their influence on the food system;
- Choice was seen as an illusion in the context of the food environment.

Many of the final research priorities the groups agreed on at the end of the process were focused on power and driving industry change.

The public dialogue method

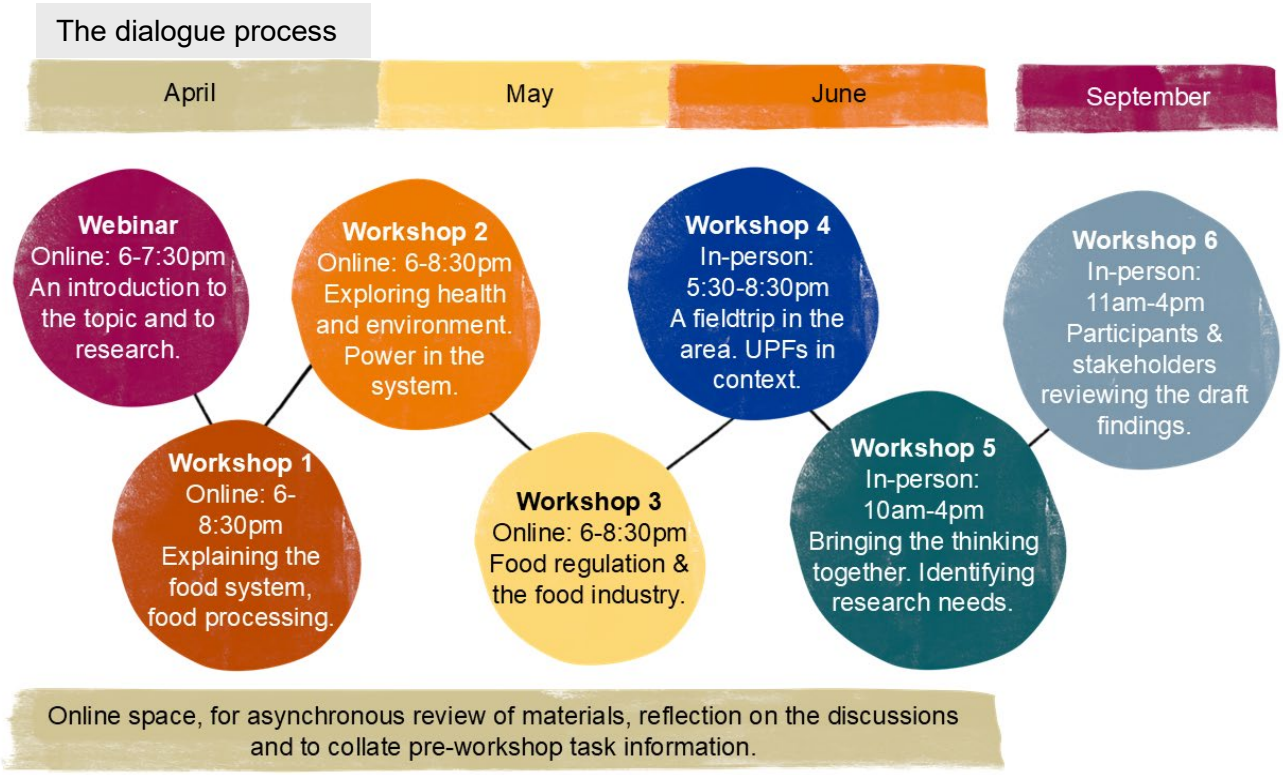
Who was involved?

A group of 132 people were engaged to take part in the dialogue using purposive sampling. They were broadly reflective of the UK population and came from each of the home nations. Targets were set for some demographics to make sure the dialogue was inclusive of a range of backgrounds and to avoid over-representation of certain demographics, e.g., those with higher levels of educational attainment. The process set out to be inclusive of those whose voices which are rarely heard in engagement processes, and to ensure no one felt that their role was to represent a community or place. The recruitment (and delivery) focused on seven UK locations: Kirkcaldy, Belfast, Swansea, Taunton, Liverpool, Middlesbrough, and the London Borough of Newham.

What did they do?

Dialogue participants took part in 18+ hours of deliberation over the course of six workshops, and in an online space, from mid-April to the end of June 2025.
A ‘National Summit’ workshop was held in September in Birmingham. 13 dialogue participants joined an equal number of stakeholders and specialists to discuss the early report findings.

Stimulus materials began with contextual materials on the food system. Three case studies were part of the process: alternative proteins; packaged sweet and savoury snacks; and packaged bread. Stimulus was also generated by participants in pre-tasks and throughout the process. Films were made as a result of a parallel programme of engagement with people who have experience of weight-related health conditions; are time poor; and young people (aged 14-18). These films also contributed to the stimulus materials.



Reading this report

This report is divided into three parts. Readers of this report who are interested in the dialogue process and method should begin with Part one. Those who want a clear understanding of the research areas that participants recommended should focus on Part two; and those who wish to understand participants' broader reflections on UPFs within the context of the food system should go to Part three. To focus the report on the findings we share the details of the method, recruitment strategy and our stimulus materials in a Technical Appendix which has been published separately. The appendices listed in this report refer to this separate document.

Part one: about the dialogue

Participants making sense of UPFs: Workshop 5, Middlesbrough

1. Introduction

In this chapter the context in which *Making sense of UPFs: a public* dialogue was designed is described. The aims and objectives of the dialogue are described along with the key questions explored through the process. The commissioning bodies and delivery organisations are explained. Information is given on how to navigate the report to ensure readers can focus on where they are most interested.

1.1 Context

Diets and lifestyles have changed significantly since the mid-20th century. Over the last four decades there has been an increase in the consumption of ultra-processed foods (UPFs), which has coincided with increasing rates of obesity and poor health outcomes[8]. On average, 56% of the calories we eat in the UK are from UPFs[9], second only to the United States (58%) globally. This percentage is considerably higher than in most other European countries including France (14%), Italy (13%), and Portugal (10%)[10].

The contribution of UPFs to total dietary energy intake varies by age group:

- 63.5% (children aged 1.5 to 11 years)
- 68% (adolescents aged 12 to 18 years)
- 51% (adults over 19 years)[11].

An increase in the consumption of UPFs in the UK has been linked to the 'nutrition transition' [12], a global shift towards highly processed diets. In the UK there is currently only mixed evidence to suggest that lower income groups have notably larger proportions of UPFs in their diets compared to higher income groups. Some evidence suggests that consumption of UPFs is high across all socio-economic groups. In the context of obesity and changing diets, there is concern over associations between increased consumption of UPFs and adverse outcomes including for health, equality and sustainability.

UPFs have been the subject of increased attention and debate in the media and in public forums over the last eighteen months, highlighting the knowledge gaps that exist in relation to potential harms of UPFs. However, arriving at an appropriate understanding of how these foods can be defined is complex. Nova classification[13] is widely employed to define the spectrum of food processing from unprocessed to ultra-processed foods but is not seen as appropriate for research purposes aimed at determining causal mechanisms, nor for the development of food policy. The UK Government uses the 'nutrient profiling model', a scoring system developed by the Foods Standards Agency to help stakeholders differentiate between healthy and

[8] Mutebi, N, POSTbrief59 Health impacts of ultra-processed foods, UK Parliament POST (2024)
[9] SACN, SACN statement on processed foods and health, SACN (2023)
[10] Crimarco, A, Landry, M, Gardner, C. Ultra-processed Foods, Weight Gain, and Co-morbidity Risk. Current Obesity Reports. (2021) 11. 1-13. 10.1007/s13679-021-00460-y.
[11] SACN, SACN statement on processed foods and health, SACN (2023)
[12] A. Taylor; evidence to the House of Lords Food, Diet and Obesity Committee (2024)
[13] Monteiro, C.A., Cannon, G., Lawrence, M., Costa Louzada, M.L. and Pereira Machado, P. 2019. Ultra-processed foods, diet quality, and health using the NOVA classification system. Rome, FAO.

unhealthy foods. A number of observational studies have highlighted associations between consumption of UPFs and adverse health outcomes, but further research is required to understand what factors are involved in these associations, and if they are due specifically to intensive processing.

Determining the impact of UPF consumption on public health and wellbeing is a complex question of causation and correlation. Is consumption of UPFs associated with adverse outcomes due to the:

- Processed nature of the food items, including the use of chemical additives?
- High fat, salt and sugar content?
- Contribution made to obesity?
- Or a combination of all these factors?

Understanding public perceptions, uses of and attitudes towards UPFs across a range of contexts is important in deciding future research, policies and activities.

In December 2024 UK Research and Innovation (UKRI) and UKRI's Sciencewise programme (Sciencewise), with support from the Food Standards Agency (FSA), commissioned a UK-wide public dialogue to explore public knowledge of and attitudes to UPFs with a focus on UKRI research priorities in this area.

1.2 Aims, objectives and research questions

Aims

The public dialogue set out to ensure that the views of people across the UK feed into UKRI research and innovation research priorities and programmes at an early stage. It aimed to develop understanding of public perspectives on:

- What participants consider to be important paths for research on UPFs;
- How UPFs impact the health and wellbeing of the population;
- Current awareness of prevalence in diets;
- What role UPFs play in daily life (convenience foods, accessibility/ affordability of food), and appropriate regulation;
- And potential for policy actions in the area of diet and health.

Objectives

To achieve these aims the dialogue had the following objectives:

- Build on existing reviews of evidence on UPFs (e.g., British Science Association (BSA)/ Sciencewise social intelligence report on UPFs[14], the House of Lords Select Committee on food, diet and obesity[15], and a range of studies and work by the FSA[16]);

[14] British Science Association, Public Views on Ultra-processed foods (2024). Available online.
[15] Food, diet and obesity committee, Recipe for Health: a plan to fix our broken food system (2024). Available online.
[16] E.g., Food Standards Agency/ ACSS (2024) Consumer Understanding and Concerns About UPFs: a Rapid Scoping Review of Current Evidence. Available online and Food Standards Agency (2024) Consumer Insights Tracker July to September 2024. Available online.

- Produce quantitative information on public attitudes and knowledge of UPFs via a nationally representative survey;
- Develop understanding of participants' knowledge and attitudes on UPF using deliberative and dialogic approaches;
- Reflect on language and definitions;
- Understand participants views on the impacts of UPFs on health and environment;
- Explore participants' expectations of public health messaging, food marketing and regulation within the food system;
- Explore their information needs and who they trust to provide information to them;
- Prioritise, map and explore future research needs, research gaps, and areas of uncertainty.

Key questions to be explored through the dialogue

Using a range of deliberative methods participants explored a range of topics and issues on UPFs developed from six key questions:

- What research is needed to better understand the issues around UPFs including impacts on health and the environment?
- Why are these research areas important and how are they prioritised by participants?
- What are participants' broad views and attitudes towards food including how they choose what to eat?
- What are their perceptions and knowledge of UPFs, including trusted information sources on the topic?
- What is important in terms of regulation and food system change?
- Should government and policy makers act now, applying the precautionary principle, or wait until there is more foundational evidence providing certainty before making policies or taking action on UPFs?

1.3 Commissioning, delivery and governance

Commissioning

Making Sense of UPFs: a public dialogue was commissioned by:

UK Research and Innovation (UKRI) has a mission to advance knowledge, improve lives and drive growth. This is supported by their vision for an outstanding research and innovation system in the UK that gives everyone the opportunity to contribute and to benefit, enriching lives locally, nationally and internationally.

Through the UK's nine leading academic and industrial funding councils UKRI creates knowledge with impact. Food cuts across each of UKRI's five strategic themes.

Sciencewise is an internationally recognised public engagement programme which helps to ensure research and policy is informed by the views and aspirations of the public. The programme is led and funded by UK Research and Innovation (UKRI). Sciencewise supports policymakers and research funders to carry out public

dialogues on issues with a scientific or technological component. This public dialogue was conducted in line with Sciencewise Guiding Principles[17], including its latest quality framework. The dialogue was supported by a Sciencewise advisor.

The Food Standards Agency (FSA) supported the project by joining the project management team and the oversight group (OG). The FSA is an independent, non-ministerial department, established in 2000 following several high-profile outbreaks of foodborne illness such as BSE (mad cow disease). Its objectives, powers and duties are mainly set out in the Food Standards Act 1999. It works across England, Wales and Northern Ireland to protect public health from risks arising from the consumption of food and to protect the interests of consumers in relation to food.

Delivery

This UK-wide public dialogue was designed, delivered and reported on by Hopkins Van Mil (HVM). HVM is a specialist deliberative social research agency which for 20 years has been engaging people across society in deliberative processes on complex, contentious and sensitive societal issues. This has included significant programmes on the food system including the National Food Strategy (2021), The Food Conversation (2024) and the Citizens' Jury on Health and Harmful Products (2024). These have all indicated citizens growing concern with a food system which is failing to meet the needs of society.

HVM worked with M·E·L Research who created the nationally representative survey on UPFs (Appendix C) and Postcode Films who created the public dialogue film, illustrating the dialogue process and amplifying participant voices on the issues that matter to them.

As with all Sciencewise projects, an independent evaluation was commissioned at the beginning of the project in this instance from URSUS consulting. The evaluators provided formative evaluation by taking part in each element of the design process, including co-design meetings, oversight group meetings, and internal project meetings. The evaluators were also present for all the online workshops, and all but one of the in-person workshops. A full evaluation of this study will be published in mid-2026 to assess the shorter-term impact of the project on research and policy agendas.

Governance

The project team met weekly in the scoping, design and fieldwork phases of the programme. The team comprised the commissioning bodies UKRI, Sciencewise, FSA and the programme evaluators URSUS Consulting with meetings run by HVM. An oversight group was established involving multiple stakeholders from academia, government and policy bodies, NGOs and food industry bodies. Given the nature of the topic, and the evidence suggesting powerful influence is exercised on UPFs function in the food system, project team and oversight group members (listed at Appendix A) all completed declarations of interest.[18] Those involved in the programme's governance played a significant role in designing the public dialogue, informing, shaping and making decisions on each element.

[17] https://sciencewise.org.uk/about-sciencewise/our-guiding-principles/
[18] Available in the Technical Appendix

1.4 About this report

Public dialogue reports are qualitative in nature. As such we do not report on the number of times something was said, but rather the strength of feeling expressed across the methods used. For this project we used grounded theory, which means we read and re-read the transcripts many times. We collated what was said into key themes and used those themes to draw out meaning from the discussions. We chose this approach to ensure the findings are rooted in what participants told us, guided by the dialogue objectives and the research questions, rather than looking for confirmation of preconceived ideas.

The dialogue engaged participants who were broadly reflective of the UK population in demographic characteristics. They were drawn from seven locations across the UK. We have highlighted differences in views where these were particularly distinct for a specific location. Generally commonalities, patterns and differences were analysed across the complete data set.

We use the following quantifiers in the report:

- 'Many' or 'most' when it is clear that all or almost all participants shared a similar view;
- 'Some' when a reasonable number of participants shared a similar view;
- 'A few' when a small number of participants shared a similar view.

Bullet points are used to summarise key points made. These mostly reflect areas of agreement and where points were made by many participants across many groups. Public dialogue participants reflect together on the implications of a topic for society. For this reason our analysis does not pull out differences in view according to demographics.

Anonymised quotations are used to highlight points made by participants and to underline points made by a range of people. They also highlight points of particular significance to participants.

Analysis of dialogue findings does not track how participants reacted to specific pieces of evidence, nor when they might have changed their mind on the topic or a specific aspect of it. Given the uncertainty in the evidence, and the range of perspectives presented to them on it, they might have changed their minds a number of times in the course of one workshop, and over the whole project. Significant shifts in attitude are reported on.

The amount of evidence and specialist input that the participants could consider was limited to what was reasonable in the twelve-week dialogue process.

Throughout the process the HVM coding, analysis and writing team maintained a rigorous approach, holding sense-checking sessions as a team to mitigate against researcher bias. The purpose of the analysis is to meet the dialogue aims and objectives, accurately reflecting participants' views and sharing what they have found important.

2. Method

The dialogue was conducted in four phases: scoping and design; fieldwork delivery; coding, analysis and reporting; leading to dissemination and communications. How the dialogue was conducted is set out in this chapter. Turn to part 2 to move straight to the dialogue findings.

2.1 Scoping and design

The scoping and design phase incorporated activities which informed the dialogue approach; the development of stimulus materials; how evidence was presented and by whom; and dialogue activities. These activities included:

- A social intelligence report by the British Science Association (BSA)[19];
- A rapid topic review of 31 source documents from academia, government/ parliament, civil society and industry;
- A design workshop with 16 stakeholders who came together to explore the dialogue scope, framing and materials;
- The design and delivery of a nationally representative survey on UPFs conducted by M·E·L Research;
- Focussed discussion groups with 11 young people (aged 14-18); 9 people who self-identify as time-poor; and 10 people with experience of weight-related health conditions.

The Technical Appendix C shares details of the findings from these activities.

2.2 Definitions and terminology

There are multiple systems of classifying foods by their processing level. The most well-known and commonly used is Nova, developed in 2009 by Prof Carlos Monteiro and colleagues as a research tool[20]. Nova was the only system which met the Scientific Advisory Committee on Nutrition's (SACN) criteria for selection in its 2024 position statement on processed foods and health, due to its precedence in use and applicability to UK.

Debate over the usefulness of the classification centres around the argument that it is not specific or objective enough for regulatory or diet policy use. Some also argue that Nova is a useful whole-diet concept which has grabbed public attention, but that it should not be used for hyper-literal classification of individual foods.

An adapted version of the Nova classification was used in the dialogue (Box 1) as an initial way of introducing UPFs to participants. However, the design and scoping process demonstrated how important it would be, through specialist presentations and stimulus materials, to show the uncertainties and challenges around existing

[19] British Science Association Public perceptions of ultra-processed foods: A Sciencewise social intelligence report. Sciencewise, BSA, UKRI (2024)
[20] Monteiro, C et. al., Ultra-processed foods: what they are and how to identify them, Public Health Nutrition (2019).

classifications including Nova. For example, it highlighted that this would be needed to explain to participants the role of classification in regulation and policy making, and the complex interaction between UPFs and High Fat Salt Sugar (HFSS) foods.

Box 1: terminology on UPFs used in the dialogue

Exact definitions of UPFs vary, but for the purpose of this survey please think about UPFs as foods for which all of the following apply:

- tend to include more than 5 ingredients AND
- include ingredients which wouldn't be found in a domestic kitchen AND
- are made from substances derived from other foods AND
- include additives.

Some advantages of UPFs generally include enhanced taste, reduced cost, and longer shelf life. But there is growing evidence that some UPFs are associated with poorer health. The science is still unclear about whether these health impacts are due to the ingredients used e.g. high use of saturated fat, salt and sugar, additives, or the manufacturing processes used.

2.3 Who took part in the dialogue?

Carefully constructed criteria (Appendix D) were established to recruit 132 people to take part in the dialogue using purposive sampling. This method reduces the likelihood of bias in who is engaged in the dialogue. It ensures participants broadly reflect the demographics of the UK population. The criteria were reviewed and approved by the oversight group and the project team before recruitment began.

Targets were set for some demographics to make sure the dialogue was inclusive of a range of backgrounds and avoided over-representation of certain demographics, e.g., those with higher levels of educational attainment. Targets were also set for the dialogue to involve people whose voices are rarely heard in engagement processes and to ensure no one felt that their role was to represent a community or place. Recruitment (and delivery) focused on seven UK locations (Appendix D) which:

- Reflected a range of different geographies and food distribution/ retail characteristics, for example remote rural areas and densely populated urban areas;
- Took place in each devolved nation, to mirror the devolved nature of food policy;
- Avoided locations chosen for the Food, Farming & Countryside Commission's (FFCC) Food Conversation, the National Food Strategy public dialogues and WWF's Land of Plenty, so as to take the engagement to new locations, to build on, not replicate, previous deliberations;
- Were where research teams are located to support the involvement of specialists for the in-person sessions.

2.4 What did they do?

Dialogue participants took part in 18+ hours of deliberation over the course of six

workshops from mid-April until end of June 2025. They also spent up to two hours contributing their thoughts in their own time to an online space. Here they could review presentations they had heard in the workshops, think about other contextual material, contribute their own materials and reflect on the topic in their own time.

In addition, 13 participants took part in a final workshop in September 2025. The dialogue structure is set out in Figure 1.

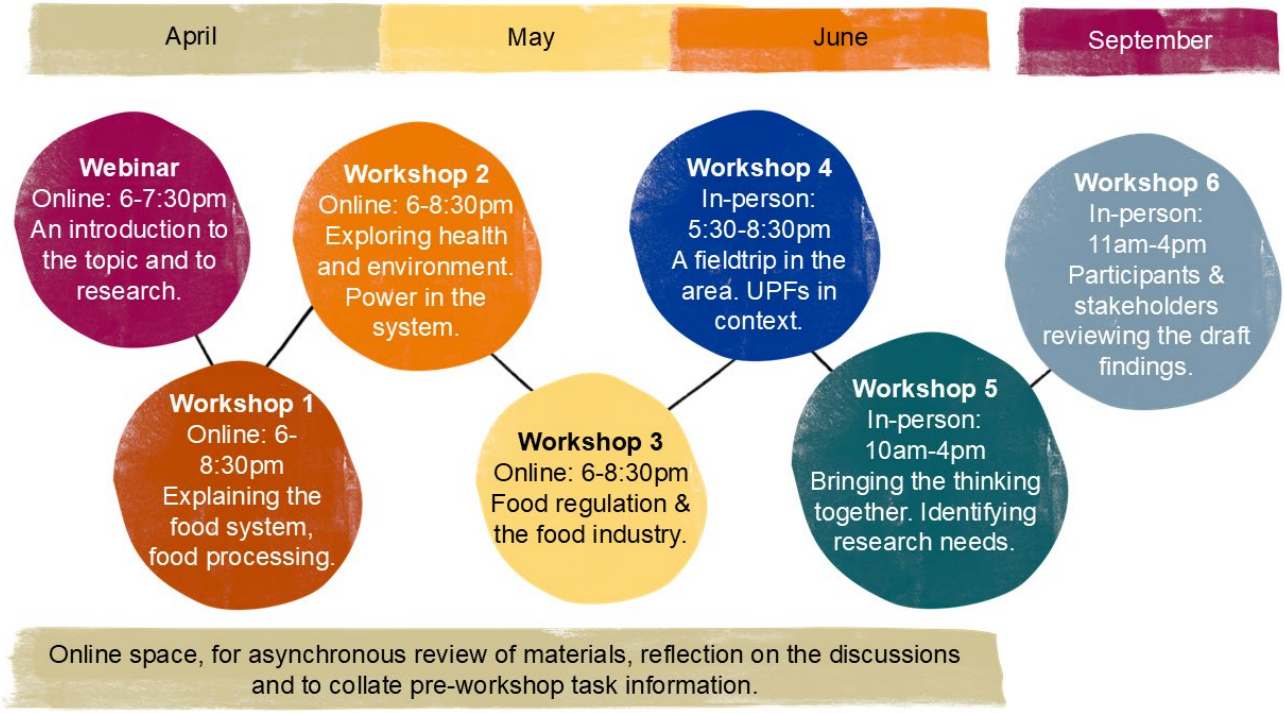


Figure 1: Making Sense of UPFS: a public dialogue - structure and timetable

Dialogue specialists, structure and stimulus

In all public dialogues it is essential that participants hear a range of perspectives to be as informed as possible as they deliberate on all sides of an issue. In designing the dialogue particular attention was paid to this by the oversight group and project team given the contentious and uncertain nature of UPFs in the food system. Eighteen specialists (listed at Appendix D) presented evidence to the dialogue participants and answered their questions. Each speaker was given a detailed written speaker brief (Appendix E) which was followed up by a verbal briefing by the dialogue's design team. Each specialist shared a declaration of interests with the HVM team and then with participants as part of their presentation.

The dialogue was called 'Making Sense of UPFs' to show that there is uncertainty and complexity in the topic, and that participants were being asked to work something out. Participants were told as they joined the dialogue that it would be focused on UPFs. However, they were gradually introduced to this topic by way of explanations of the food system.

The specialist presentations were given iteratively across the dialogue as follows:

Online webinar:
- An introduction to public dialogue and to the topic in the context of the food system;
- What is UKRI and UKRI funded research?
- How research leads to policy impacts.

Online workshop one:
- An explanation of the food system and the ways in which it has become industrialised;
- An introduction to food processing, and what ultra-processed foods are.

Online workshop two:
- Exploring the health and environmental impacts of UPFS;
- Power in the system – an introduction to food environments;
- Introduction of three case studies:
    - alternative proteins;
    - sweet and savoury packaged snacks;
    - and packaged bread.

Online workshop three:
- Presenting how the FSA regulates food;
- Setting out how regulation impacts on what is done by industry.

In-person workshops four and five in each of the seven locations
- Presentation from a specialist in each of the seven areas, explaining the research being done on UPFs locally, regionally and nationally that has a bearing on understanding on UPFs in their area.
- A review of all the presentations and stimulus materials shared throughout the dialogue.

In the workshops participants were given time to ask questions of the presenters and about the information provided in stimulus materials. They spent significant time in small groups in each workshop deliberating on the issues. A section of the morning of the last workshop was set aside for the participants to review all the presentations and stimulus materials. This avoided participants forgetting information that they had received in the early stages of the dialogue; only remembering information from the last person they heard from, or from particularly engaging speakers. This meant that they could build on all of the stimulus in drawing up their final research priorities. The long list of research priorities agreed on by participants (with at least 15 research priorities collated in each location) is shared at Appendix F.

Participant-led materials and questioning

An essential part of any dialogic process is for participants to bring their own views and experiences to their discussions, starting with where they are rather than where the science is. To support that in *Making Sense of UPFs* participants were asked before the first workshop to upload an image of “healthy food” and another of

“unhealthy food” to the online space. These images were discussed in workshop one and helped to contextualise the discussions on diet, health and food perceptions.

After the first workshop participants were asked to share what they had learned so far on UPFs with family and friends and have a chat with them about UPFs: their perceptions of them and how they fit in with their lives. The results of these chats formed part of the early discussions in workshop 2.

In workshop four participants went with facilitators on a fieldtrip in the local High Street, identifying where and how UPFs are sold and promoted, and how they are priced. They noted down what they saw to inform the final deliberations held on the following day. In workshop five participants built on all that they had learned, heard and seen in the dialogue. They were asked to imagine an ‘ideal’ near future where issues with UPFs are solved and then work backwards, discussing what has happened to move from the current situation to this ideal and what research has been done to inform the change.

3. A call for clarity on a complex topic

In this chapter, we discuss the complexity and uncertainty of the topic, outline how public dialogue was used to engage with the issues raised by such complexity, and explore how the public dialogue participants responded to it. The importance participants placed on reducing uncertainty by creating a concrete body of evidence on UPFs and their impacts is highlighted in this chapter.

The public dialogue was on a topic for which there are significant uncertainties, complexities and disagreement. As the topic review HVM conducted in January 2025 (Appendix C) highlighted, it is unclear the extent to which, and the mechanisms by which, diets rich in UPFs[21] have impacts on health. This includes whether these impacts are as a result of:

- Direct relationships: e.g., the effect (of UPF characteristics or additives in them) on gut microbiome, appetite control, rate of eating, the permeability of the gut, micronutrient uptake, the extent to which energy is absorbed by the body, inflammation, metabolism, cancer risks;
- Indirect relationships: replacing healthier foods with UPFs in people's diets, greater consumption due to food environments in which UPFs are low cost, have high availability and are extensively marketed and promoted.

Or, if there is no causal relationship between UPFs and negative impacts, harms related to consumption of UPFs might in fact occur as the result of other factors such HFSS, or socio-economic impacts on diet and health. In other words, consumption of UPFs might only be correlated with, but not causal of, poor health.

There is also a growing body of evidence that the full effects of the cumulative increase in UPF consumption, particularly in younger people, may only appear as people age[22].

There is disagreement about the quality of studies undertaken on UPFs including:

- If studies have been comprehensive enough to understand causal links between UPFs and, for example, health outcomes;
- There is insufficient adjustment for other factors such as lifestyle;
- There are conflicts of interest from study authors for example due to lack of transparency on funding.

Current debate on policy intervention focuses on whether there is enough evidence to act on UPFs now based on the precautionary principle and/ or whether UPFs are significantly different from HFSS foods to warrant different policy mechanisms.

The evidence is even more limited on the environmental impact of UPFs, for example in agriculture, processing, transport and packaging. Some studies suggest that UPFs may reduce food waste and associated greenhouse gas emissions (GHGEs) due to their extended shelf life. Supply chain emissions may not be very different between UPF and non-UPF products in high income countries. However,

[21] As opposed to HFSS which is well researched and understood.
[22] UNICEF, Feeding Profit: how food environments are failing children (Sep 2025). Available online.

life-cycle assessment studies suggest that they have higher GHGE and contribute to biodiversity loss through intensive agriculture. Additionally, many UPFs are discretionary foods, eaten as snacks and are not nutritionally essential, yet still require resources to produce.

Research shows that 71% of food emissions come from agriculture and associated land use activities, while the remaining 29% stems from retail, transport, consumption, fuel production, waste management, industrial processes and packaging[23]. A clear association between agricultural impacts on environment and UPFs has not been proven: intensive production can produce an unprocessed product (e.g. nuts), and ultra-processed plant-based products have lower environmental impact than meat and dairy.[24]

3.1 Using public dialogue to navigate the complexity

Public dialogue is a process during which people from across society, with many different viewpoints, interests and values, interact with specialists, academics, stakeholders and policy makers to deliberate on issues relevant to future decisions. Public dialogue was chosen as the method for this process because it enables constructive conversations amongst diverse groups of citizens on topics which are complex, uncertain or controversial. UPFs is a topic which encompasses all three of these areas.

Public dialogue not only provides an in-depth insight into public views, it also offers a window into understanding people's reasoning. A survey of a much larger representative group informed the beginning of the process. The dialogue was then able to dig deeper into participants' values, exposing the principles that underlie their thinking and enabling people to explore a topic over time on which society has not fully formed its ideas. Public dialogue is:

- **informed** – evidence is provided on what is known about UPFs, how they are produced, what research is being done in the area and how so that participants can give their opinions on future governance; participants have access to specialists in relevant fields;
- **two way** – participants, scientists, and ethical specialists all give something to and take something away from the process;
- **facilitated** – the process is carefully structured to ensure that participants receive the right amount and detail of information, a diverse range of views are heard and taken into account, and the discussion is not dominated by particular individuals or issues;
- **deliberative** – participants develop their views on an issue through an exchange of ideas and discussions with other participants and specialists.

It is worth remembering that participants in public dialogue are not research subjects. They are drawn into the process as members of society and bring into it a wealth of social, economic and political interactions, including with various forms of media, that

[23] Crippa et al., Food systems are responsible for a third of global anthropogenic GHG emissions. Nature Food (2021)
[24] Soil Association, Ultra-processed foods: The case for re-balancing the UK diet (2024)

play into or contrast with their values. These interactions are carefully explored in a dialogue process by means of facilitated and supported discussions. HVM works within and promotes the Sciencewise principles and quality framework[25]. The HVM team has extensive experience in designing, delivering and reporting on the outcomes of public dialogue.

3.2 How participants responded to complexity

Many subjects explored in public dialogues are complex, but UPFs is a topic which is also notable for lack of certainty in the evidence. Lack of certainty is mirrored in how people responded to the UK nationally representative survey (Appendix C) on UPFs as well as how dialogue participants navigated it. For example, in the survey, before seeing the terminology used to describe UPFs (Box 1), 71% of respondents stated that they have heard the term "Ultra-Processed Foods". However, when asked to describe UPFs in their own words 38% did not provide a response.

59% of the UK population would like to find out more about UPFs (particularly younger adults, those in ABC1C2 socioeconomic groups, those with children and Asian/Black ethnicities).

Among these sections of the population seeking further information, the most common areas requested were:

- Detail on which foods are and are not defined as ultra-processed (53%);
- The evidence base regarding potential health impacts (52%).

The survey findings demonstrate the lack of clarity on UPFs in the population, which is mirrored by the public dialogue participants who were keen to stress the uncertainty of the science,

> *"The science is still uncertain, which is why we're doing this. I know our speakers have been presenting harms, but they've also shown where it's not clear the link between harms and UPFs. It's a bit woolly, isn't it?"* Swansea, workshop 4

Participants pointed to the trade-offs being made on UPFs, which they felt adds to the complexity of the topic. They spoke of finding UPFs a useful and convenient addition to people's diets, whilst also being a potential risk,

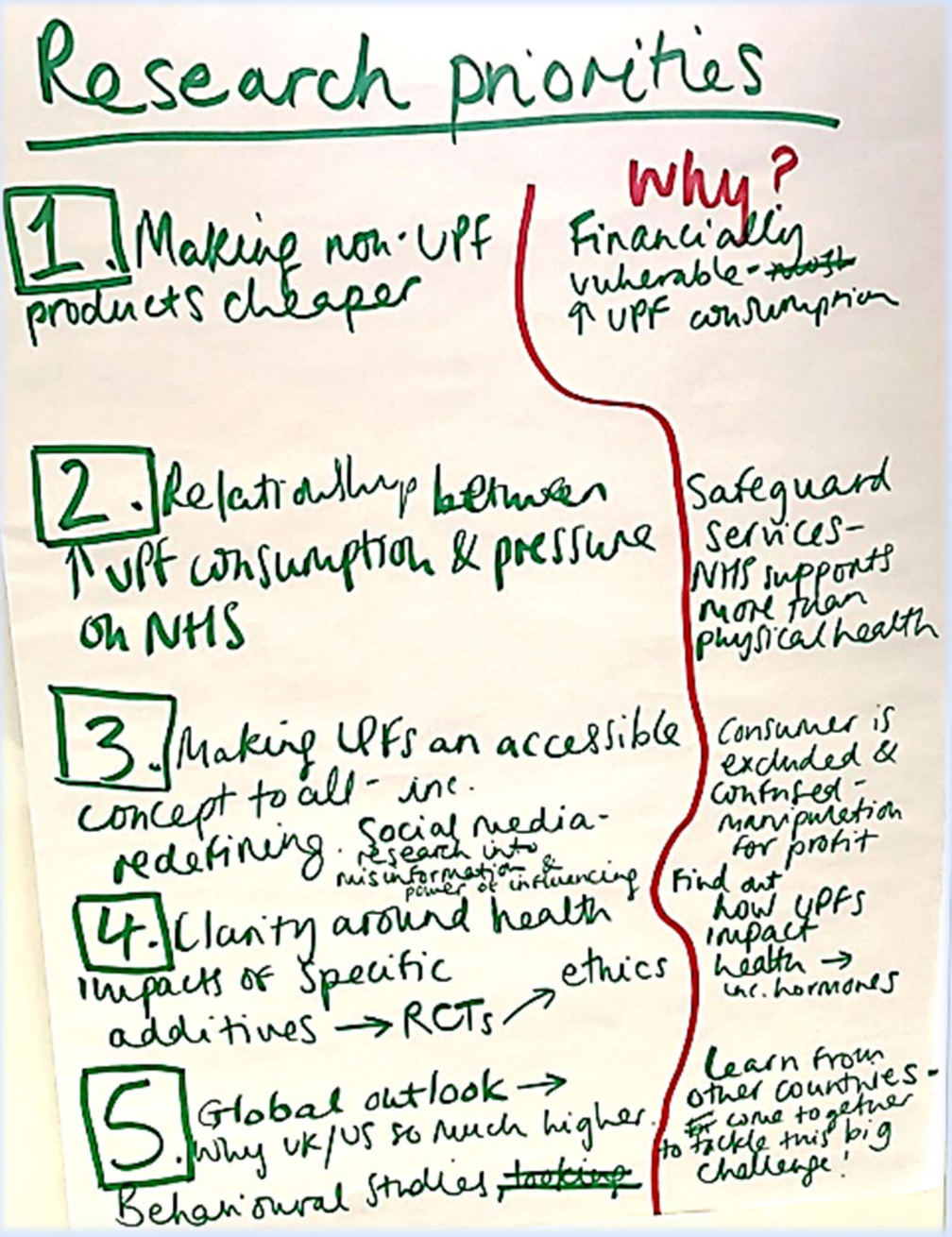
> *"On one hand, they're often incredibly convenient and readily available, which can be beneficial for busy schedules. However, some research suggests a link between consumption of UPFs and things like obesity and heart disease. It's a balancing act – enjoying convenience without sacrificing long-term well-being."* Liverpool, workshop 2

Participants responded to this uncertainty by embedding in their research priorities the creation of a more certain and concrete body of evidence from which to develop

[25] https://sciencewise.org.uk/about-sciencewise/our-guiding-principles/

policy. They prioritised the need for clarity on UPFs, and for research that would bring clear definitions for scientists, policy makers and industry – as well as the wider public (see Part two). They said that a concrete body of evidence is needed to gain a definitive understanding of UPFs and their impacts on health and the environment.

Part two: research priorities



One small group research priorities: Workshop 5, Kirkcaldy

4. The importance of research on UPFs

This chapter discusses the research priorities identified by participants through the dialogue process. These are drawn from the research priorities that each table group came to by the end of the process, but also from a detailed analysis of the discussions participants had to get to these priorities. The rationale for these choices is outlined in chapter 5. The recommended research areas also highlight some important themes – including trust, risk and power – which are explored in Part 3 of this report. We start by summarising participants' key research priorities overall, grouped into three areas, before exploring each area in detail (including where there was more consensus or disagreement between participants).

In this section we see that participants place strong significance on future research on UPFs being conducted. We have grouped their research priorities into three areas (see also Figure 2):

- **Research to build a robust body of evidence on UPFs**: on the impact of ultra-processed foods on health, and the impact on the environment of their production
- **Behavioural research**: on people's interactions with UPFs
- **Structural research**: on broader societal factors affecting UPF production and consumption.

Participants saw these areas as overlapping, without one having priority over another. These areas are summarised below:

Build a robust body of evidence:

- About how and to what extent UPFs impact physical and mental health (especially looking at the role of additives and additive combinations). They are as interested in mental health as physical health.
- To develop understanding about how this impacts children and adolescents' health, development and wellbeing.
- Prioritising research into the health effects of UPF consumption over the environmental effects of UPF production.
- Explore whether there are "good" and "bad" types of UPFs, in terms of health effects.

Behavioural research:

- Participants prioritise research into the effectiveness of different ways to create a public shift towards healthy diets (especially tax, education and labelling)
- They call for this to be underpinned by research to understand more about why people buy and eat UPFs, the extent to which that might change in different scenarios and according to socioeconomic factors.
- Participants want research that takes a global perspective and compares diets at a cultural and/or population level.

Structural research:

- Participants strongly prioritise research that explores how to make healthy foods cheaper and more accessible.

- They call for research into the influence of the advertising UPFs of on individuals and the influence of companies producing, advertising and selling UPFs on government.

The final workshop produced 95 top research priorities across all locations, with each table selecting their top 4-6 priorities (see Appendix H). Participants generated 322 research ideas overall, demonstrating high levels of engagement and creativity on the topic.

4.1 How and to what extent do UPFs impact health?

Causal links and mechanisms

Participants felt it was most important to understand how and to what extent UPFs impact physical and mental health. Understanding effects on mental health was prioritised as highly as physical health effects. They wanted research to explore whether there are causal links between UPF consumption and poor health outcomes; research that goes beyond the current evidence on a correlation[26]. This means understanding how UPF consumption might lead to poor health outcomes, for example exploring mechanisms such as the effect on:

- The gut microbiome
- The effect of UPF on appetite (which participants tended to talk about in terms of addiction)
- The brain and its development
- Hormones such as cortisol.

And for each of these, exploring whether any effects come from specific additives (or their combination), specific processes, or the general nutritional profile of UPFs[27].

> *"What specific components of the UPFs are responsible for those adverse health outcomes? Whether it's like the additives, whether it's the emulsifiers, whether it's the low fibre, whatever else it might have in it."* Liverpool, Workshop 3

> *"The specific impact of ultra processing perhaps, compared to just the contents and worse nutritional profile."* Recollective

[26] Where current evidence shows correlation between diets high in UPF and a range of negative health outcomes, although weaker for some subcategories of UPFs than others.
[27] Participants in Liverpool and Belfast specifically focussed on this issue.

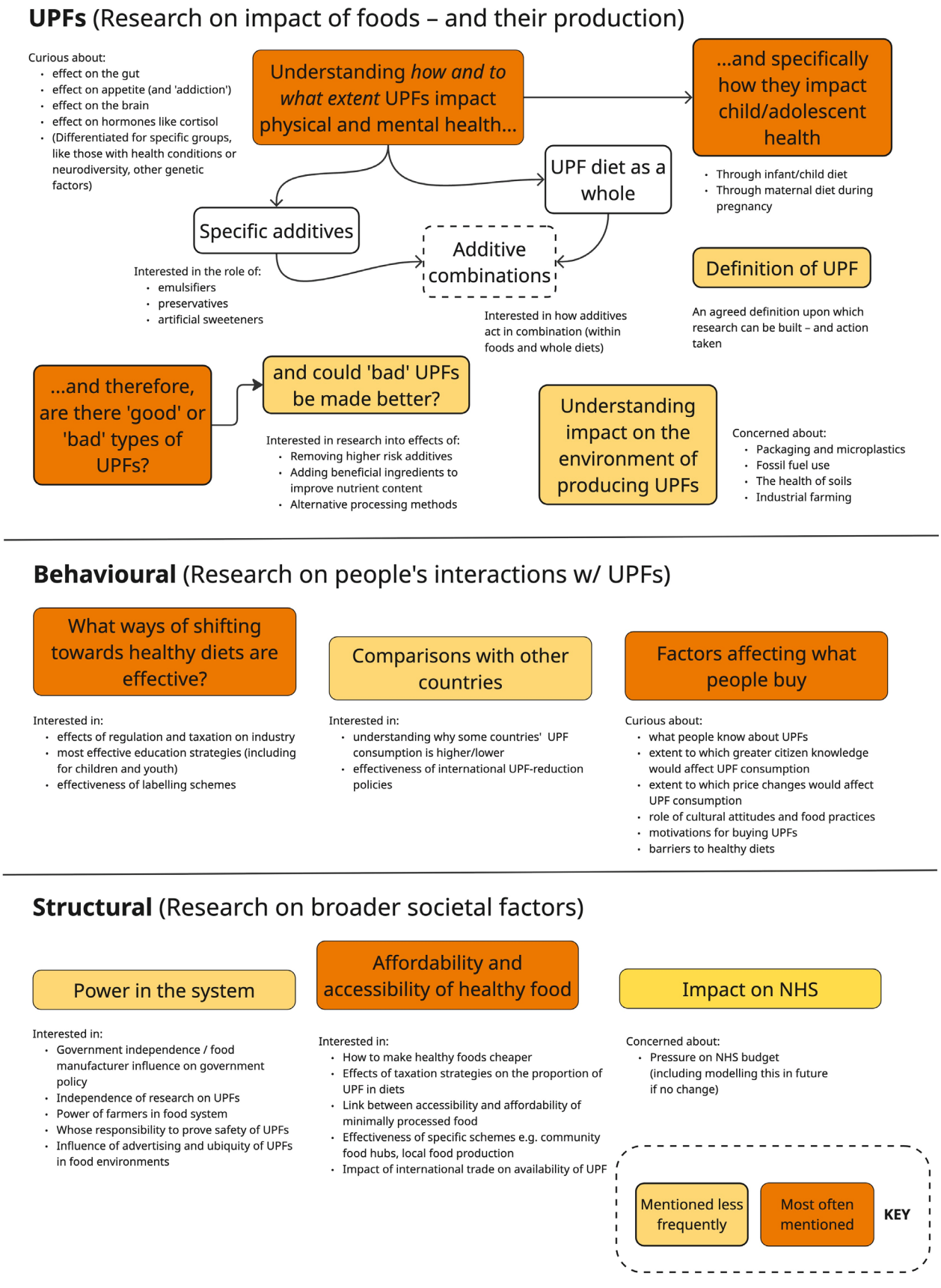


Figure 2: Themed research priorities

Participants were interested in how these mechanisms might affect different people to different extents. By far the highest priority was to understand how UPFs might impact neonatal, infants' and children's health outcomes. This included understanding the impact of a mother's diet being high in UPFs during pregnancy, as well as understanding how an infant or child having a diet high in UPFs could affect development and health outcomes at later stages of their lives.

> *"As adults, we're finished growing, but as children, we're still building bones, health and framework, brain, and so on. I think it would be interesting to see how ultra-processed foods, and especially these that are aimed at younger children affect the health of children as they grow up."* Belfast, Workshop 2

Participants were also interested in exploring how genetic differences might play a role in differential effects of UPF consumption, and therefore if some groups of people were at higher risk from UPFs than others.

In terms of specific physical and mental health[28] conditions, participants wanted more research on possible causal links between UPF consumption and:

- Cancer;
- Autoimmune diseases;
- Overweight and obesity;
- Heart disease;
- Depression;
- Anxiety.

This was mainly due to participants being aware that these conditions are increasingly common. Some participants wanted to understand whether there is a link between UPF consumption and neurodiversity (especially autism spectrum disorders and ADHD), noting their perception that both seemed to have risen over similar periods of time. Connected to this, some participants wanted research to understand whether diets higher in UPFs might exacerbate some negative symptoms experienced by people with neurodiversity (e.g. digestive issues or sleep disturbance).

> *"I think our first priority was the impact on - the neurological impact of UPFs on the brain and does it cause or contribute to the rise of ADHD, ASD and addiction to UPFs? Because we were all saying society now, there are more children being diagnosed as neurodivergent."* Swansea, Workshop 5

> *"Respecting neurodiversity, it wasn't that we thought in any way that UPFs increased neurodiversity but just the impact that it has on - the challenges that people with neurodiversity might have if they are consuming more UPFs."* Kirkcaldy, Workshop 5

[28] All locations discussed the impact of UPFs on mental health. In Swansea it was a very strong theme, forming almost a third of the group's long list of research priorities.

Exploring the role of ingredients and additives

Participants spoke both about research on UPF diets as a whole, and on their ingredients (especially additives). They were interested in research to explore the role that specific additives might play in explaining why UPF consumption is correlated with poorer health outcomes, especially:

- Emulsifiers;
- Preservatives;
- Artificial sweeteners;
- And, less commonly, stabilisers, thickeners, colours and flavourings.

> *"We had a conversation about sweeteners, and actually, we would love to know more about [that]. And more transparency around sweeteners versus sugar."* Kirkcaldy, Workshop 5

For many, research on specific additives, and possible mechanisms by which consumption could cause physical and mental ill health, is necessary to answer one of their main questions: are some ultra-processed foods better or worse for you than others? What are the "good" and what are the "bad" UPFs? And can UPFs be eaten as part of a healthy, balanced diet?

> *"We also said about what are good UPFs and what are bad UPFs? So we want to know more about where they fall, what categories they fall into […] I don't think it's really clear, is it?"* Liverpool, workshop 5

A strong belief for many participants was that understanding the mechanisms by which UPFs might cause physical or mental ill health, and which UPFs might be higher or lower risk, would enable research into how UPF products could be made healthier. For example, if particular additives or classes of additives are shown to be problematic, that might involve researching how to replace those high-risk additives in products. If the issue is about the nutrient profile of the products, then research could explore the impact of adding additional ingredients (like fibre) to improve the nutrient profile. If the issue is the processing itself, then research could look at alternative ways of processing ingredients.

> *"Research into whether there could be changes made to the additives themselves to make them healthier. There are lots of different types of emulsifiers. There are lots of different types of sweeteners. Are some better for us than others? Understanding that kind of thing, or are there completely different alternatives to these additives that we could use instead to do the job of additives?"* Taunton, Workshop 5

In addition to thinking about specific additives, participants felt it was important to look at the effects of combinations of additives on the body. This includes where additives are found in combination within foods, as well as how additives are combined through consumption of many different types of UPFs across a whole diet, given that the average UK diet is now estimated to be around 57% UPF (and higher for children and adolescents)[29].

[29] Source: studies summarised in SACN position statement on processed foods and health, July 2023

> *"My concern today is that these additives have probably been tested individually to make sure that they don't cause immediate damage. I'm not sure if they've been tested in concert with each other, so how they interact with other additives? Because it's very often the case that it isn't an individual substance that harms you. It's actually the interaction of one or more of these things together."* Newham, Workshop 3

The need for a clear UPFs definition

Participants were asked to think about UPFs according to a definition based on the Nova system (Box 1), but they were also told that this was not a universally accepted definition. For most participants, this lack of a clear and agreed definition was seen as a stumbling block to both research and action. They wanted more research and discussion about the definition of UPF itself (including often thinking about public understanding of the concept rather than purely for research or policy purposes).

> *"Our top priority [is] to establish an agreed definition of UPFs. I mean that is complete groundwork that I think is required to build an understanding of UPFs as a whole, because if you don't have a definition, then how on earth do you build research upon something that's not agreed already?"* Taunton, workshop 5

Many participants who came together after the main dialogue fieldwork period, in September 2025 for a reconvened workshop with stakeholders, agreed. They said a definition was an essential precursor for policy makers, for industry and for people across society. Without this they thought it would be difficult to make any significant steps towards addressing the issues caused by UPFs (Appendix G).

> *"Unless we can agree on what UPFs are, then how can we get research which reflects back on the needs we have? How can we say, for example, how much UPFs impact on the nation's health and the NHS?"* Reconvened workshop

However, this was not universal, with some participants feeling that waiting for a definition on which everyone agrees would take too long and that action is needed now. Go to chapter 8 'Balancing risk' for more on this.

Environment

Generally, participants prioritised research into the potential effects of UPF on health, over research on the environmental effects of UPF production. Many participants were concerned about the impact on the environment of producing UPFs, but some found it harder to prioritise what research they felt should be done. They ascribed this challenge to the early stage of the current evidence, as well as the difficulty in separating out the environmental impacts of UPFs as opposed to other foods[30]. Participants generally wanted there to be more research to understand this, in relation to their concerns about:

[30] Participants in Newham and Swansea included the environmental impacts of UPFs in their final short list of research priorities. The other locations discussed this, but it did form part of their final prioritised list.

- The high use of plastic packaging in UPF products in terms of:
    - fossil fuels used to make plastics
    - plastic pollution and the effects of microplastics on the environment
- Fossil fuel use in food processing;
- Industrial farming to produce commodities which could end up as UPF products – and associated environmental impact of these farming methods (e.g. intensive chicken farming in the UK for ultra-processed meat products causing pollution of rivers, poorer soil health from monoculture cereal farming);
- Food waste – including whether UPFs lead to more food waste due to how these products are sold (e.g. often in multi-buy promotions). One group wanted to see more research on whether UPFs were positive or negative when it came to food waste – as a result of their longer shelf lives.

> *"I think the environmental impact as well is something that needs to be considered because a lot of these products are made on big industrial scales. How that would affect the environment, whether it's pollution or destroying of habitats."* Participant, Liverpool, workshop 3

4.2 Behavioural research

What ways of shifting towards healthy diets are effective?

Participants in all locations were interested in research on the ways in which people interact with UPFs and the forces which mediate these interactions.

Participants' highest priority research recommendations in this area can be grouped under the question: What ways of shifting towards healthy diets are effective? These put UPF consumption in the context of overall patterns of eating. Having heard from a range of specialists, participants felt that diets high in UPFs are not healthy, and so they wanted to understand more about how to effectively shift diets away from UPFs. Participants were interested in:

- The most effective education strategies (including for children and young people);
- Effectiveness of front of pack labelling schemes;
- The role of public food outlets in schools, hospitals and care homes for example, in setting the types of food consumed;
- The effects of regulation and/or taxation on industry behaviour.

> *"Making UPFs an accessible concept, including redefining it so that people could understand, and then… So part of that would be research of what works on labelling and how best to get that through, and what the government can do to educate people and help change their behaviour, but also and equally important is what the government can do to regulate these companies that are producing UPFs better."* Kirkcaldy, workshop 5

> *"Research into how industry responds to policy changes, and what could create change in the industry. Because the industries are the power that controls these UPFs*." Taunton, workshop 5

There was interest among dialogue participants in using research to develop a better understanding of why UPF consumption is lower in other countries than in the UK. They wanted researchers and behavioural scientists to learn from the effectiveness of international UPF-reduction policies. Participants felt there was much to be gained from international comparison - and international collaboration.

> "*It would be interesting to know whether Colombian people are now healthier through the coding [on labels] that they've got with ultra-processed [foods][31].*" Swansea, Workshop 3

What factors affect UPF purchase and consumption?

Underpinning this, many participants prioritised research which sought to understand the factors affecting current UPF consumption in the UK. They were curious about:

- What people already know about UPFs;
- The extent to which greater citizen knowledge (about the current evidence on health and environmental impacts) would affect UPF consumption[32];
- Whether price changes (including relative to less processed foods) would affect UPF consumption;
- The role of cultural attitudes and food practices in differences between UPF consumption of different groups;
- Motivations for buying UPFs;
- Barriers to healthy diets.

> *"More research done into different ways to change behaviour. We need to understand why people are drawn to UPFs in the first place, to understand their behaviour, to change policy, there's no point changing policy and then we get it wrong and they just carry on as before. We're missing the mark of the why".* Newham, workshop 4

> ***"**What will happen if more people knew about UPFs and their impacts? This is a really key piece of research if we want people to understand what UPFs are, and why understanding what's in them matters to all of us."* Middlesbrough, workshop 4

This resonates with the results of the nationally representative survey with 59% of the UK population wanting to find out more about UPFs (particularly younger adults, those in ABC1C2 socioeconomic groups, those with children and Asian/ Black ethnicities).

Among these sections of the population interested in further information, the survey shows that the most common areas on which they want to know more are:

- Detail on which foods are and are not defined as ultra-processed (53%) and

[31] Participants heard from specialists during the dialogue about policies targeting UPFs in different countries, including Colombia.
[32] Participants in Liverpool and Middlesbrough most strongly emphasised research on existing public understanding of UPFs in their research priorities.

- The evidence base regarding potential health impacts (52%).

4.3 Structural research

How to make healthy food more affordable and accessible

In their deliberations, participants also considered how broader societal factors affect the production and consumption of UPFs. Many were interested in research which further explored and made these visible, as well as research into what could change current food systems.

The highest priority area for research at this societal scale was about affordability and accessibility of healthy food.[33] Participants were interested in research on how to make healthy foods cheaper. They reflected on research which could inform policy to change the proportion of UPFs to minimally processed foods in diets. Research topics might include:

- Taxation strategies on UPFs;
- An exploration of the link between accessibility and affordability of fresh food – for example whether more UPFs are available in more deprived areas, the impact of the decline of the high street on foods available, the impact of the rise of food delivery platforms and widespread marketing and advertising of UPFs;[34]
- The effectiveness of specific schemes aiming to make healthy foods cheaper or more accessible e.g. community food hubs, local food production, allotment schemes;
- The impact of trade with other countries on how much UPF is available.

> *"Is it worth conducting research, not so much on the UPF itself, but finding out how to make more time dedicated to making healthy food and where to make that money back. Whether fresh food and produce is subsidised or included within your Universal Credit, so you don't have to pay as much for the fresher stuff."* Kirkcaldy, Workshop 5

> *"[Research on] the impact on packaging and marketing on UK consumption of UPFs, because there's so much money behind marketing and it's so aggressive and accessible in terms of promotion and pricing towards vulnerable people. So, we just wanted to identify the correlation between the marketing and vulnerable people's consumption."* Newham, Workshop 5

Some participants[35] also wanted research to focus on the impact of high UPF consumption on the NHS (including modelling this in future if consumption remains high), especially where they were concerned about pressure on NHS budgets.

[33] By which participants meant minimally processed, nutritious foods which are not high in fat, salt and/or sugar
[34] Research which focuses on the impact of UPFs involving vulnerable members of society and a range of cultures was a strong emphasis in the research priorities of the group of participants from Newham.
[35] Most specifically in Kirkcaldy, Newham and Middlesbrough

Who has power in the food system?

Throughout the dialogue, participants were asked to consider power in the food system – who has it and who does not, and how this power is used. Participants were interested in research which looks at:

- Government independence of and food manufacturer influence on government policy;[36]
- What power farmers have in the food system;
- Different models of responsibility to prove the safety of UPFs, for example whether the onus is on manufacturers to prove their product is safe;
- The influence of ubiquitous UPF availability and advertising in our food environments on consumption.

> *"I think it would be interesting to research how much influence the Big Four [agri-businesses] have on our government policies and spending."* Swansea, workshop 5

> *"I know it's not in (the food industry's) best interests, because they make the food and that, but if it is potentially harmful for us, then they should almost have to prove why it's not harmful, not the other way around."* Swansea, workshop 5

Additionally, participants wanted to see independent research on UPFs. As well as being a research principle (see the following section), some participants felt that research could be done to investigate sources of research funding and conflicts of interest, and the impact this has on the availability and affordability of UPFs.

More on participants' discussions of power in the food system is covered in chapter 9 in Part 3 of this report.

4.4 Research fundamentals

Principles for research

Several principles for research emerged from across the deliberations. These are drawn from what participants found particularly important informed by their own values, and the discussions that took place across the dialogue. They concluded that research should:

- Include long term studies (for more, see chapter 8 on balancing risk);
- Create research partnerships and collaborations nationally, for example academia working with NHS organisations, and internationally, for example cross-country academic partnerships;
- Include and account for diverse populations, in terms of any differences according to age, gender, race, ethnicity and pre-existing health conditions;

[36] This issue came out as a particular priority in Swansea.

- According to most participants, be independent of industry influence; however a few felt that industry has a responsibility to fund research on UPFs, given the proliferation of these products and their potential adverse impacts;
- Be transparent about methods and findings;
- Plan and account for potential changes in eating behaviours over time;
- Be tied to addressing key challenges like rising diet-related diseases or health inequalities.

Barriers and enablers

As part of the full-day in-person workshops, participants built on research challenge areas about UPFs to develop their research priorities.[37] The project team had grouped and themed these challenge areas from a previous online task in which participants identified the challenges which they felt more research could help solve. Participants began by developing a vision for a near-future (2030), where the issues with UPFs are resolved. They worked backwards from there to identify the research they felt would help produce the knowledge needed to arrive at their desired vision. They were asked what barriers might get in the way of such research happening, and what might enable it to happen. There was clear consensus across all groups and locations[38] on these barriers and enablers which are set out in Table 1.

Table 1: research barriers and enablers

Actors	Potential research barriers	Potential research enablers
Government	• Multiple departmental responsibilities for food • Lack of political will to change the food system • Politicians' own financial investments in food manufacturers	• Government backing for initiatives, pilots and tests • Government targets • More money into research budgets • Economic arguments as catalyst for more research
Industry	• Corporate funded research 'drowning' independent research • Corporate messaging on fat, salt and sugar as most important /discrediting UPF concept	• Research funding paid for by taxation on industry • Shareholder pressure • Industry funding for research[39]

[37] After their second online workshop, participants were asked what they thought the big challenges or problems are that more research about this topic could help solve, thinking about 'what matters to you about UPFs?', 'What don't we know yet?' and 'What do we need to know about UPFs to make decisions?' The list of research areas summarised from participants' individual responses is in Appendix F

[38] Participants often spoke about barriers and enablers to both action (by government or industry) and research, in similar terms. The table presents what was discussed about research, but similar points were made about what might block or enable new government policy, for example.

[39] As with footnote 8, some participants saw industry funding for research as an enabling factor, while others saw it as a barrier to independent research (either happening in the first place, or its findings gaining traction).

People in society	• An absence of public demand for change and/or a feeling of powerlessness • Lack of willingness to participate in research	• More public involvement in research (including public dialogues like this) • Public pressure for more information

Ways of conducting research

Participants were introduced to the main types of research, and some different methodologies, as well as ideas about standards of evidence, in a specific briefing as part of the process (Appendix I). They also heard about research programmes from researchers who spoke to them at the in-person workshops.

Many participants felt that their involvement in the public dialogue had helped increase their knowledge and wanted others to have the same opportunity. They saw certain types of research as a way to raise awareness about social issues and bridge the gap between scientists and publics. These included, for example, citizen science projects or using social media.[40]

> *"Citizen science. So, involving a mass of people looking into this thing as part of their daily routine, which spreads as well so that everybody is more informed at the end of it. Like we are."* Newham, Workshop 4

Participants were also interested in the use of AI in research. Those who discussed AI technologies felt they could be positive, feeling that they could be deployed in projections and modelling, combining different types of data. They thought this could speed up how quickly research is done and potentially reduce researcher bias.[41]

> *"Faster, unbiased research results. Can collect so much data, use for prediction and modelling scenarios and raise awareness faster."* Swansea table group (on why they chose AI-driven research as a priority)

A few participants also spoke about randomised control trials, including twin studies and studies done in closed settings like prisons.

> *"They could do some focused work over time comparing the results of people eating UPFs, and non-UPFs. What happens? Is it better or worse for our health? Is it better or worse for the environment. Surely that's possible."* Belfast, Workshop 5

[40] Some participants were particularly positive about qualitative research methods, in which they felt human research subjects were more engaged (than surveys for example) and from which they felt more impactful stories and findings could come.

[41] Discussions about AI took place in Swansea, Taunton, Belfast and Liverpool.

5. Why these research areas?

In this chapter we describe why participants arrived at the research areas that they prioritised by the end of workshop 5. In their final workshop, participants were asked to give a rationale for each of their group's final priorities. Alongside these participant-given rationales, we also draw on our analysis of the discussions they had to reach their final priorities.

Most commonly participants chose their priorities based on the scale of impact they felt the research could have, either through directing government action, providing evidence to the public, or supporting changes industry could make. We outline some other rationale which participants used to come to their decisions in the sections below.

5.1 Scale of impact is the most common criteria

By far the most common criteria for selection of research recommendations among participants was the scale of impact they felt the research could have to address societal needs. This view was in part arrived at due to participants shock and surprise at the relative prevalence of UPFs in UK diets compared to other countries (see chapter 1).

> *"How can we be the country that's second only to the US in the world that so much UPFs in our diets. That's really shocked me. That's surely going to have consequences for us, if not now then for future generations."* Swansea, Workshop 5

The societal needs participants considered included improving public health, reducing environmental harm, and addressing social inequalities which they identified as being exacerbated by a food environment which prioritises UPFs and cheap and unhealthy foods.

> *"More disadvantaged communities have less access and fewer opportunities to purchase healthy food with affordability (being) more of a barrier. Have more restricted food environments so that those most vulnerable to impacts of UPFs are supported. Research should focus on creating tailored solutions to help this population."* Newham table group

The criteria tended to be targeted through three main pathways involving government, society and industry.

Government

Many participants prioritised research which they felt could be used by government to decide whether it should take action to reduce or restrict UPFs and what action should be taken. They felt such research would inform evidence-based decision making, and above all ensure that the change they suggest needs to happen to address UPF challenges actually does so.

"We need specific evidence to support government policy development and decrease the impact on everyone's health. We need to free up NHS resources for other things." Kirkcaldy table group (on why they chose research on the impact of UPF consumption on the NHS)

"Because, it will drive what action the government takes and people would know where the actual risks are (not just have to make assumptions) AND what industry would need to do." Liverpool table group

Society

Many participants prioritised research topics which they felt could support public awareness and decision-making over their food purchasing decisions and engagement in food-related issues. These were agreed on because of participants':

- Concerns for public health, particularly on the health of children and young people
- Concerns for the environment and the impact of these products on climate change
- Views that society has ceded control to the food industry over what foods are available and affordable to buy – and they want society to take back decision-making power on these topics.

"We need to understand the role of education, information in schools to tell them about what they eat… cumulative research" Belfast table group (on why they chose research on whether increased knowledge about UPFs will change behaviour)

"Research is needed on the role of industry in social media, with research into misinformation and the power of influencing, because the consumer is excluded, confined in their choices, and manipulated for profit." Middlesbrough table group

Industry

Many participants prioritised research which they felt would support the reformulation of UPF products, based on understanding definitively whether there is a causal link between UPFs and poor health outcomes, and the mechanisms by which this operates. They wanted to understand if products could be reformulated whilst also retaining benefits in terms of convenience and affordability. This is a trade-off many made throughout the dialogue. UPFs help people with busy lives and limited income, but that shouldn't be to the detriment of their health.

5.2 Other rationale for participant research priorities

Beyond scale of impact, some participants also considered other rationale for their choices, including:

- Equity: research focusing on the most affected or most vulnerable groups;
- Likelihood: research areas they felt were most likely to lead to impact;

- Speed: research they felt helped save time, or learn about the issues more quickly;
- Influence: research they felt removed barriers or highlighted power imbalances).

> *"This research may help tip the balance, help arrive at policies like whether to subsidise farmers to produce more locally, may enable the development of innovations (e.g. wonky fruit) for cheaper food and less waste and could suggest community initiatives/ practices to reduce costs and improve the availability of good food in local areas."* Taunton table group (on why they chose research on how to make healthy food cheaper and UPF more expensive)

> *"It will give us a quicker result, and we can replicate the research, we can learn what's gone well in other countries".* Middlesbrough table group (on why they chose international collaborative research)

> *"To prevent excuses for inaction and use as a foundation for research, regulation and labelling."* Taunton table group (on why they chose research on an agreed definition of UPFs)

Participants did not tend to talk about prioritising research based on how much existing research there was on the topic or filling research gaps. To some extent this may have been a feature of the dialogue design. For example, while participants heard from local researchers about recent or current research projects, and an overview of UKRI's current research funding on food, there was no attempt to give participants a systematic or exhaustive map of the current state of UPF research. Additionally, they were not asked to consider research in funding terms e.g. allocating an imagined funding pot.

Part three: UPFs in the food system

Participants making sense of UPFS: Workshop 5, Newham

6. Journey through the dialogue

6.1 Attitudes to UPF and how they changed

In this chapter we describe how participants felt as they progressed through each stage of the dialogue. Whilst each participant had their own journey, broadly speaking participants started from low understanding of ultra-processed foods as a definition, and quickly felt negative and alarmed about them as they learnt more from specialists. As participants explored more evidence, trade-offs and case studies, and deliberated on these with their peers, they engaged with the complexity of the topic. This in turn brought participants to a final place of seeing the importance of further research – either to catalyse and target action they felt was needed, or to get the clearest evidence about whether and how UPFs harm health.

At the beginning of the process, participants had quite a low baseline understanding of UPFs. Most had heard of processed foods but not ultra-processed foods and didn't always see the difference between the two. In the early stages of the dialogue participants conflated UPFs with "junk food", "fast food" and HFSS.

> *"I hadn't really heard about it at all, in the sense that I just […] knew about processed foods, and just assumed it was all the same type of thing. Processed foods aren't necessarily good for you. It's fast food, it's ready meals, it's all those types of things."* Swansea, Workshop 1

When asked to speak to family members and friends about UPFs, participants also tended to report back similarly.

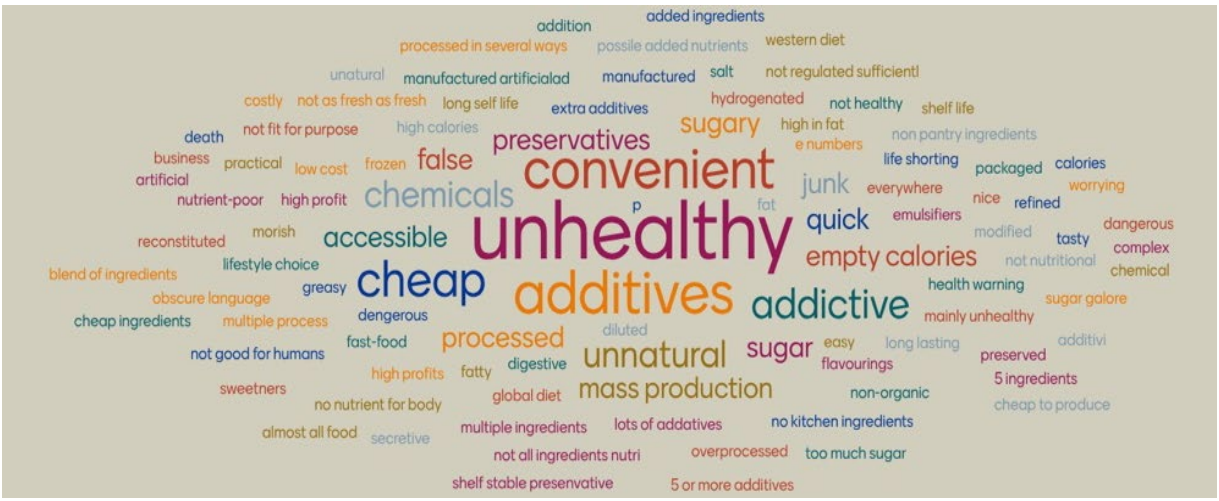
> *"I spoke with my work colleagues this morning, and the word ultra-processed food didn't mean anything to any of them. It's processed food, but not ultra-processed food. So obviously, explaining a little bit to them, they were all quite shocked that yeah, like a lot of everyday food is actually ultra-processed food."* Middlesbrough, Workshop 2

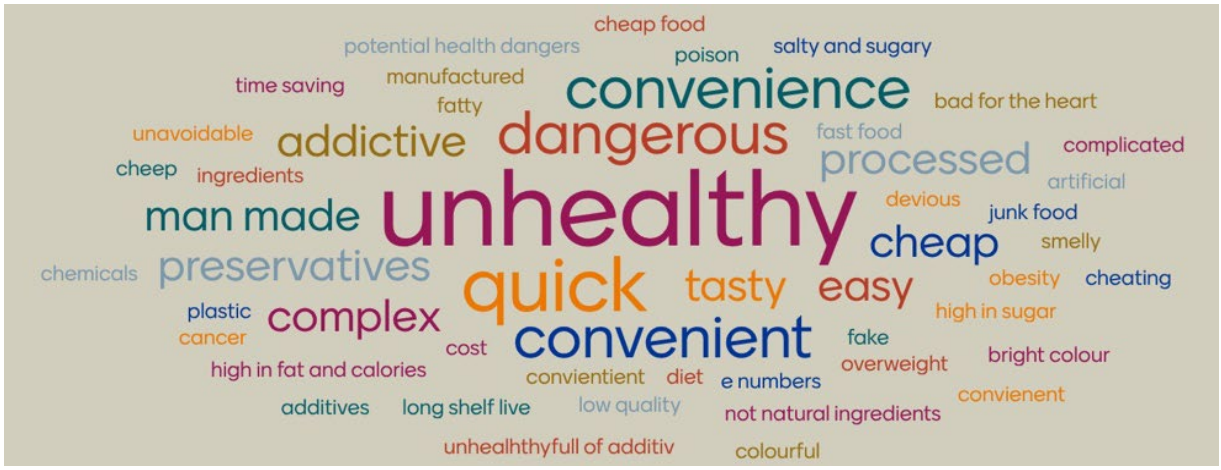
As people learnt more about UPFs as a concept, they initially felt very negative about them. As with many dialogues where people are learning about something that is new to them, some participants went through a 'dip' in which they realised what they don't know, which some found worrying.[42]

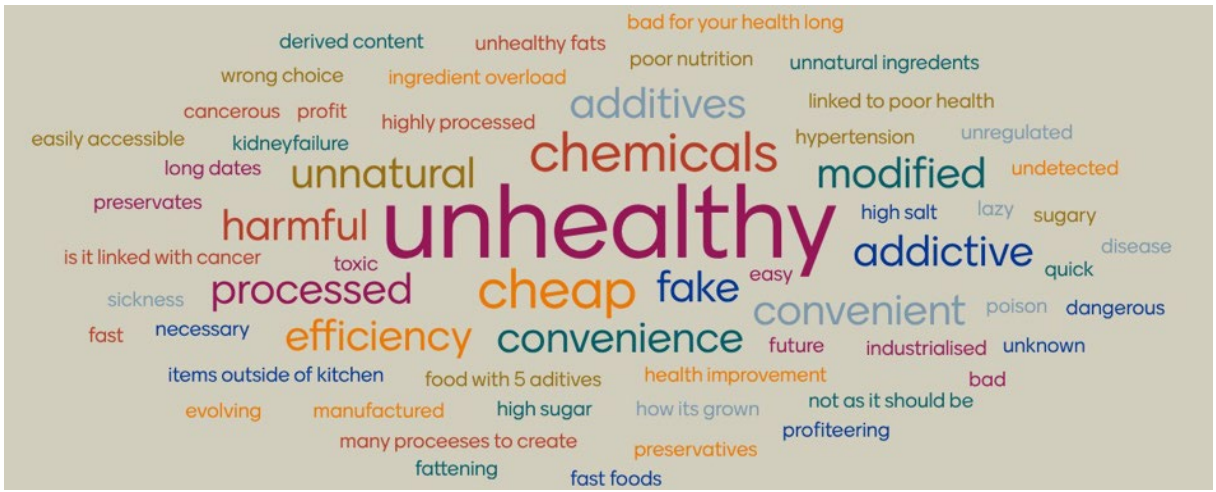
> *"What matters to me is that going through this experience I don't even know exactly what is going into UPFs and that is a scary thought."* Recollective

At the start of participants' second online workshop, they were asked to respond to prompt questions using Menti.[43] Participants were asked to 'use up to three words to describe what UPFs means to you'. The resulting word clouds (Figure 3) are presented below.

[42] This is common in dialogues, and facilitation teams are trained to look out for and provide support for participants for whom talking about the topic can cause anxiety and fear.
[43] This is a live polling tool HVM uses in workshops run by mentimeter.com







These word clouds show a snapshot of participants' general sentiment towards UPFs partway through the process. It is clear that views were more negative at this stage, with "unhealthy" as the largest word in each wave of fieldwork. More strongly negative words such as "dangerous", "harmful" and "addictive" also appear frequently.

Some participants focused on common ingredients with words like: "additives", "preservatives", "sugar", and "salt". Some participants were also thinking about trade-offs, with words like: "convenient", "cheap", "easy", "quick" and "tasty".

As the dialogue progressed, and participants explored case studies (Appendix I) and heard more evidence, they tended to express how unclear they felt about UPFs again. Exploring case studies on vegetarian foods, alternative proteins, and to some extent packaged breads, were points at which the complexity particularly came to the fore for many. This caused a very few participants to reject the UPF concept entirely, as over-complicating and lacking in clarity.

> *"What am I supposed to think about UPFs? I get that they are very processed foods, but is that harmful or not? Do they have an impact on the environment or not? I'm feeling fairly confused this evening and am not sure whether we need to think about UPFs as such."* Kirkcaldy, Workshop 2

For most others the lack of clarity solidified their understanding on what UPFs are, what is known, or not known, about their effects, and cemented their views on the need for more research to provide clarity.

> *"I think it sums up the thing about ultra-processed foods in general, is that something being ultra-processed doesn't necessarily mean it's unhealthy. They're not synonyms. You could have something that's ultra-processed that's healthy, but you can also have something that's unhealthy that isn't processed."* Newham, Workshop 2

Throughout the dialogue, participants continued to ask questions to which speakers responded that there aren't yet clear answers. These included, for example: are all UPFs "bad"?; What is it about UPFs that explains correlations with poor health?

Box 2: one journey through the way UPFs are defined

"I think the terminology at first was clear and then got lost the more we've done this because ultra-processed foods wasn't necessarily a term I'd heard. It was just processed foods. Then we heard ultra-processed foods. Then I thought that meant it was ultra-negative. It seemed like a bad thing. Then there was explanations of where ultra-processed foods can be used in a positive way and that some things do need to be processed. There was the vegan example of loads of veg is being processed in a good way. Then there were conversations about that being negative. It was like I'm getting lost around this terminology of ultra-processed foods. I feel like now if I saw something was ultra-processed, I'm not confident in the sense of ultra-processed means bad. I want a clear distinction on when something's bad and when something's good." Taunton, Workshop 3

This complication of the UPF term, through hearing evidence from a range of specialists, and deliberating with their peers, also enabled more nuanced discussions between participants. For example, on the role that UPFs have to play in the diet, and the complexity in providing nutritional advice on the basis of uncertain scientific evidence. The dialogue between two participants is helpful in understanding the subtleties of how participants discussed the uncertainties and how they should understand advice given on diet and nutrition, and the role of the food industry in the context of UPFs.

Participant 1: *"What shocked me was the advice that we should still eat ultra-processed foods as long as we eat it with vegetables, or it encourages us to eat other healthy foods. Because I thought the advice would naturally be that we should eat less of them, or cut them out altogether. It's helping me to see diet as a thing of moderation and reality. That was very edifying."*

Participant 2: *"Yes, because to me, that doesn't sound right because they're trying to incentivise eating healthy, but then they're trying to say, "Oh, yes, you can still eat the processed foods. No, it's fine." We all know deep down, it's not fine, because every time you eat ultra-processed food, you feel a bit like, "Oh, why did I eat that?" I feel guilty like, "Oh, I shouldn't have eaten that," because your body's telling you it's not designed for your body.*

Facilitator: *"You don't agree with the advice of mixing UPFs with healthy foods?"*

Participant 2: *"No, no way in hell. Because I think what it was, when I said, "Oh, cereal is ultra-processed," [the speaker] agreed with me when I said it. Then he said, "Oh, but if you put fruit in it and other things like that, it's okay." I'm thinking, "It's not okay, though, because if you really knew the ingredients in the cereal, it's mainly sugar and all these E numbers and all that. It's not good for you. […] The companies, they're pushing you to eat their stuff, the ultra-processed stuff, which just makes their profits higher. They don't care about your health. They just care about their pocket."*

Participant 1: *"I feel like perhaps they're not talking about Crunchy Nut or Cheerios. They're probably talking about, for example, Bran Flakes. Yes, it's still probably ultra-processed. However, it's a healthier alternative, which is rich in fibre. If you add things like blueberries or raspberries to it, it's probably better or less time-consuming than me making oats on the stove. I don't think they're talking about Cap'n Crunch or whatever kids' cereals are out there."*

Dialogue between 2 participants, Newham, Workshop 2

Unexpectedly, there was some extension of the UPF concept in a minority of participants' thinking. For example, a few participants linked the concept of ultra-processing to agricultural processes and methods (like use of pesticides). This was particularly apparent in conversations about the environmental impact of UPFs, where, for these participants, ultra-processing starts on the farm and also includes processing used in packaging e.g. edible waxes on fruit. This was often referenced in the context of people not having full knowledge of the processes used to produce the food they were eating.

"Even if you think you're eating something healthy, you don't know what the farmer's using. You don't know what pesticides are being used. You don't know what the processing, packaging things are. You don't know what the crop… what the animals are being fed." Belfast, Workshop 1

By the end of the dialogue, participants tended to be in either one of two camps as set out in Table 2:

Table 2: Position on UPFs in relation to research	
Position on UPFs	**Attitude to future research**
1. Negative to very negative about UPFs on health and environmental grounds'	Need more evidence to catalyse and legitimise change and decide exactly how and where to drive change.
2. Sceptical of blanket UPF concept. Unclear about whether they are harmful or not, which ones and to what extent.	Need more evidence to gauge the size of the problem. Particularly interested in research on sub-groups of UPFs.

In general, participants' attitudes to research on UPFs mirrored the journey of their understanding of the concept. Towards the start of the dialogue participants felt that government should be taking immediate preventative and regulatory action on UPFs. Later, more people felt that more research was important – to direct what action is taken, and to fill gaps in knowledge.

Some participants spoke about changing their eating or shopping habits in response to what they were learning. For many this meant paying more attention to back of pack labels in shops, or the general offer and amount of UPFs on sale. Some shared that they had decided to cut back on UPFs or to cut out particular products. Some even spoke about using apps that categorise foods according to the Nova system.

> *"I must tell you, in that break, I thought, I'm going to have a snack.' I went in the fridge, I had strawberries. I thought, "That's a really healthy snack." I washed the strawberries, and I put them in a bowl. I thought, 'I'm going to have some cream on that.' I have a spray cream in the fridge. I actually, for the first time, looked on the back of this spray cream. I nearly died when I saw how many ingredients were in it. For me, having a snack of strawberries and cream, it wasn't, it was strawberries and additives. I won't be buying this anymore."* Middlesbrough, Workshop 2

> ***"**I'm glad I'm aware of the Nova system now, because I think I'm going to look into it more. I think one of the speakers mentioned that there's an open-source website or app at the moment where you can better track specific foods and where they land on the Nova system. It's definitely something I'm going to keep in mind going forward when I'm next day in my food shop."* Liverpool, Workshop 1[44]

[44] The app referenced was Open Food Facts.

7. Trust and UPFs

Trust was a key concept for dialogue participants, particularly faced with the uncertainties and complexities of UPF definitions and evidence gaps. Trust was a specific focus of discussions at the end of workshop 1 but remained a theme throughout the dialogue particularly when participants thought about who is trusted to deliver research, and who is trusted to use that research for policy and action. In this chapter we see that credibility is a foundation stone for trusted information; that the profit motive diminishes trust; and that research driven by public benefit and conducted by academic researchers and specialists is the most trustworthy source of information on UPFs.

7.1 Credibility: a foundation for trusted information

Trust is described across all the locations as being based on the credibility of the organisation or message delivery agent. A consistent response to questions of trust was that it is rooted in transparency, independence, and motive. Participants repeatedly assessed information and institutions through the lens of "who benefits" and whether sources appear unbiased, evidence-based, and open and transparent in their dealings with society.

Participants defined trustworthy organisations and individuals using words and phrases such as:

- Credible
- Have trustworthy credentials
- Independent
- Have nothing to gain
- No agenda
- Honest
- Open about biases
- Transparent
- Backed by studies
- Evidence-based
- Use 'proper' evidence
- Use "real" and "verified" science to give confidence in the outcomes
- Based on expertise
- Authentic
- Genuine
- Have your best interests at heart
- Tell the truth
- Reliable
- Transparent
- Not funded by companies
- User-friendly and factual

These words and phrases focus on credible evidence rooted in robust, peer reviewed, scientific research which is not influenced by those with vested interests in the outcome, or a profit motive. When the same evidence comes from a number of sources it is also seen as more trustworthy than a single source.

> *"It works for me when a lot of researchers agree on something from different trustworthy universities or organisations, as long as they're not the food companies themselves, because you don't know, they might have been doing propaganda."* Taunton, Workshop 1

Equally - credible sources are those which cite data such as statistics, which are in a paper or an article.

> *"I feel like being shown physically, like statistics and things, instead of someone just telling me on the news or something, I'd rather have proper evidence, maybe something like that, that I'd properly trust."* Liverpool, Workshop 1

Many participants stressed "having nothing to gain" as being a key factor in trustworthiness. They saw this being enacted by NGOs and charities talking about the relationship between food and ill health. A few participants said that trust is more readily granted when information aligns with lived or social experience.

> *"I would trust an organisation like the British Heart Foundation because they've got nothing to gain from not telling the truth, nothing at all. I'd also trust people who are working in areas that are more or less aligned with the things I believe in. I'd trust someone who believes the same things that I believe."* Middlesbrough, Workshop 1

> *"You believe stuff parents say whether it's proven or not."* Liverpool, Workshop 1

Trust in safe and healthy food comes from, for some participants, knowing the source of that food, and what is in the food. Many referred back to how food used to be bought prior to the rise in supermarket shopping.

> *"If you went and bought things like people did years ago, where you went to a fishmongers for your fish, you went to the butchers for all your meat, you would trust it because they know where they're getting their products from. Obviously, you couldn't ask someone in a big supermarket, "Where has this come from?" so it's harder to trust that."* Liverpool, Workshop 1

7.2 Profit and transparency: concerns shaping trust

Participants were concerned about profit motives driving misinformation on food, including UPFs. They shared a suspicion that information and some policies, or lack of policies, on UPFs are only motivated by profit, and are therefore not reliable.

> *"In my head, the only thing the big companies are after is profit. They don't care about your health. They don't care about all of that. All they care about is, "How much money we can make," and any way possible to do it that's cheap for them."* Newham, Workshop 1

Many participants mistrust information because there is a lack of transparency: on ingredients, and on labelling, and that some processes are hidden from public view because:

- Detailed information on ingredients is not always shared;
- And if it is shared, it is not clear what the ingredients listed are;
- The labels mask the truth by saying that the food is healthy, contains "protein", or provides "energy" or "strength" when this is not the full picture.

In describing a conversation as part of the pre-task before workshop 3, to chat to family and friends about UPFs, many raised the issue of labelling. They spoke about

the clarity required, and the idea that if labels could be trusted then people could make informed choices when they shop.

> *"My husband has heard of UPF's but isn't entirely aware of what they actually are. Ideally (we both) would like to reduce the amount of UPF's but would appreciate clearer labelling on products so to avoid them whilst shopping. We also need to know that we can trust what's on the packaging. Is it really healthy when it says it is?"* Response to a Recollective activity

7.3 Who can provide trusted information?

People spoke of receiving information on food and diet, including UPFs from:

- Friends and family;
- Advertising, marketing and information on food packaging;
- Media/ social media;
- The NHS and government.

Participants initially trust friends and family on food and diet but also wonder where they are getting their information from, and if it can be trusted. Advertising, marketing and information on UPF packaging (including labels) are treated with suspicion, even by those who said that they do not routinely check food labels. Participants used words and phrases such as "manipulative", "subtle", "sly", "crafty", "strategic", "subconscious influencing" to describe this information, and it is not trusted.

There were differing views on whether the mainstream media can be trusted to provide reliable information on UPFs. Many participants cited the BBC when they said where they get their information on UPFs from. For some this is a trusted source of information, for others, there is a lack of clarity on whether the information being shared is correct or not, particularly when two mainstream media channels contradict each other.

> *"Because you can't trust it when ITV and BBC say two different things sometimes. It's hard to know what actually is the truth."* Taunton, Workshop 1

Participants said this causes confusion and leads to misinterpretation of the information. Some said they trust mainstream media more if the source of the article or piece cites research which they can look up. However, participants said that mainstream media is far more trusted than social media, which they describe as a, "free for all". Despite this, many said this is mostly where they get their information from.

> *"I use social media for everything. Instagram, Snapchat, Facebook, all of them. I get everything from there."* Swansea, Workshop 1

They cited specific platforms which they felt were particularly unverified and therefore unlikely to be sharing trusted information e.g., Tik Tok, Snapchat and Facebook. The statement set out in Box 3, explains one participant's view, but it describes many people's perceptions of how social media presents UPFs.

Box 3: UPFs and social media

"We see a lot of things on social media. You could say that Coca-Cola is a UPF, but there has been a big campaign on the social media saying that Diet Coke or Coke Zero is very good for your diet, tackling those sugary cravings. How can that work when it's clearly an ultra-processed food? I wouldn't say very harmful, but when the normal Coke is labelled as harmful and the sugar-free option is labelled as good, how does that work? There are debates, those happening on social media. I would say I'm exposed to a lot of them. I wouldn't trust most of these because you know how things work on social media." Belfast, Workshop *1*

In relation to the government and the NHS, participants expressed mixed feelings. Some feel that public communications are helpful and should support people to make good decisions about their diet and health. However, given that the evidence on UPFs is not clear, they doubt whether these channels can be helpful – unless and until more research is conducted and supported. The narrative described in Box 4 sets out what many expressed in the dialogue, that NHS and government information is important – but is not necessarily trusted because there is a suspicion that advice is given on the basis of industry lobbying.

Box 4: Government and NHS communications

"I also, like others in this group, have mainly been influenced by NHS advice or government recommendations. To be quite honest, I don't trust that at all. When we think about who has been influencing the studies, the government benefit from these big companies hugely, so it makes sense that they would take on board the studies that they want to present, which are obviously going to give results that are going to back up their products, quite frankly." Middlesbrough, Workshop 1

Participants said the best source of information about ultra-processed foods (UPFs) is from the researchers who study these products. They trust these sources because they see them as credible and unbiased.

Even though participants don't usually get information from academics and specialists, they consider them the most trustworthy sources for UPF information because they have:

- Verified credentials to work in the field;
- Transparency in working methods;
- Robust data gathering methods in place to form their conclusions;
- A system of peer review in place.

> *"I trusted the information we had from the specialists last week. They had the credentials and were open about any biases they might have. They were knowledgeable, it feels credible. Wouldn't it be good if we could have direct access to this stuff?"* Kirkcaldy, Workshop 2

Our analysis of participants' deliberations in *Making Sense of UPFs*, show three principles of trust in research which stem from discussions throughout the dialogue. These principles are set out in Figure 4.

Credibility: ensure sources of information on UPFs:

- Are driven by academic research;
- Use statistics, data and a clear narrative about why their research matters, and how it will help society, bringing public benefit;
- Are verified by peer research;
- Are verified across a number of sources.

Transparency, using clear communications and with the expectation of openness in all relationships.

- No hidden agendas – it is clear who is funding the research and why;
- Nothing which suggests a manipulation of the facts or evidence – only say a product is 'healthy' if you have evidence to back up the claim.

Demonstrate that **public benefit** comes before financial motivations by:

- With a focus on research done by publicly funded institutions such as UKRI;
- Build on what is learned from the research;
- Use research to challenge the current food system, ensuring people have access to a range of foods in their local community, not predominantly UPFs.

Figure 4: Principles guiding trust in research and policy on UPFs

8. Balancing risk

In this chapter we explain that there was a diversity of views on the standards of evidence required before policy development or action is taken on UPFs. Some frame their approach to the need for research to be done now on the time it takes for policies to be agreed and implemented and a strong sense that action is needed immediately. Others feel a more substantial body of evidence is required before anything is done in the policy sphere. We discuss how participants feel less additional research evidence is required for some policy interventions than others (e.g. providing more information or guidance on UPFs). We end the chapter by sharing participants reflections on harm.

8.1 Approaches to risk

When considering potential harms and their likelihood in relation to UPFs, there are different views across the scientific and policy communities on the acceptable standards of evidence required to warrant different actions (or inaction).[45] Participants were asked about their views on acceptable standards of evidence in the context of their discussions about research priorities on UPFs and their link to policy implementation.

They considered the extent to which they would want conclusive evidence before any policy intervention took place, or action now despite unclear evidence. They were not asked about their views on any specific policy interventions, as part of the dialogue process, but these were discussed where participants brought them up.

Precautionary principle approach

Overall, there was no unanimous view on the standards of evidence that were required for action to be taken around UPFs. Many participants felt there was enough evidence about the harms caused by a diet high in UPFs to warrant action now. They took a precautionary principle approach to risk management, whereby action is taken on the basis of a credible reason to believe there is potential for harm, at a reasonable likelihood, even if the scientific evidence isn't yet completely clear.

> *"Do we need to prove causation before policy change? This relates to questions about the threshold for evidence, why is it so high when we all feel that we know UPFs are bad for us? There seems to be enough evidence around that says that, but we're told that there isn't."* Newham, Workshop 5

> *"Even if there isn't 100% substantial evidence now and it's still being looked into and stuff, surely it's a no-brainer to still put these things in place as a preventative measure rather than just wait for evidence that might be more conclusive."* Liverpool, Workshop 3

[45] Food, diet and obesity committee, Recipe for Health: a plan to fix our broken food system (2024).

> *"Definitive proof is our aim, but not necessarily our trigger for action."* Swansea, Workshop 5

Acting on perceived harms now

Some participants framed their comments around their distrust in food companies, feeling that calls for further research could be weaponised as a delaying tactic for making changes that would interfere with corporate operations and profit. Some wanted an approach to managing risk whereby credible potential harms should be acted on, even if that meant the possibility of a policy or action U-turn later.

> *"Most of the feedback about this is that it's not good for us. Why isn't the government pulling that NOVA scale, forcing manufacturing straight away to use that NOVA scale now. Then if they get told in ten years down the line, that ultra-processed foods are okay, well, manufacturers can take the damn label off."* Liverpool, Workshop 5

> *"I think that by insisting that all research must be complete could just be used as a delaying tactic by the food manufacturers. 'Oh, we haven't got the full research'."* Middlesbrough, Workshop 5

> *"We know they're unhealthy. We knew tobacco was unhealthy for 30 years before we did anything about it. It's just a question of the people with the power holding off on doing anything until they're forced to do it. Just get on with it, as far as I'm concerned. Enough is known, and it's just an excuse not to actually do anything."* Taunton, workshop 2

These conversations were about health impacts in the vast majority of cases, but a few participants spoke about environmental concerns. In this context, participants felt that the research was at an early stage and unclear, but that action was needed because the climate crisis meant that society doesn't have time to wait for all the evidence.

> *"I mean researching [the environmental impact] forevermore in the hope of finding a direct link, I think will never happen, it will be a fallacy and a delaying tactic that potentially the food industry are hoping for. Because they'll always push back saying, 'but you can't confirm there's a link'. So I think it needs someone strong to make the decision to say we need to make these changes and we'd like you to come along with us on these changes."* Belfast, workshop 5

Full body of evidence required

Many other participants felt that it was wrong to implement change or make policies without full evidence of causation. These participants were broadly split between those who believed this as a fundamental value about the role of government and the process of scientific discovery, and those who took the pragmatic view that it would be very difficult for government to implement any change without the strongest evidence behind it.

For those who hold this as a value for policy making, a belief was expressed that all policy needs to be made based on the strongest evidence. Some felt this was essential for reassurance that the right course of action is being taken,

> *"I agree with evidence first. I think that makes sense. […] Until they've collected everything they feel they need to know, I don't think they should be actually implementing anything at that stage."* Middlesbrough, Workshop 3

> *"We can't make sound policy if you don't have the evidence to back it up. We've got a little bit of evidence now, yes, but it's not really 100%. I don't think we can do a lot at the moment, until we get some harder evidence, because changing policies and things like that, that's a big thing."* Taunton, Workshop 5

And there is accountability embedded into the decision making process.

> *"I would feel you need to have all the evidence before you make any massive change. I feel like otherwise, down the line, when things go wrong, who's going to take responsibility?"* Belfast, Workshop 5

Those who believe government needs a robust evidence base in order to take action argue that this is required to understand where best to make any regulatory change. They also believe it will help to overcome vested interests within industry. They also feel this robust evidence base will help to bring the public onboard with any changes to diet, food environments and what food is available.

> *"I also think the problem is that people are not going to make changes unless they know why they should make changes. They still might not make them, so if we don't have the evidence it's hard to influence people."* Middlesbrough, Workshop 5

> *"It's really hard to ban something on legislation, and with UPFs, you don't know if it's the fat, salt and sugar which is causing the issue at the moment, or if it's the additives and the toxicity are the problems. Without that knowledge, there's no way you can get it through legislation to reduce it."* Liverpool, Workshop 5

Some of these participants spoke about wanting government to work on policy responses alongside research on UPFs being carried out. This is so that government can respond quickly if new evidence suggested that this was necessary.

> *"But also in the background, if it is proven to have a link [between UPFs and harms to health], [the government has] got the framework in place to literally just crack on with it, rather than taking another ten years for it to actually be put into force."* Liverpool, Workshop 5

Some also made the point that scientific research is an always ongoing process, so that more research can always be done.

> *"I suppose it's hard to actually know when you've reached that point, you know? That you have all the evidence."* Belfast, Workshop 5

> *"I don't think you ever really will get absolutely all the evidence because [the researchers have] said themselves that science and technology is always moving, so will you ever really have all the evidence?"* Taunton, Workshop 3

Evidence required for certain levels of action

Views about standards of evidence differed to some extent based on the level of intervention that participants assumed would likely be taken by government. For example, participants who felt strongly that there is a greater need for stronger evidence before policy change often made these comments in the context of thinking about a 'ban' on UPFs. Some were happy for less interventionist action to be taken without having all the evidence completely clear, especially providing more information to the public about what UPFs are and their potential harms, including at point-of-sale, or taking precautionary action for products marketed for children's consumption.

> *"I suppose it depends on how much you act. Things like outright banning things, you need a fairly high level of evidence for, but perhaps discouraging or incentivising the opposite, you might [need] less evidence. We don't definitively know that red meat causes cancer, but it's a probable carcinogen, so we recommend people eat less of it."* Taunton, Workshop 5

Taking action to ensure that people have the right information to inform their purchasing and consumption decisions is important to many participants in this context. They believed that this could be done before a complete evidence picture is in place.

> *"I think we could possibly act before we've got all the evidence, which doesn't mean banning anything at all, because I think people should have a choice. It would mean giving people more information. I think I mentioned in the chat just a simple extension of the traffic light system, something like that, to include an extra bit, mentioning ultra-processed food."* Kirkcaldy, workshop 3

> *"Provisional warnings. Even if they can't confirm it, have a provisional warning."* Swansea, Workshop 3

A significant concern for many was the impact of UPFs on infant and children's health. As a result, many felt that enough is known already to start taking action, even if more research is also needed.

> *"I think there's certain things that you can start immediately, and you need to start with things that affect the younger generation. The baby food being ultra-processed is just disgusting. Right from that point, you can affect what goes into children's food. You can also think about educating. Those are things you can do straight away."* Taunton, Workshop 3

8.2 Discussion of harms

When participants were talking about policy action before or after clear evidence on the impacts of UPF, they tended to think about the harms of inaction rather than potential harms arising from taking action before evidence is clear. Participants felt that government not acting soon enough on existing evidence, could lead to:

- Health and environmental problems mounting for future generations;
- Ever increasing impact on NHS services;

- Harms to children manifesting more as they grow up.

Policy making takes time

Some drew attention to the amount of time policy can take to be implemented, even after the evidence has become clear. There were many comparisons to the tobacco industry and harms of inaction around smoking historically, and vaping currently.[46]

> *"History has shown it's not best to wait. It's better to act. Because I think we've probably waited in the past. I'm going back a long time ago now, but stuff like tobacco, they waited a long time on that, and obviously now we all know the bad effects of that. Yes, I would say, we've got enough evidence out there about diabetes, obesity, and mental health."* Liverpool, Workshop 3

> *"So, being with those facts that they have, is this not something that needs to be fast-tracked to have an impact earlier rather than later? Because with all these health conditions that the NHS is struggling with, you know, it's only going to get worse. It's like a ticking time bomb."* Taunton, Workshop 2

> *"If we don't start with this as early as possible, and we wait until the research is finished coming out, you're more or less saying, well, this generation of people, you're screwed because we've got to wait on the research coming out. So we're going to sacrifice your health."* Kirkcaldy, Workshop 5

Participants who felt that government shouldn't act before the evidence is clear, tended not to position their views about this explicitly in terms of 'harms'. Instead, it was about accountability and maintaining personal freedoms. Across the dialogue, participants referred to the place of UPFs in people's lifestyles, and the effects on people should there be any regulatory change that would affect accessibility and affordability of UPFs. Participants highlighted two groups in particular who they felt had the greatest reliance on UPFs: people on low incomes, and those with allergies or other dietary requirements.

> *"I can see here is that a lot of foods are made for people who have dietary requirements, like they may be allergic to something or whatever. A lot of those are, say, dairy replacements. They have a lot of ingredients in there that are very weird. But they do allow people to have the calcium and other sort of benefits that you get from eating products that are derived from milk."* Newham, Workshop 2

> *"One of [specialist presenter's] slides, in her presentation, it had mentioned something about the people in the lowest fifths of deprivation in the world would have to spend 45% of their disposable income on food to be able to eat healthily. I thought that really hit home just how much poverty can be linked with eating these ultra-processed foods."* Belfast, Workshop 1

[46] There was a ban on disposable vapes in the UK which came into force on 1st June 2025 during the dialogue fieldwork period, and was referenced by many groups, especially in locations who met closest in time to the ban (Kirkcaldy, Belfast, Taunton and Swansea).

This point was emphasised by participants reporting back on the conversations they had with friends and family on UPFs, who were equally concerned about the effect of reducing the availability of UPFs for those on lower incomes. They wondered how they would manage if these foods are less available when they value them as a regular part of their diets - because it helps to stretch weekly budgets.

> *"I also spoke to my sister-in-law, who has several kids, she shops to a budget, and her comment was, 'well, I hope this isn't an excuse to make things more expensive,' […] so she was driven by the cost element of having a large family to feed, I suppose."* Belfast, Workshop 2

> *"Then another last group [I spoke to] were kind of practical and balanced in the sense that they took a more pragmatic view. Acknowledging that ultra processed food is bad, it has its downside. But then they were like, 'Well, it's affordable. It's convenient because I'm working. I can't be cooking all the time'."* Kirkcaldy, Workshop 2

A future without UPFs?

It wasn't unusual for participants to express the view that they couldn't see any harms arising from a future world where there were no UPFs at all (and the process to get there). In fact, this scenario made it into some groups' visions for 2030, in an exercise where they explored what research and knowledge was needed to arrive at these visions, across different challenge areas connected to UPF.

> *"I think it wouldn't do us any harm to take as many UPFs out of the food system as possible. We'll still eat and the population will still be here, and it's highly likely to be better for us than worse for us. So I don't think there's any harm in taking as many UPFs out of the food system as possible."* Belfast, workshop 5

In one location (Newham) participants proposed research to understand what the implications would be, in terms of harms and benefits, of completely removing UPFs from the food system. Such research would consider a range of scenarios from complete removal of UPFs and/ or only using ultra-processing for products that don't cause harm (assuming the research has been done to clarify how harmful UPFs are), to reducing UPFs in our food environments and diet. The research would therefore understand the impact of any of these actions on those most vulnerable and disadvantaged in society.

> *"Let's suggest research into the feasibility of getting rid of UPFs altogether. What does that look like, would we still be able to feed the population, who would be at a disadvantage or benefit if this happened? Work through options from a complete ban to reduction of UPFs and see what's feasible."* Newham, Workshop 5

Harms of research

There was limited discussion about the potential harms of research itself. Across the board there was very widespread support for research being done in many forms. Where participants did talk about harms from research, they covered two topics:

- The ethics of experimental trials in which one group might have their diet altered in such a way as to cause harm to their health – and the particular ethical dilemmas of doing research with children
- The potential for underrepresentation of minoritised groups in research, leading to further inequalities in healthcare.

  "I'm pretty sure that we don't have enough research across the board on the causes of ill health in diverse populations. Further research which continues to ignore people like me, could cause more harm than good." Swansea, Workshop 5

9. Power in the system

In this chapter we set out how participants reflected on money and influence as power in the food system, and how they considered power within their research priorities. We end the chapter by discussing the extent to which participants felt research could shift power relationships, and the link between power and responsibility expressed by a few participants in relation to industry-funded research.

Participants first discussed the concept of power in the food system following speaker presentations on food systems in the first online workshop, and on power and food environments in their second online workshop. Participants also explicitly discussed power after they had been on a fieldtrip to review UPFs in-situ in their local high street in the final workshop. During the fieldtrip they looked at how UPFs are displayed, advertised, promoted, sold and priced in supermarkets, convenience shops, food outlets, shop windows and on advertising billboards.

9.1 Power being equated with money

Although power was introduced by speakers in the context of a range of different actors in the food system, participants' subsequent conversations about power tended to be about food companies. For most participants, power is equated with money. Many were concerned about consolidation and concentration of power in the hands of a few companies which made them feel like choice about what they buy and eat is an illusion. There was concern expressed that the size of food companies leads to them having undue influence on government, blocking opportunities for change.

> *"It's how much power those companies must have. Those four big companies who then provide ingredients to […] the 10 companies who dominate the majority of the ultra-processed foods that are produced. My brain's worrying as to how much political power they may have."* Swansea, Workshop 1

> *"Given how much influence a handful of the powerful food corporations have over what ends up on our shelves and in our schools, how do we meaningfully shift that balance of power to ensure ultra-processed foods aren't the default? So especially in communities where you've got the fewest choices?"* Taunton, Workshop 2

As a result of the field trip people made comments about the scale of the problem, and how they felt their decision-making power was diminished by UPFs being "everywhere".

> *"Just how much stuff there is, it's really surprising. Everywhere the shelves are designed to hoard UPFs, you are going to come away from every shop with some type of UPF product."* Middlesbrough, Workshop 4

> *"You can't escape (UPFs). You have to actively look for non-ultra-processed foods. It's very hard to make an active choice away from them in these situations."* Kirkcaldy, Workshop 4

9.2 Framing research recommendations around power

Some participants ended the dialogue with research priorities which explicitly made reference to and explored power relationships in the food system. A quarter of all the table groups across the dialogue framed one of their final priorities around power. These were particularly about the influence and power of advertising on people in society, and the influence of agri-food companies on research.

> *"How to best drive change in industry […] Because money and vested interests are preventing change."* Taunton table group (part of final research priorities)

> *"What influence the big 4 [agri-food companies] have on government policies - how to make them accountable to fund UPF research."* Swansea table group (part of final research priorities)

> *"Impact of packaging and marketing on UPF consumption. Because… [it] targets vulnerable groups with powerful psychology."* Newham table group (part of final research priorities)

9.3 Participants' views on research and power

Participants called for a redistribution of power (from food companies to government and people in society) and felt this could happen in a number of ways. For example, it was felt that, to a certain extent, scientific evidence has an influence over where power lies in relationships in the food system. They held the view that only the most robust scientific evidence carries enough weight to counter powerful industry interests. As a result, they called for more research to examine possible causal relationships between UPF consumption and poor health outcomes (see Chapter 5: for more on this).

> *"If you are battling against hugely powerful companies that produce foods that have a negative impact, the only way that you're going to be able to prevent them from continuing the way that they're going is to have absolute proof that there is a direct correlation, and then there is a causation effect."* Kirkcaldy, Workshop 5

During the dialogue fieldwork period, a story broke in The Guardian[47] about government guidance being changed due to lobbying from industry bodies. Participants who saw this story made reference to it as an example of how they felt food companies had too much power over government action. They saw this a barrier to shifting the balance of promotions towards healthier options such as minimally processed and nutritious food – a shift they wanted to happen.

[47] Gregory, A, UK government dropped health push after lobbying by ultra-processed food firms, The Guardian (May 2025). Available online.

> *"There was some talk of there being an incentive to encourage supermarkets to sell two for one on healthy fruit and veg and things and then lobbying by the big food producers has now meant that that incentive has been dropped. I did read that recently and was just so shocked and horrified by that; that the government would back down on something which is clearly a health benefit, whichever way you look at it, because they were being pressured by money, basically."* Taunton, workshop 5

Participants discussed research funding, where there were two main perspectives on the role of the food industry in research on UPFs. While many participants called for independent research, free from industry influence, as a fundamental principle, there were some who felt that food companies had a responsibility to fund research on UPFs, to repair some of the damage caused by these foods being in our food system. These participants felt that food companies should be obligated to prove that their products do not lead to health issues, before they end up on supermarket shelves. They contrasted this with the onus being on independent research to prove any links with negative health outcomes, after the food was available.

> *"And looking at other countries like in France, they put the policy in and then if food producers say, "Oh no, no, you've banned our food and it's actually good for you," then the weight is then on that food producer to prove that, so it skews the power. It changes the power relationship."* Newham, Workshop 5

10. Conclusion

This report has set out the findings from this foundational public dialogue to understand what participants consider to be important paths for research and what they feel is important in relation to the potential impacts of UPFs on physical and mental health and the environment.

Key messages come from participants deliberations

In trying to make sense of UPFs, given the complexities of the topic and the current lack of clarity on the impacts, participants:

1. Are surprised and shocked at how embedded UPFs are in UK diets, they are clear that people do not know enough about UPFs and believe they should.

2. Call for research to bring certainty where there is currently a lack of clarity and understanding. They want this research to:

- Provide a concrete body of evidence on the impacts of UPFs on physical and mental health and the environment;
- Review how UPFs might impact neonatal, infants' and children's health outcomes;
- Understand whether specific additives or combinations of additives are causing harm;
- Explain what "good" and "bad" UPFs are and whether they should continue to play a part in UK diets;
- Face the issues of the ubiquity of UPFs in the food system including how to create food environments in which healthy foods are the default rather than UPFs;
- Create a body of research on links between UPFs and environmental harm from plastics and packaging to industrial farming.

3. Believe in some cases action should be taken on UPFs now, before a full body of evidence is in place, for example where the potential harms appear most serious and urgent: in relation to child development and increases in non-communicable diseases. There is a fear that government inaction on UPFs is laying the conditions for harm to future generations that could be addressed now.

4. Express very strong concern that the food system has been set up to create an illusion of choice, that society has left decisions on food availability, affordability and accessibility to the market. They are highly sceptical of industry-led messaging on UPFs, particularly on their benefits.

5. Place most trust in publicly funded researchers, scientists and specialists to provide credible and transparent information on UPFs which brings public benefit.

6. Call for a redistribution of power (from food companies to government and people in society) and felt this could be informed by scientific evidence which should have influence over where power lies in relationships in the food system.

This is the first public dialogue on UPFs. It has engaged people across the UK in serious, informed deliberation on research on UPFs. It has highlighted both the complexity and the contentious nature of the topic – and also its importance. Participants are ambitious in their calls for research. They are concerned that continued lack of evidence and clarity will cause significant harms to health and the environment if their this call for research isn't answered.

Participants want greater awareness of UPFs across society and were surprised about the journey they went through in the dialogue. They feel others should be involved in further discussions on the impacts of UPFs to build momentum to address the issues raised.

This dialogue and report are a springboard for further public dialogue or other forms of deliberation to gain a deeper understanding of the effects of UPFs on people across society. In making sense of UPFs participants have seen this is a vast topic on which much more work is needed in research, public understanding, policy and action.

Image: Postcode Films, Participants reviewing stimulus, Workshop 5, Liverpool

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Making sense of UPFs: a public dialogue

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