Guiding Principles for translating evidence on diet shift for people in the real world

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Awduron: Dr. Kelly Parsons, Rachel Headings, Professor Bob Doherty, Professor David Barling, and Professor Tony Heron.
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List of figures

List of tables

List of boxes and practical examples

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Executive Summary

There is an increasing amount of evidence generated in the area of healthy sustainable diets, including many academic studies on the problems caused by current diets and on interventions which could provide solutions. Yet a significant proportion of this evidence is not reflected in policy or practice. This report presents a set of guiding principles for researchers and research commissioners - or ‘evidence generators’ - on how to generate (create) and translate (communicate and disseminate) evidence effectively. The Guiding Principles have been developed to encourage and support evidence ‘users’ – for example, policymakers and practitioners in the public sector, food industry and third sector - to adopt and translate evidence on healthy sustainable diets, by helping evidence ‘generators’ to get the right evidence to the right

users, in the most effective way possible. A unique dimension of this study is the focus on food practitioners at the local level.
These Guiding Principles were developed through a combination of research methods, including scoping and rapid evidence literature reviews, interviews, co-creative workshops, follow-up interviews and co-creative feedback sessions. The participants included 30 individuals who work as either food policymakers in national or local government, health practitioners, or decision-making practitioners in food retail, trade associations representing food manufacturers, small and medium enterprises (SME) and third sector or nongovernmental (NGO) organisations.

From the data, we have produced a toolkit of Guiding Principles to promote healthy and sustainable diets. Our eight Guiding Principles for evidence generators to consider when producing evidence for food policymakers and practitioners are:

1. Take a joined-up approach to evidence in the food system
2. Involve evidence users and citizens in the generation
3. Identify who needs to see your evidence and understand their needs
4. Familiarise yourself with different types of evidence sources, where users find evidence and the role of evidence brokers
5. Be clear, concise, and direct
6. Think about how you want to frame your evidence
7. Be visual and explore multiple formats
8. Get your timing right

These Guiding Principles aim to improve how evidence is generated and translated, so that evidence on what works to shift consumers towards healthy sustainable diets is more effectively translated to and adopted by policymakers and practitioners.

Shifting toward healthy and sustainable diets: how to optimise evidence use for policy and practice technical report

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About the guiding principles

This document presents a set of guiding principles for researchers and research commissioners - or ‘evidence generators’ - on how to generate (create) and translate (communicate and disseminate) evidence effectively. They have been designed to be most relevant to those working in the field of healthy sustainable diet shift, but are also relevant to those working in food systems more broadly.

The Guiding Principles have been developed to encourage and support evidence users - policymakers and practitioners in public sector and industry - to adopt and implement evidence on healthy sustainable diets by helping evidence generators to get the right evidence to the right users, in the most effective way possible. More specifically, this document aims to support evidence generators to:

- understand the evidence needs and preferences of users, including food policymakers and practitioners
- create evidence and communicate it effectively to food policymakers and practitioners

- bridge the gap between evidence generation and evidence use in policy and practice for healthy sustainable diets

These Guiding Principles were developed for the Food Standards Agency's Optimising Evidence-Use for Diet Shift Project. The project scope and methods are detailed in Appendix A.

The objective of the project was to understand how evidence on what works to shift people towards healthy sustainable diets can be better translated for, and adopted by, the wide range of food policymakers and on-the-ground practitioners who have a role in influencing diets.

Practitioners include a diverse network of on-the-ground actors, such as food businesses, from large retailers and manufacturers to small cafes; professional practitioners, such as health practitioners like dieticians and nutritionists to caterers and public sector provisioners; and third sector practitioners, such as charities and other community groups. Table 4, in the Appendix, provides some further detail on the range of actors with a role in influencing diet shift, and who can adopt or implement evidence to support healthy sustainable diets.

The Guiding Principles are broadly organised according to three different stages of the evidence-use process:

- generation: the creation of evidence (which might be primary research studies or secondary generation through review and synthesis)
- translation: the interpretation, communication and dissemination of evidence to evidence users
- adoption and implementation: the integration of evidence into policy or practice, and its conversion into deliverable actions.

Evidence generators are able to directly influence the first and second stages of the evidence use process. They can decide on the content, methods and types of evidence they create. Effective evidence generation involves providing the evidence which users actually need, by understanding gaps, bridging evidence silos and including the information which users require to take action. Including users at an early stage when creating evidence can ensure it meets their needs.

Generators can also directly influence how their evidence is communicated and disseminated. Good translation involves making sure evidence gets to the users that can actually take action on it, which might be directly or indirectly via a 'broker'. A knowledge/evidence broker is an intermediary between generators and users, and may perform this role explicitly or implicitly. Effective translation also involves communicating evidence well, by understanding the role of trust and credibility in how evidence is perceived by users. It involves communicating the evidence clearly and at the right time. It involves ensuring different evidence user needs are catered for. Most evidence generators can influence the adoption and implementation of evidence only indirectly, because there are many other influences on adoption and implementation into policy and practice than simply the provision of evidence. An explanation of the evidence-use process - and roles within it - can be found in Appendix B.

Linking research, policy and practice; a range of terms

Many different terms are used to describe the relationship between scientists, policymakers and practitioners and the efforts to strengthen that relationship. They include:

- Bridging research and policy/practice
- Engagement
- Knowledge exchange
- Knowledge transfer
- Use of research evidence

- The science-policy interface
- Translational science
- Research impact
- Research-practice partnerships
- Professional partnerships

These different activities may differ in focus but all, in essence, are about aligning evidence to the needs of, and challenges faced by, evidence users.

The Guiding Principles for more effective evidence use

This handbook sets out eight Guiding Principles for evidence generators to consider when producing evidence for food policymakers and practitioners. For each Guiding Principle, where possible, an example of good practice is provided, along with a list of key questions to consider. Each Guiding Principle also features quotes from the evidence users who participated in the primary research.

The Guiding Principles: Summary

The following summary of the Guiding Principles offers a concise version of the findings. More detail on each Principle is included in the remainder of the document.

Generation

Take a joined-up approach to evidence

- identify which evidence gaps need addressing
- recognise when sufficient evidence on a problem or solution has been established
- position your evidence within the broader context
- demonstrate how your evidence aligns with evidence on other parts of the broader picture
- link to other complementary evidence sources
- provide rigorous, unbiased synthesis of evidence
- focus on the how and by whom
- look holistically at issues
- address both health and sustainability in your evidence
- include economic implications of your evidence where possible, but don’t assume economic impacts
- include estimated costs in evidence on policy initiatives and other interventions
- consider the financial impacts for businesses of acting on evidence
- be aware of funding constraints on third sector practitioners
- consider the behaviour change aspects of recommended actions
- provide horizon scanning support to policymakers and practitioners

Involve evidence users and citizens in generation

- utilise different mechanisms to engage with evidence users (such as deliberation platforms, professional partnerships and fellowships)
- involve policymakers early to make your evidence as useful as possible to them
- include commercial practitioners in evidence generation so your evidence takes account of their pressures and incentives and is practically implementable
- consider different methods for citizen involvement, including living labs, or conducting lived experience research

Identify who needs to see your evidence and understand their needs
Identify:

- which diet-shift actors your evidence relates to
- who in an organisation your evidence is relevant for (and don't assume they will share evidence internally)
- which levels of government, and government departments hold the levers to take action on the issue your evidence is addressing

Decide which 'policymakers' you are looking to target:

- elected officials like members of parliament or civil servants (who might be analysts, for example, economists, statisticians, and social and operational researchers who develop the evidence base for policy, or policy officials) or
- corporate policymaking groups and industry sector key opinion formers

Understand users, to:

- demonstrate why different actors should care about your evidence and what actions they might be able to take on it
- create evidence which is food system specific, and sector specific - tailored to particular food system actors and accounting for their different priorities and needs
- consider multiple actor needs simultaneously, for example public acceptability and business implications of a policy intervention

Understand policymaking and the role of politics, to understand what actions policymakers themselves can take

Recognise that:

- policymakers do not hold all of the levers for change, and rely on on-the-ground actors to implement actions
- policymaking is messy, complicated and non-linear
- factors other than evidence provision influence policy, including experience, values and ideologies of policy officials, resources, habits and tradition, and lobbyists, pressure groups and the media

Be explicit about the policy problem you are addressing (which is not the same as a scientific problem)

Translation

Familiarise yourself with different types of evidence, sources where users find evidence and the role of evidence brokers

Recognise that policymakers:

- draw on many sources, including their own experience, information - ranging from peer reviewed scientific evidence and the 'grey' literature - public opinion and feedback from consultation
- often rely on academic research much less frequently than evidence from government, private sector and not-for-profit organisations
- are rarely experts in the field for which they are making policy and rely on evidence synthesis and peer-review for steer

Recognise that commercial practitioners:

- use peers, networks and their suppliers as important evidence sources
- find evidence synthesis reports and webinars useful
- often do not have systems in place around evidence-use
- vary significantly in technical expertise / resources available to them

Recognise that third sector practitioners:

- get evidence from academia, other NGOs, and international sources
- often don't have systems in place around evidence-use
- can be constrained by funding requirements including reporting, which shape the types of evidence or evaluation employed

Use population-level data such as on demographics and income to justify the need for a specific programme or practice

Understand that credibility can means different things to different users (for example scientific credibility vs real-world credibility)

Undertake and utilise systematic evidence reviews where available

Improve the credibility of your evidence by ensuring methods used to produce it are robust and clearly explained

Build relationships with evidence users to enable trust, but recognise that relationship-building involves investment of resources

Be aware that brokers are used by all different user groups, who have their own particular types and favoured organisations

Understand that for practitioners, whether they be professional or commercial, their relevant professional body is an important source of evidence

Be clear, concise and direct

- communicate evidence clearly and concisely
- match language used to the knowledge base of the audience
- aim for the 'general but not ignorant reader'
- provide quick summaries and take-aways to aid comprehension
- consider employing the services of a professional editor or professional design services (and costing these into research project budgets)
- be as direct about findings and recommendations as possible (while acknowledging complexity or uncertainty where it exists)
- offer clear definitions, including on 'what is a sustainable diet?'
- be explicit about what practical action needs to be taken on your evidence
- clearly explain the 'status' of the evidence – how robust it is (indicative, proof of principle, validatory, etc).
- avoid uninformed or naive policy recommendations
- reflect on, and address, how your evidence can be translated by users to their specific food system activities and to citizens on the ground

Think about how you want to 'frame' your evidence

- consider framing your evidence around the 'why', for example, 'why is this evidence relevant' to a particular user?
- decide whether to position yourself an 'issue advocate' (for example, framing the evidence in a persuasive style) or an 'honest broker' (framing it as neutrally as possible)

- recognise that if your evidence challenges an existing paradigm, you may need a persuasion strategy, but understand that framing evidence in a persuasive manner comes with risks (because evidence generators who become evangelical may be considered to be too much like a political actor and lose credibility). Be explicit about what is evidence and what is interpretation within a message
- consider communicating evidence in the form of a story to aid connection and motivate action

Adoption/Implementation

Be visual and explore multiple formats

- use aesthetically pleasing and easy-to-understand visuals to help users process information quickly and easily
- consider how headings, graphs, tables, icons and infographics can help convey complex information quickly and save space
- be aware that including diagrams / figures in your outputs may increase their likelihood of citation
- understand how presenting evidence in an exciting way (such as through video, social media, a personal experience, etc.) is more likely to engage and connect with audiences
- use multiple mechanisms - and balance auditory and visual presentations - to ensure evidence caters to different user preferences and learning styles
- consider digital inequality, particularly when end-users are individual citizens
- consider educational inequality and cultural differences between end-users, especially when they are individual citizens
- look at the evidence of effectiveness of different formats for different audiences

Get your timing right

- time delivery of your evidence to align with the needs of users
- recognise that making papers timely can involve compromises on developing the ‘perfect’ piece of evidence
- make your evidence as convenient and accessible as possible
- consider frequent and ongoing communication throughout a project, which may be more useful than complete evidence at the end

Figure 1: The guiding principles at a glance

Source: Authors

Figure 1: The guiding principles at a glance (accessible version)

Generate

- take a joined up approach to evidence
- involve evidence users and citizens in generation
- identify who needs to see your evidence and understand their needs

Translate

- familiarise yourself with the different types of evidence, sources where users find evidence and the role of evidence brokers
- be clear, concise and direct
- think about how you want to 'frame' your evidence

Disseminate

- be visual and explore multiple formats
- get your timing right

Adoption and implementation

Remember this is not a linear process and you may need to revisit some steps.

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Take a joined up approach to evidence

Good policy and practice should always be based on the whole sweep of current scientific knowledge, usually from multiple disciplines. Diet shift is a particularly multifaceted issue, involving many different food system activities, outcomes and requiring insights from a range of disciplines: a single piece of evidence is highly unlikely to address all of the relevant considerations for users. For example, for policymaker evidence users, 'it is rare that all the evidence needed for a moderately complex policy problem comes from a single discipline, and rarer still that it comes from a single study' (footnote 1). This observation aligns with the common recommendation (in policy documents, academic journals, international reports and government agendas) to address food challenges using a 'systems' approach, looking holistically at an issue within the context of the broader system of activities and outcomes (footnote 2). However, this can pose a challenge for diet shift evidence, as healthy sustainable diets evidence is fragmented in a variety of ways. Ensuring you provide your evidence in a joined up way will increase the likelihood it is adopted by users.

Joining up across organisations

One of the barriers to evidence adoption is that the existing evidence on diet-shift is fragmented and dispersed across different organisations, making it difficult to find for evidence users. The existence of multiple fragmented sources also makes it more difficult for users to know which evidence to trust. For this reason, evidence users would like access to an independent body to 'signpost and curate the evidence' for them (footnote 3). Fragmented food systems data is a particular barrier; the absence of systemic monitoring has been identified as inhibiting the connection of food systems knowledge with action (footnote 4). Policymakers have pointed to the urgent need for a food system digital resource dashboard that collates evidence on UK food system drivers, activities and outcomes. This has not been created for the UK specifically, although it was a recommendation of the National Food Strategy and the global Food Systems Dashboard (footnote 5) project, which combines data from multiple sources to give users a complete view of food systems, includes the UK.

"We need an independent body to signpost and curate the evidence on this for others, such as an advisory council of some kind. Information needs to be food system specific and relevant to the different groups [along the food chain]; and the body should be neutral and trusted." - Food Retailer

In the absence of any dedicated supportive structures to bring evidence together, generators can still support users to overcome fragmentation; being aware of what evidence already exists means your evidence can be presented within its broader context and you can signpost to other complementary evidence sources which users may need in order to understand the issue your evidence is addressing. Reviews such as the National Food Strategy, and its accompanying list of evidence sources, may be helpful in getting an overview of what else is out there (footnote 6). Knowing where evidence generation is taking place, and what the focus of these different institutions is, may also help you to keep abreast of the evidence base. The Food Research Collaboration has recently produced a database of food research institutes in the UK (footnote 7).

Gaps in the diet-shift evidence base

The body of evidence on healthy sustainable diets is advancing, but specific gaps remain. A mapping exercise of the UK food system identified several challenges around evidence availability on the activities and outcomes of the system. A recent review of evidence in food systems (footnote 8) more broadly, by the OECD, identified significant gaps (footnote 9) and noted that:

- gaps may be especially pronounced in this field because food systems are broad, encompassing food security, nutrition, environmental effects and livelihoods, among others;

- the sheer diversity of evidence makes it difficult to extrapolate findings from one context to another (footnote 10).

- in understanding different types of evidence gaps, it may be helpful to consider how they can exist on:

- problems: What is the problem, including how significant it is, who is impacted by it (for example, what is a healthy sustainable diet, what metrics is this measured by, who eats what, implications of changing diets for producers and consumers), trade-offs and unintended consequences.

- solutions: What to do, including which actions/interventions (policy and practice) can be taken in response to the problems and what evidence there is for their effectiveness in addressing problems.

- solution Design and Implementation: How to do it, including how to design and ensure effective implementation of interventions, evaluation of the process, not only the outcome (footnote 11).

Another barrier is that the kind of evidence users want is not currently available to them, either because it does not exist in the first place, or because it is not being provided in a way which supports them to take a more holistic, systems approach to transforming food systems. To do so requires evidence which is: multi-outcome; focused on the how; from multiple disciplines; and aligned to pressing current developments.

Joining up evidence across outcomes

Users want evidence to address the range of outcomes associated with food systems, including health, environmental and social. One challenge in relation to diet shift evidence, is that health and environmental outcomes tend to be addressed separately. Where possible, addressing both health and sustainability in your evidence (along with its economic considerations, as discussed below) will help users to navigate these silos. This requires being explicit about whether your evidence addresses different outcomes (for example health and sustainability), or what is known about whether a particular action will improve different outcomes (for example specifying that an action is likely to improve health, but evidence is unclear on sustainability, and why there is a lack of clarity – for example, the metrics are less developed). Demonstrating an awareness of how your evidence aligns with evidence aimed at other aspects of the food system can also be helpful. There is also a need to bridge organisational silos which fragment evidence users when disseminating your evidence.

“We do need more systems work on the implications of moving to a more healthy sustainable diet, on production implications for the UK as well as processing and manufacturing and production.” – Third Sector Organisation

“From the public health perspective, generally speaking, food is approached and the evidence that's collected and considered valid, is largely around nutrition evidence…diet shift wider evidence around sustainability, around environmental impacts, those really have had no play, no attention or focus within the public health world.” – Regional Public Health Network

Including an economic dimension to your evidence

Health and sustainability are often the primary focus, but evidence users also want to know about the economic implications of a particular piece of evidence, or associated action. Cost implications will differ across different actors and may be direct or indirect. The cost implications may also be different at different scales. There may be economic benefits to acting on a piece of evidence to society as a whole; for example, actions which improve diets and reduce healthcare costs as a result. However, the action may create economic costs for businesses (although these should not be assumed, as discussed below). In terms of different scales, evidence may demonstrate the economic benefits of dietary shifts - price premiums, more stable and equitable relationships - whereas on-the-ground business may just see increased costs, at least in the short term.

However, economic impacts should be considered, not assumed. A number of research papers have challenged the received wisdom that intervening in the food system to achieve health or sustainability objectives will necessarily have a negative impact on costs for users. For example, evidence has demonstrated how policy interventions, such as sugary drinks levies, advertising restrictions and front-of-pack labelling, did not have the purported (primarily by the food industry) negative effects on jobs or revenues (footnote 12). It may be unrealistic to support your evidence with a full cost analysis, but it is still possible to reflect on and, where possible, include an economic dimension to your evidence. Think about associated costs and savings, who is potentially impacted and how. Cost savings to the health system are becoming a popular metric, as used in the National Food Strategy review, published in 2021. The following considerations should be borne in mind in terms of the economic interests of different types of evidence user.

Policymakers

For policymakers the costs of an initiative will be front of mind (footnote 13). As a general rule, policymakers are also more numerate than scientists give them credit for, and have access to well-trained statisticians (footnote 14). Often policymakers have to develop proposals for the annual comprehensive spending review (CSR), which has a cost/benefit analysis attached. Policymakers need to be able to make the full case to the Treasury, in the 'Green Book Business Case process' (footnote 15) for a particular action. To do so they need to understand if it works, how much difference it makes, how much it costs and what will the government need to stop doing to do that instead (footnote 16).

One of the principles of the What Works Network has been to ensure evidence users are presented with evidence on possible actions, accompanied by evidence on the potential costs (see Practical Examples: Taking a joined up approach to evidence).

Commercial Practitioners

For commercial practitioners, the economic aspects of a piece of evidence are clearly important because taking action has implications for the financial performance of their business. Commercial practitioners, particularly small and medium sized enterprises (SMEs), report that taking action on diet shift often means absorbing an increase in costs. Economic impacts are particularly relevant for SMEs taking action to provide more healthy and sustainable products; they might aim to source from local suppliers for sustainability reasons, but need to balance those aims with cost considerations. When evidence on economics is missing, it can act as a barrier to action. An example is the development of a Net-Zero Handbook produced by the Food & Drink Federation and WRAP, to help manufacturing businesses take action to support climate objectives. The handbook includes guidance for business but is short on economic arguments, because the evidence on economic benefits for food businesses taking action on net zero is currently limited.

Third Sector Practitioners

For third sector practitioners, the financial impacts on the communities they work with are paramount. When working with disadvantaged communities, in particular, any evidence or action that increases the costs of food will make acting on it a challenge. For example, it may be unrealistic to expect a food bank manager to improve the sustainability of particular foods given the organisation's means, and those of its customers. Another way third sector evidence use is impacted by economics is that third sector practitioners often make decisions about which evidence to act on based on available funding streams, such as grant money, start-up funds, or popular interest (which may mean enhancing their ability to generate revenue from the public via models like kick-starter campaigns). This may leave them in the difficult position of choosing to do something that has general approval (from the government and public) such as increasing vegetable consumption, over pursuing an action that may have longer-term impact but is more expensive and less popular, such as reducing meat consumption. Funders also often prefer more visible consumer information campaigning, which requires less resources or is deemed more appropriate (footnote 17). Evidence users describe going with the lower-cost option, despite evidence of its limited impact, as it is 'better to do something than nothing'. For third sector participants, it may be particularly helpful to signpost potential sources of funding to reduce any additional costs associated with your evidence.

"I'm actually on the board – now there are four directors; I'm one of them – and we make decisions based on what our resources are and what we see as impactful in the community." – Local Food Partnership

Joining up evidence to current priorities

A further challenge is that evidence can lag behind diet shift developments or political priorities, so it's important to ensure your evidence aligns as closely as possible to current priorities and plugs any evidence gaps. Examples of gaps on diet shift identified by evidence users in the UK include the economic aspects of moving toward net zero diets and the nutritional quality of processed vegan diets (footnote 18). A good place to start is UK Government departmental Areas of Research Interest (footnote 19), which they publish to signpost evidence generators to gaps in the evidence base they are particularly interested in filling.

Joining up evidence across disciplines

Joining up evidence in the ways described above will require multiple disciplines working together. One particular identified gap in the types of disciplinary evidence available to policymakers is on the behaviour change aspects of implementing interventions. In part this is due to a wider Government trend for drawing on some academic disciplines - natural sciences and economics - more than others, such as history and other social sciences, arts and humanities (footnote 20). For this reason, the UK's Chief Medical Officer (and former departmental chief scientific advisor) has described 'a wide open goal for timely, relevant, rigorous and readable qualitative and quantitative social science addressing practical questions in policymaking', especially on the behaviour change aspects of policy initiatives, where the supply of research is limited compared to the demand (footnote 21). Users also want evidence which is informed by system stakeholders, including policymakers and practitioners, and also citizens, as outlined in Principle 2.

"There is a limited amount of research on consumer behaviour related to when you bring both aspects of human and planetary health together. To date most work has been done on either healthy diets or environmental aspects and not in combination." – Policymaker

Joining up the why with the how

Along with more joined-up evidence, users want evidence to focus more on the how of healthy sustainable diet shift. Evidence users agree that 'describing the problem that needs resolving is only useful until the description is clear' and they want to see more evidence on what to do to tackle the problems, including the most effective actions they can take. It is important that evidence generators recognise when sufficient evidence on a particular problem, and the need for action, has been established, and not to continue to 'describe a problem in greater and greater detail for years' after evidence users have accepted it without moving to the next stage of looking at the solutions (footnote 22).

However, focusing on the how is challenging because of evidence gaps on the effectiveness of solutions (footnote 23). One systematic review on policy interventions for sustainable diets identified a big gap in knowledge regarding effectiveness, because a rich body of systematic evaluations of proposed interventions is not available in sufficient numbers (footnote 24). The producers of an 'evidence gap map' on food systems and nutrition measures also found that widely implemented interventions are not well researched, which risks negative consequences and the inefficient use of funds (footnote 25). A review of food systems policy levers found that evidence on policy levers is fragmented and rarely includes information about evaluations or effectiveness, or details on the process of policymaking used to develop or implement the policy, making interventions harder to replicate (footnote 26). This situation echoes the evidence base beyond food; it is common for activities to be used in policy and/or practice which are not evaluated.

Generators can help enable evidence users by addressing the existing gaps through generating new evidence, and also including - where possible - considerations of the how of healthy sustainable diets, when presenting existing evidence; including information on what the evidence is for the effectiveness of a particular intervention, how robust the evidence is, and how the intervention was developed and implemented, or could be.

"There is a growing amount of evidence on the need to tackle net zero. However there is less evidence on the how which is what we need as a retailer. We know we need to reduce the amount of meat in our stores but how do we do that and take the consumer with us on that journey?" – Food Retailer

Many evidence users also recognise that for diet shift to occur, multiple interventions will be needed across multiple scales, rather than a single 'silver bullet' and want this to be reflected in the evidence they are given. For example, some are interested in evidence that integrates 'non-linear' models that account for complexity and interactions across, between and along the food chain. Recent work on making better policies for food systems by the OECD supports this, calling for coherent multi-pronged policy frameworks in the food system (footnote 27). This will require more systemic evidence, which makes links between individual interventions, to support it.

The importance of evidence synthesis

It is clear from the barriers identified above, that one of the most important contributions that academics can make to policymaking is rigorous, unbiased synthesis of evidence (footnote 28). However, evidence synthesis may be deemed as low prestige by some parts of the academic community - including those working on food - and many evidence generators overlook its importance (footnote 29). Many assume a two-stage process; first individual research is conducted and then secondly, policies adopted as a result. This perception may be exacerbated by pressure on academics to demonstrate impact on their own particular piece of research. In reality - as the UK Chief Medical Officer explains - this should be a three-stage process; with an extra stage being synthesis of research from multiple evidence generators, across disciplines, and policies then adopted based on that synthesised evidence. The need for synthesis also applies to practitioners. For example, commercial practitioners find organisations such as the Scientific Advisory Committee on Nutrition, (Food Standards Agency) Expert Scientific Advisory

Committees, European Food Safety Agency, BRI and Leatherhead as useful sources of synthesised evidence (footnote 30).

“We have found really useful where researchers have synthesised evidence across multiple disciplines. A great recent example is the Global Food Security programme resilience report which synthesised findings across 14 multi-disciplinary projects. We need more of this type of evidence.” – Policymaker

Practical examples: Taking a joined up approach to evidence

The following examples of good practice when it comes to taking a joined up approach to evidence may provide inspiration on how you can both identify existing research, and tailor your own research:

- What Works Centres are specialist evidence brokers, which specialise in understanding, collating, synthesising and sharing evidence more effectively so it gets adopted. For example, What Works Wellbeing produces briefings, based on systematic evidence reviews, which specify how strong the evidence is for different dimensions of wellbeing. The National Food Strategy Independent Review proposed two ‘What Works Centres’, one on farming and one on diet shift, to address this barrier, noting that the evidence currently available is fragmented, incoherent and confusing. The idea is to improve generation, translation and adoption of actions to shift food systems, based on the What Works model ‘which has been tried and tested across a range of complex areas of policy and public services’ (footnote 31)
- several What Works Centres produce at-a-glance toolkits, outlining possible actions, along with information on how robust the evidence is, their effectiveness, and costs. An example is the Education Endowment Foundation’s Teaching and Learning Toolkit
- the National Food Strategy Independent Review included estimated costs for recommended actions, along with suggestions on where funding could be sought from
- the World Health Organisation’s NCDs ‘Best Buys’ and the ‘42 Policies’ project (linked to the Food Systems Dashboard), are helpful existing evidence sources on the effectiveness of health interventions (footnote 32).

Checklist

- have you familiarised yourself with the existing evidence base?
- is your evidence positioned within the wider context?
- are you clear which evidence gap you are filling, and have you explained how it fills that gap (for example, is it filling an evidence gap on the problems, or the solutions and how to implement them)?
- have you demonstrated an awareness of how your evidence aligns with evidence aimed at other aspects of the food system?
- are you able to link to any complementary evidence sources?
- is it clear which outcomes - health, sustainability - your evidence is relevant to?
- have you considered the economic implications of your evidence?
- can you say anything specific about potential costs or savings?
- have you considered the economic pressures on different evidence user groups?
- are you familiar with the range of objectives or trade-offs the relevant users face when deciding whether to take action?
- how you included how considerations in your evidence?
- have you considered the behaviour change aspects of your evidence?
- have you considered undertaking evidence synthesis on a particular issue?

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Involve evidence users and citizens in generation

Evidence users are keen to be involved in evidence production so the outputs are aligned to their needs. There are several ways that evidence is generated. The first is when generators create evidence they consider to be relevant and then 'push' it out to users (whether they want it or not, meaning it may not be aligned with user needs). Evidence is also generated is when users 'pull' in evidence from generators (for example when a government department commissions research to address a particular policymaking need). Co-creative approaches involve generators and users working together to decide what evidence to create and how (footnote 1). Co-creative approaches are being actively encouraged in both academic and policy/practitioner circles (footnote 2). The perceived benefits are that it leads to better, more implementable solutions, and increases ownership in those who will need to take action to implement actions. At the same time, some experts are sceptical about the use of co-creative approaches, arguing they are not a panacea, that the reality may not live up to the ideal, and that there can be tensions with the messy world of policymaking, and the objectives and incentives for researchers (footnote 3). There are also are important considerations about the associated costs and skills required to do co-creation well, and a risk of negative impacts on those participating (footnote 4).

Co production, design, creation

These terms - and others, such as 'engagement' - are used in varying ways to describe the involvement of evidence users (which may be in research or in policy or practice development, or both). Definitions may distinguish the terms by the stage at which users are included (for example, defining the problem and solutions as 'co-design', involvement with implementation as co-production'),(footnote) but the terms are often used interchangeably and without any agreed methodology(footnote). The involvement of users in developing policy or practice may also be labelled as collaborative governance, community involvement, participation and civic engagement(footnote). Though a distinction can be made between participation - being consulted - and co-creation, meaning active involvement. This Guiding Principles document uses the umbrella term co-creation, as it is favoured in the research evidence-use literature - for example to differentiate between push, pull and co-creative approaches to generation.

There are many different ways that evidence generators can work more closely with users, including:

- calls for Evidence, often issued by a government entity on a particular issue;
- directly Commissioned Research by government bodies or other funders, focused on a specific topic or need;

- co-Creation Activities, such as workshops, where stakeholders discuss problems and potential solutions on a political issue;
- professional Partnerships between policy/practice and research, usually with a limited lifespan, such as expert elicitation, committees, networks; and
- training and Fellowships: formal skills development schemes, often funded (for example, skills training for researchers and practitioners), secondments, internships, fellowships (footnote 5).

These mechanisms have varying levels of effectiveness. For example, calls for evidence are considered to be 'moderately effective', though they may require strategic planning of purposes and goals, and good networks and relationships to work well. Directly commissioned evidence is considered effective for both short and long term policy decisions. Professional partnerships can be highly effective if they are: a) funded; b) take a long-term perspective; and 3) collaborative in nature. There is mixed evidence of effectiveness on training and fellowships (footnote 6). Further details on the effectiveness of different mechanisms can be found in the Technical Report.

Involving policymakers in generation

Co-creation of evidence is regularly hailed as the most useful way to promote evidence into policy (footnote 7). Early involvement, or even participation at later stages, can make evidence substantially more useful to policy. Ideally policymakers should be involved throughout, from designing the question to governing the process and interpreting the findings (footnote 8). One example suggested by evidence users is that evidence generators working on modelling should provide an interactive interface, where if the policymaker does not agree with the starting assumptions of the model, they can change them (footnote 9). Policymakers also involve users in multiple ways, from more traditional participation through formal consultation, to more recent approaches such as public dialogues and citizens assemblies (footnote 10).

"There needs to be much more joint working between academics and policymakers. We need more people working across this boundary both ways via secondments and other mechanisms." – Former government civil servant

Involving practitioners in generation

Commercial evidence users point to the problem of evidence-generators failing to understand commercial realities - be they for a large international food retailer, or a sole enterprise street food stall owner. This can mean that evidence fails to be actioned, because how it will be implemented practically has not been considered. Involving users early in the research process can ensure the evidence is useful and actionable. Businesses also have a long history of involving customers in their own evidence generation, in the form of both traditional market research, but also increasingly through more co-creative methods (footnote 11).

"We have been working with a range of supermarket retailers in ongoing co-creation of evidence for our metrics for our initiative on halving the environmental impact of a shopping basket. The accuracy of our evidence is down to the sharing of data and information." – Third Sector Practitioner

Involving citizens in evidence generation

There is a growing focus on citizen engagement in research, due to perceived benefits which include: improving relevance and uptake of evidence; representation of diverse (and unequal) groups; dissemination of findings beyond traditional academic audiences; and building public trust in science and research (footnote 12). There are a variety of different ways that citizens can be involved in evidence-generation, ranging from more traditional research methods, such as focus

groups where researchers aim to understand the perspectives of citizens on a particular issue or activity, to tools like 'living labs', where citizens are involved in developing solutions for challenges (footnote 13), and citizen science methods (footnote 14). An example in the field of diet shift evidence is a lab involving a university caterer, students, and additional stakeholders, to develop a weekly farm-to-table cafeteria menu (footnote 15). Experiential knowledge on the 'lived experiences' of communities and individuals is also increasingly considered a valuable type of evidence when tackling diet shift. As with commercial practitioners, it can help ensure implementation of a piece of evidence is not hindered because of a lack of understanding of those directly affected. It can be used to shed new light on how citizens experience their food environments, and what influences their diets (footnote 16). However, such evidence can be time consuming to collect, as it relies on trusted relationships, and there are a range of considerations around involving particularly disadvantaged groups in evidence-generation, including paying them for their contribution and designing the process to make it convenient and accessible to different needs.

"What resonates most for me is the voices of lived experience…this is now becoming increasingly called for. RCTS [randomised control trials] don't work when people have complex lives." – Academic

Practical examples: involving users and citizens

There are various guides available to help navigate the process of involving citizens and users in your research:

- the Centre for Food Policy has developed a guide on research methods which can be used to understand lived experience of food environments to inform policy. It notes that evidence on lived experiences of food environments is rarely focused on informing policy, which represents a missed opportunity to inform effective and equitable public policy to address all forms of malnutrition and diet-related ill-health. It has also created a community of practice, to support collaboration and engagement between researchers, and catalyse more and better research on the lived experience of food environments and to enhance the policy impact of research through exploring ways to translate and communicate findings effectively.
- the National Institute for Health Research-funded Applied Research Collaboration East of England, has produced a set of 'Top Tips for Public Engagement', many of which are also relevant to engaging with other types of stakeholders you may want to include in evidence generation.

Checklist

- could you involve evidence users in your generation and which users would be most relevant?
- do you understand the associated costs and skills required to engage users and the possible negative impacts on those participating?
- have you looked into the effectiveness of different methods for engaging users?

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Identify who needs to see your evidence and understand their needs

A first step is to understand which actors have a role in influencing diet shift, and which ones your evidence relates to, including establishing who is responsible for what. The second step is to understand their needs, and what might influence whether they adopt your evidence.

Identifying relevant evidence users

The food system is a complex system of activities involving many different actors whose activities can have an influence on diets (footnote 1). Actors across the public sector (government and professional practitioners), private sector (commercial food businesses) and third sector (NGOs and community groups) all play a role in creating and delivering policy and practice that influences diet. Healthy sustainable diet shift also involves multiple food system outcomes, including both human health and planetary health. Health and sustainability issues may be dealt with by different departments or organisations, or different individuals or groups within departments or organisations (footnote 2). Within an organisation, there may be a dedicated individual or department or a number of different individuals or departments, responsible for evidence gathering. Crucially, these individuals or departments may not necessarily share evidence with one another.

Identifying policy evidence users

Food policy is made by multiple government departments and agencies. One review identified as least 16 departments with relevance to food systems, many of which will be relevant for diet shift more specifically (footnote 3). The departments which hold the levers to take action on the issue your evidence is addressing may not be the most obvious food-related departments. There are limited formal mechanisms in place to ensure food issues and activities are connected across government, and you should not assume that connections on particular policy issues are being made by all the relevant actors, or that sharing of evidence is taking place between different departments (footnote 4). For example, stakeholders called on to provide evidence to policymakers have reported delivering the same evidence multiple times to different departments, which were unaware of activities taking place elsewhere in government (footnote 5). Along with responsibilities being shared between government departments, food policy is also made at different levels of government.

Table 5, in the Appendix, maps some of the key diet shift actors to consider, though which are in a position to use your evidence will depend on the issue being addressed and the action to be implemented.

Who exactly are policymakers?

The term ‘policymakers’ is used as a homogeneous catch-all, but in reality this term encompasses a range of different roles. For one, it can be used to refer to both elected officials like members of parliament and unelected officials like civil servants. It also encompasses a range of different roles within government departments, which can be broadly divided into analysts (for example economists, statisticians, and social and operational researchers who develop the evidence base for policy) and policy officials (footnote 6). Research by the Institute for Government has highlighted evidence barriers exist between the different roles: for example, some policy officials see engaging with evidence as the job of analysts (who have good connections and an understanding of academic methods), but because analysts are not well integrated into policymaking they cannot contribute effectively to policymaking (footnote 7).

Identifying practitioners evidence users

The same considerations on the range of possible users hold true for practitioners. There are many on-the-ground actors involved in food systems and some of the key actors you may want to consider are listed in Table 4 in the Appendix. Practitioners that are relevant for actioning the evidence you have produced will depend on the specific issue being addressed and the action to be implemented. A couple of considerations to keep in mind are that individual organisations may be best accessed through evidence brokers and that health and sustainability issues are not always addressed by the same users, for example some organisations have both net zero and health diet teams who still work in silos and may require evidence to be delivered separately.

“Diet and environment are managed by different individuals and teams and this topic needs integration. So diet and health managers need to work with net zero managers.” – Food Industry Trade Association

“Recently we have brought together under the same policy unit our teams who work on nutrition, climate and food poverty to create a more systems approach to these related issues.” – Food Retailer

Identifying end-users, the What Works Approach

The What Works approach to identifying end-users may provide some useful ideas on how to identify the type of users you want to target. Each issue-specific Centre within the What Works Network has its own defined ‘audience’ for its outputs, and they vary in how ‘users’ are defined, on:

- which potential users are prioritised (and which are not)
- how tightly these users are specified
- the relative emphasis on individuals, groups or organisations
- the emphasis on engaging early adopters/champions or a broader audience
- the distinction between the users of Centres outputs and services and the ultimate beneficiaries of the Centres’ work
- equity issues of differential engagement with both the use and production of research. (footnote 8)

Understanding the drives and needs of different diet shift actors

After identifying which actors your evidence is relevant to, the next step is to ensure you understand them, in order to demonstrate:

1) Why they should care about your evidence; and
2) What actions they might be able to take on it.

Users are more receptive to evidence when it is relevant to their interests and priorities (footnote 9) . There is a common desire from users that evidence is sector specific, tailored specifically to different food system actors and accounting for their different priorities and needs. Successful communication also means empathising with your target audience, ideally from the start of the evidence-gathering process (footnote 10). This requires an understanding of what influences someone's ability and motivation to act, such as the political and social context, resource (including time) constraints and what their evidence needs are (footnote 11).

One important distinction to be aware of is between the needs of policymakers and practitioners. While these two types of evidence user are often treated as a single group, their needs - including their incentives for taking action on diet shift - may be quite different (footnote 12). Understanding policymaking, and the role of politics, are crucial for generators wishing to influence policy, and are addressed separately below. Another important difference to be aware of is between types of practitioner, for example professional versus commercial practitioners. In the literature on evidence-use, the practitioner category is dominated by public sector professionals, such as health and education providers. This makes sense if there is a natural alignment between government objectives (for example educational policy objectives) and public sector practitioner objectives (for example teaching practitioner objectives). However, treating commercial practitioners as part of this same group is problematic: the relationship between public policy, or broader social objectives, and commercial practitioner objectives is more complex, and there is potential for conflict between policy objectives (for example, make people healthy) and private sector objectives (such as sell food products).

Depending on the kind of evidence you are producing, you may also need to think about the needs of different users simultaneously. For example, understanding the needs of policymakers involves understanding the needs of the stakeholders that policy is relevant to (and which any policymaker will need to bear in mind when acting on evidence). This may involve demonstrating an awareness of the public acceptability of any recommended policy actions, and also among supply chain actors, or the on-the-ground practicalities of particular policy actions. This is particularly the case if policymakers will depend on businesses to implement a policy action.

Two universal recommendations applicable across all evidence users are: 1) to make evidence 'food-system specific', for example, evidence on carbon cost accounting and net zero goals; and 2) to understand the role other food system actors play in their capacity to act. For example, retailers and restaurants report being heavily reliant on the advice given by, and products available from, their suppliers. In the same way, the actions available to food banks can be limited by their membership of an overarching network with its own philosophy and practice rules, such as the Trussell Trust. The following insights - drawn from the literature and direct from evidence users - detail some of the needs of particular actor groups. Groups are included where particular evidence on them was available and some groups are not therefore included. Policymakers are addressed separately in a dedicated section below.

Commercial practitioner evidence users...

- are likely to have a primary objective around the profitability and reputation of their business

- are concerned about public perception and what their customers want/need
- may be operating with small margins
- may not wish to act on evidence because it could put them at a competitive disadvantage compared to other businesses which are not taking action. For this reason commercial practitioners may express a preference for more legislation around healthy sustainable diets to create a ‘level playing field’
- may not wish to share evidence on their activities because they are commercially sensitive and may be used by their competitors
- may prefer group-based evidence-generation methods – such as workshops, roundtables – to be on an anonymous basis, for example under Chatham House rules, or one-to one anonymous methods such as interviews, due to commercial sensitivity
- are interested in what their peers are doing and whether it is working
- may be generating their own evidence on a particular issue or intervention
- may have multiple divisions and roles, meaning your evidence has to be delivered to multiple places in order to effect action
- also need to consider the messaging of evidence to their customers, and this may require working with respective communications teams to ensure the messages are translated effectively

"Researchers don't always understand how complicated it is implementing new policy in a business like ours. We have thousands of staff with different responsibilities and targets which sometimes are in tension. We have buyers who are paid on the margin they create and we have other functions that are targeted on reducing our social and environmental footprint." – Food Retailer

Health practitioner evidence users...

- have limited actions they can take on healthy sustainable diets other than providing information to citizens
- may not be trained in nutrition
- may not perceive ‘sustainability’ as relevant to health and be unfamiliar with sustainability concepts and principles
- may refer advice about healthy diets on to specialist organisations, including special units on weight management
- have little time to search for evidence themselves and rely on evidence brokers (for example, management, government bodies and public health networks) to relay information

Third sector evidence users...

- may be constrained in the actions they take based on what funding is available
- may be constrained by the impacts - including financial - of any action on citizens, in particular disadvantaged citizens
- may be constrained in what action they can take by membership of an overarching network which sets guidelines on their activities
- may be constrained by scale of operation – for example they work within a specific community rather than at a national or regional level
- if they are working on-the-ground with disadvantaged communities, may have more pressing considerations or immediate actions which are required - for example providing food of any kind - with limited capacity to consider the healthiness or sustainability of that food

“Food is so sticky, it’s so messy and there’s so many people involved. And it [understanding needs] really matters.” – Local Food Partnership

Understanding policymaking and the role of politics

Evidence generators are regularly exhorted to ensure their research has relevance to and impact on policy. In reality, policymaking often takes place behind closed doors, and can be perceived as a confusing and intimidating terrain for scientists and other stakeholders wanting to engage with it (footnote 13).

There are multiple aspects of policymaking which evidence generators need to understand to ensure their evidence has the best possible chance of being adopted. These include: 1) who is responsible for what; 2) what policymakers can do; 3) how the policy process works; 4) the role of political priorities; and 5) the role of public acceptability.

Understanding what policymakers can do

At its most basic level, understanding policymaking means understanding what action policymakers themselves can actually take. There is a relatively limited range of things policymakers can do: which can be boiled down to the ability to exhort, legislate, and allocate resources (footnote 14). When it comes to diet shift, there are a range of different policy levers which can be utilised, and evidence-generators should aim to be aware of what is possible and whether it is effective when recommending particular policy actions (footnote 15). Evidence generators have a tendency to overestimate the food policy levers which reside at local government level, for example (footnote 16). Linked to this point, another consideration is that policymakers themselves do not hold all of the levers for change, and rely heavily on on-the-ground actors to implement actions. This may involve thinking about the implementation/delivery process, and which actors may need to be involved (and may therefore need to be considered when generating and translate your evidence).

“One of the things to understand really about local decision-making is that it needs to have levers that are relevant to its identity and where it sits...You've got to be mindful that we have different levers in different places, and that's what I meant about the appropriateness of the evidence.” – Local Government Actor

Understanding the policymaking process

Along with understanding what policymakers have the power to actually do, evidence generators should have some knowledge of how the process of policymaking process. Researchers often have an idealised understanding of policymaking as a linear and predictable process (footnote 17), an image which is perpetuated by the notion of a ‘policy cycle’ of evidence-based activities from: agenda setting; formulation; adoption; implementation; evaluation; to support/maintenance. In practice, policymaking is more messy, complicated and non-linear (footnote 18), and there are many factors other than evidence provision which influence policy (footnote 19) (see Box 6 below). While this reality exists across policy issues or fields, these characteristics are argued to be particularly pronounced in the case of diet shift evidence because food systems are inherently complex and wide-reaching (footnote 20). By understanding the realities of this process, you can more strategically provide evidence (footnote 21).

Factors other than evidence which influence policymaking

The supply of evidence is only one factor which influences why evidence is adopted, and the policy sciences literature has a long history of identifying many other factors which influence policy, which include:

- the experience, expertise and judgement of policy officials and ministers;
- values and ideologies;
- available resources;
- habits and tradition;
- lobbyists, pressure groups and the media; and

- the pragmatics and contingencies of everyday political life (footnote 22).

Another important consideration is that even if evidence is adopted into policy, this may not result in effective implementation. For example, an analysis of obesity policies over the past 30 years highlighted how obesity evidence was not effectively translated and implemented within UK government strategies (footnote 23).

Understanding the role of political priorities

Evidence which is useful to policymakers explicitly states the policy problem or aspect of a policy problem the evidence addresses. It is important that evidence generators recognise that "a policy problem is not usually the same as a scientific problem, and may have several scientific problems incorporated within it". (footnote 24) Which problems are considered policy problems are influenced by a range of factors (see Box 6 above) and the same is true for potential solutions. Linking evidence to the political priorities of the day and ensuring topics are timely and already of interest to decision-makers (footnote 25) is one way of improving the likelihood it gets noticed when a political 'window of opportunity' is open (footnote 26). Depending on which kind of policymaker you are trying to deliver evidence to this may involve linking your evidence to current departmental objectives or, in the case of elected officials, thinking about what is relevant to their constituency (for example, does an MP represent a rural constituency with a large agricultural community?), or to voters more broadly. Manifesto commitments are another way to identify political priorities.

Closely linked to this is how public acceptability influences policy action which may be based on a perception, or the reality, of issue salience with voters. Anticipating the public acceptability of an action your evidence recommends, and acknowledging it, perhaps even proposing additional actions to mitigate, may reduce the possibility it gets discounted outright. Researchers have demonstrated, for example, that packaging up policy interventions which are less popular with the public (for example food taxes), with interventions which are more popular (such as funding healthy activities) may enhance their acceptability (footnote 27).

Evidence generators can also link their research to particular political or social developments. Governments declaring a 'climate emergency', and the UK's hosting of the climate conference COP 26 in 2021 are identified by evidence users as useful hooks for generators to attach their evidence to.

On a more granular level, politics can also shape how research and policy interact: for example, how a government uses external expertise in policy (footnote 28). How contentious an issue is may determine whether expert advice or evidence is considered, and the perspectives and values of an individual political actor, such as a minister, can shape the relationship between a department and the academic community (see Box 7).

"Pretty much if you're looking at policymaking, you're looking at about one part evidence and 99 parts political strategy." - Local Food Partnership

"Public perception is a big one. There's a really good example, and it's going back a few years…there was a council whose director of public health came in and they did their director of public health report explicitly on climate change. And there was a whole section in there on diet and what the contribution of that was, and that we should be reducing our meat content, and there was a local furore. There was an outpouring… the press, the councillors. It was very poorly landed." – Regional Public Health Network

Understanding research relationships: How politics shapes evidence use in Whitehall (UK

National Government)

Research by the Institute for Government reveals how officials may find it easier to engage with expert advice in less contested areas, where ministers and officials are less likely to have prescriptive government manifesto commitments to stick to, and there are fewer interest groups to consider. In more political areas, evidence and expertise are more likely to be viewed through the lens of a policymaker's values and what they think will be politically acceptable (footnote 29).

Political debates – and sometimes individual ministers – can also shape the relationships whole departments have with academic communities. Along with knowing which departments cover which policy issues, having an understanding of a department's approach to research - for example is it predominantly internally produced or commissioned, does it have a research advisory body - can inform your strategy for dissemination. In the case of the UK Government departments, for example, the Department for Work and Pensions is characterised as having a strong internal research staff but a poor relationship with some parts of the academic community researching social security. The Department for Education has also, at times, had a fractious relationship with the education research community. Departments with strong connections with research communities include the Department for International Development (now incorporated in the Foreign, Commonwealth and Development Office) and Department for Health & Social Care. The Department for Environment Food & Rural Affairs has been building links with the research community through institutional innovations such as its 'Systems Programme Team', set-up in April 2018. The DEFRA Chief Scientist's Office recruited six academics across a range of disciplines to work with six civil service counterparts to embed systems approaches in its policymaking.

Practical examples: Identifying and understanding evidence users

Some resources, and examples, which may be useful for identifying and understanding evidence users include:

- who Makes Food Policy In England? is a map of government departments with relevance to food systems, which can be utilised to identify who holds the levers for change on particular issues.
- the Food And Drink Federation's Net Zero Handbook gives food businesses a set of practical actions they can take to bear influence on and reduce the embodied emissions of their products at the different points of the Farm to Fork supply chain. "It is in a user-friendly format providing actions on next steps that manufacturers can take regarding emissions incurred at each point of the supply chain, as well as outlining the responsibilities for all different business functions such as HR, Strategy, Sourcing, Operations etc. This is to illustrate how it requires a whole organisation approach. We wanted to provide a guide for those people on the ground who don't necessarily know what to do." (Food and Drink Federation)
- the Institute for Government think tank, and the government's own National Audit Office, produce reports analysing the workings of government, or on particular departments, which offer a window into policymaking processes and political priorities.

Checklist

- are you familiar with the wide range of actors with a role in influencing diet shift, and which ones your evidence relates to?
- are you aware that health and sustainability issues may be dealt with by different departments or organisations, or different individuals or groups within departments or

organisations?

- does the organisation you are targeting have a dedicated person responsible for evidence, and if not which individuals need to see your evidence?
- have you accounted for the fact that government departments, or internal divisions in an organisation or department, may not share evidence with one another?
- have you considered the different roles which fall under the umbrella term 'policymaker'?
- have you made your evidence food-system specific?
- have you ensured your evidence is sector specific and tailored to different food system actors?
- have you considered the differing needs of policymakers vs practitioners?
- does any policy action indicated by your evidence involve implementation by practitioners, including businesses, and are their needs acknowledged?
- have you factored in the role other food system actors play in the capacity of particular users to act?
- do you understand what action policymakers themselves can actually take on the issue your evidence addresses?
- have you identified whether the levers for change reside with national or local policymakers?
- have you reflected on the on-the-ground actors which may need to implement policy actions?
- are you familiar with how policymaking works, and the many different influences other than evidence which influence policymaking?
- have you stated the policy problem as opposed to the scientific problem that your evidence addresses?
- can you link your evidence to current political priorities, and/or any political or social events?

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Familiarise yourself with different types of evidence, sources where users find evidence and the role of knowledge brokers

They also access evidence from brokers, as detailed further below. Table 1 below details some of the key types of evidence utilised by diet shift actors, along with some pros and cons, and insights from diet shift evidence users (that participated in the research project).

Table 1 Key types of evidence utilised by diet shift actors

Evidence type	Details	Pros and Cons	Insight from evidence users
Academic	Research conducted to create new knowledge Includes new primary research or synthesis of existing research Follows a scientific method. Research findings are often published scientific journals, following a peer-review process Often accessed via direct relationships with experts/ academics rather than peer-reviewed journals For example: partnerships, advisory groups, commissions, collaborations or networks	**Pros** Peer review process offers reassurance of quality **Cons** May be difficult to access due to paywalls Technical jargon used may be difficult to understand May address only part of a problem (requiring additional synthesis) Sometimes academics are proponents of a particular school of thought May not be quick or responsive enough for practice May fail to clarify actions, for example 'so what' and how can this work for me?	“Although there is a lot of academic evidence out there, most companies will not be resourced to read academic literature / follow debates and so the actions that companies need to take are not clear”. – Food Industry Representative "[what is considered credible] is going to vary with audience but, generally speaking, high quality academic papers. And if you're talking about policymakers, it's going to be named -- if somebody's coming from the Lancet it's going to be taken quite seriously for example.” – Public Health Representative “Our main sources of information, I would say, are the academic published literature on food systems quite broadly, so looking across production and consumption.” – NGO

Evidence type	Details	Pros and Cons	Insight from evidence users
Reports by non-academic organisations, such as governments, non-governmental organisations, professional bodies	May be labelled 'grey literature' (to distinguish it from academic research) Definition of grey literature: "Information produced on all levels of government, academia, think tanks, business and industry in electronic and print formats not controlled by commercial publishing, for example, where publishing is not the primary activity of the producing body. (footnote 1)"	**Pros** Speedier review process means likely to be in the public domain quicker May produce evidence on niche or emerging research areas that are not (yet) addressed in academic publications (due to longer process) **Cons** May combine evidence with ideology of the organisation Grey literature sources can vary hugely in terms of quality Not always subject to same peer-review rigour	"There are some good reports from campaign organisations for example, WWF but you have to understand these type of reports are often a mixture of good science and ideology. You have to cut through this to get to the truth so we do use a range of sources from UKRI, Innovate UK etc. where the evidence has been sanitised for the end user." – Food Retailer "We bring in organisations like Sustain. So we've worked with Sustain a couple pieces of work and they have got a really good reputation." – Regional Public Health Network "Reports that come from PHE [are seen as credible]." – Regional Public Health Network "The sources of evidence we have used have been reports such as WWF Live well Sustainable Diets Report and the EAT Lancet Report. We also use Kantar Data for our own retailer brand, which measures what customers are buying so we can also measure the journey of our shoppers also towards healthy sustainable diets. We also go to conferences and therefore use a combination of internal (Kantar data) and external evidence." – Food Retailer "We also take an active interest in reports coming from other NGOs. We have frequent conversations with lots of NGOs, to keep abreast of work coming out of that sector." – NGO
Organisational Research	Evidence created by an organisation, primarily for its own usage. Includes focus groups, rapid evidence reviews, customer surveys, trials of interventions. Common in the private/ commercial sector, and third sectors Includes formal evaluations and other methods organisations use to monitor their success	**Pros** Faster for organisations Important for confidential projects that may involve a new innovation where there are trademark issues **Cons** Organisation specific and may involve a commercial advantage, or not be deemed appropriate for external audience, meaning much is not published Evaluations may be biased	-
Intermediaries such as media organisations and think tanks	Media is a source of knowledge to identify what is trending/ what people care about / what is topical	**Pros** May alert users to evidence from research projects which they would not have noticed via academic publishing outlets May provide synthesis function **Cons** May have own (biased) agenda and frame the evidence in a particular way	"Media is a source of knowledge to identify what is 'trending'/ what people care about / what is topical; which can then be compared to current government strategies and the 'ethos' of your organisation to select which actions to pursue." – NGO "One of my slides tomorrow is a picture of a local newspaper – the Hull Daily Mail – of a very obese kid in 2010. And, you know, front page of the Hull Daily Mail." – Local Food Partnership
Published Database Statistics	Databases of statistics	**Pros** Credible Free to use Useful to triangulate data with primary insights **Cons** Users may not have skills to access and interpret the data May not include the right kind of data/evidence required (for example the right level of granularity on location, demographics)	"We use evidence to support us to make the case for need…such as National Child Measurement Program data… sort of national statistic on school meals or something like that, so evidence that is actually telling us that the case is there to do something, do something in a certain way, make changes." – NGO
Lay evidence/Tacit knowledge	Although not strictly an evidence source, lay knowledge is an important evidence source for users The 'common sense' justification of feeding people healthy food is also a key driver of practice decisions	**Pros** Can lead to some quick wins regarding the need to make clear changes **Cons** Likely to be influenced by personal biases Unlikely to be representative May not take a holistic view, meaning potential unintended consequences For example: considering the impact of a particular health action have on sustainability?	"You've got an obese mom, you've got an obese dad, you've got both of them obese, you know the risk of that kid is going to be strongly likely to become overweight and obese. You know, what can we do to stop that happening? Because that's where you can put in the intervention that works. Surely. You know, it's kind of the bleeding obvious. I'm a layman, not an academic, but that's the sort of evidence I'd say was available..." – Local Food Partnership

Source: Authors

Where do different evidence users source their evidence from?

There are no hard and fast rules on which users get evidence from where. But the insights below, drawn from both the evidence-use literature and directly from evidence users themselves, provide some pointers. Many evidence users will pull in multiple sources at once.

Policymakers

- prefer a wide range of sources of information, combining their own experience with information ranging from peer reviewed scientific evidence and the 'grey' literature, to public opinion and feedback from consultation
- parliamentary committees cite academic research much less frequently than government, private sector and not-for-profit organisations
- local government officials rely more often on evidence from government, third sector organisations and think tanks than from universities (footnote 2)

Commercial practitioners

- use peers and networks as an important evidence sources (footnote 3)
- get evidence - including lay knowledge - from suppliers and internet sources (particularly SMEs in the hospitality sector)
- of a larger size are likely to use a range of sources but evidence synthesis reports and webinars are seen as very useful
- are likely to use peer learning from conferences and bodies such as IGD and Kantar
- have concerns about physical access to evidence, especially peer-reviewed journals

Third sector organisations

- get evidence from academia, other NGOs, and international sources
- often don't have systems in place around evidence-use (footnote 4)
- can be constrained by funding requirements, including reporting, which shapes the types of evidence or evaluation employed
- use population-level data such as on demographics and income to justify the need for a specific programme or practice, and especially for funding applications
- use media as a source of knowledge on what is 'trending'/ what people care about/ what is topical; and then compare that with government strategies and the 'ethos' of their organisation to select which actions to pursue
- may have an inherent suspicion of government commissioned research, particularly at grassroots community level, where it may be felt there is a hidden agenda behind the evidence

"It depends on what audience we're wanting to speak to. So we can pull in evidence at a national level, we can pull in academic evidence. So a story about a person to an elected member is much more powerful than what we'd say 'gold standard' evidence base. So it needs to be a combination of the two because you're trying to pull on different levers and use different players in the system because they all have an influence. It's like a whole-systems approach to evidence gathering. You need different bits to speak to different people. I think academics work really really well when you're talking to directors of public health and senior policymakers. Less so I think at a local level. I think, you know as I've said, stories make a difference. The experience of local organisations make a difference. It depends really." – Regional Public Health Network

Understanding the role of credibility (and how to demonstrate it)

Evidence and knowledge that is seen as credible, or comes from a trusted source, is much more likely to be considered valuable and ultimately be adopted / implemented into policy and practice. Credibility and trust are particularly important for evidence users addressing healthy sustainable diets, due to a general perception that the evidence related to it is unclear and often inconsistent. Trusted sources could be:

- an individual or organisation that has a direct relationship with the practitioner (through a partnership, network or collaboration); or
- an individual or organisation that has a reputation for being independent, credible and / or respected.

Credibility concerns both the evidence generated and the disseminator. For that reason, credibility stretches across both generation and translation.

Understanding which evidence sources are credible can be challenging for users, and different evidence sources are associated with different credibility issues. For example, evidence from reports by campaigning organisations may be viewed as a mixture of science and ideology, which needs to be "cut through to get to the truth" (footnote 5). Different evidence users also have different perspectives of what credibility is. For some it may be about scientific credibility, whereas for others real-world credibility is more of a priority. An example is the International Panel for Climate Change, which is hailed around the world as an example of robust scientific endeavour, but has also been criticised for focusing on scientific evidence at the expense of the kind of real-world evidence required to improve policy and practical action on climate change (footnote 6). These different perspectives on credibility are also relevant to how evidence-generators 'frame' their evidence: for example, in terms of translating uncertainty or complexity, or making policy recommendations. There are a series of steps which users can work through to evaluate an evidence source including:

- currency – when was the information published or posted and has it been updated at any point
- relevance – does the information relate to the users' topic or answer their research questions? What is the intended audience and academic level?
- authority – legitimacy of author/s
- accuracy – is the information supported by evidence (references, research data) and can the information be verified in another source?
- purpose – is the information fact, opinion or propaganda. How objective is the information and are there any political, ideological, religious, cultural or personal biases evident in the source? (footnote 7)

Academic evidence is often associated with being more credible, because it goes through a robust process of peer review, though some evidence users are not always sure about the independence of this process, when particular journals are supportive of a certain school of thought. One of the ways that evidence users are recommended to ensure credibility of academic research, and avoid 'cherry picking' of evidence based on an author's own bosses or interests, is to focus on systematic reviews. Systematic reviews of evidence aim to be exhaustive, and cover all of the available evidence on a particular issue or question as possible, using explicit methods, and may screen studies for quality (footnote 8). However, systematic reviews in the field of diet shift are relatively rare (discussed in Principle 1). Academic evidence-sources also suffer from a range of general barriers such as lack of access, which may be due to them being behind a paywall, or because users don't have the capability to understand them.

“Most of food guidance I think is generally met with a little bit of derision. People say, ‘well one day they said butter’s bad for you and then the next day it’s good for you’... there’s a lot of inconsistency.” – Food Bank Manager

“Organisations with good reputations tend to go down better than, say, quite strident campaigning organisations, which wouldn't necessarily go down quite as well with politicians.” – Regional Public Health Network

Evidence users would like an independent body to signpost and curate the evidence, and the International Panel For Climate Change is seen by some as a good model which could be applied to food more specifically. In the absence of such a body, existing knowledge brokers and other types of intermediaries who have a reputation with a particular evidence user group are the next best option.

Methodology as a shorthand for credibility

Improving the credibility of your evidence can be achieved by ensuring the methods used to produce it are robust and clearly explained. Both policy and practice evidence users report that methodology can be an important signifier of credibility. Papers which are useful to policymakers are “explicit about methodologies, limitations and weaknesses” (footnote 9). Evidence users are also concerned about relevance, robustness (of generation, analysis and interpretation of evidence) and generalisability.

“This may sound obvious to writers from some scientific traditions but, for example, in many social sciences, very limited methods may be outlined in reputable journals. The technical part of any policy team should be trying to assess the strength of each bit of evidence used, whether via formal grading system as used in medical guidelines or more informally. Doing this without methodologies laid out is nearly impossible (footnote 10).” – Chief Medical Officer and former chief scientific advisor Sir Chris Whitty

Similarly, third sector evidence users examine methodology to determine how credible a piece of evidence is.
“We look at the credibility of evidence and also when we commission we take a good look at the methodology behind the evidence. For example when looking at Life Cycle Analysis, has the team take into account systems boundaries, or doing consumer work, how many people and what type of people in which demographics?” – Large International NGO

Conversely, lack of robustness can mean evidence is weaponised to avoid taking action; those in favour of continuing with the status quo may argue the evidence isn’t ‘good’ enough to justify change. While you can’t stop people from arguing about methodology, being clear, open and confident in your methods can pre-empt any disputes.

“...people make statements, and sort of broad statements, and it's very important that they're well-evidenced. Not necessarily for the people who are going to pick up and want to push it forward, but for the people who are going to try to stop it. If you do not evidence what you're talking about very well, it's almost handing your opposition a tool by saying 'well they've said this but it's come from here and that's just naff, you know, it's not on.” – Regional Public Health Network

Relationships as a route to trust

Building relationships is often recommended as a way of developing trust between evidence generators and users, increasing engagement and project credibility (footnote 11), and researchers are encouraged to build diverse networks and contacts by taking advantage of informal channels such as coffee, lunchtime seminars and distributing research PDFs via email (footnote 12). Putting in the effort early on to build these relationships and sustaining them over time enables

researchers to direct experience with the practical decision-making process and allows them to adapt to their audience more effectively (footnote 13). Knowledge brokers, such as What Works Centres and other brokers, can also support building trust and connecting generators and users.

“We decided to partner with a particular research programme because we both trust them and they have got a strong track record in food systems work. They work differently to other researchers we have come across. They take time to understand our challenges and always regularly update us on the progress of the work. Also they give us time to ensure we can participate by giving us longer lead times to gain internal support and sign off. It is more of an equal partnership.” – Food Retailer

However, the networks that policymakers operate within can influence which evidence they access, and what kind of evidence they consider useful or valid. This can be problematic for evidence generators outside those favoured networks, or with different perspectives to the current paradigm (footnote 14). Relationship-building activities also require a major investment and skills, which some evidence generators, in particular researchers earlier on in their career, may not have access to (footnote 15).

Importance of evidence brokers

Brokers are intermediaries between evidence generators and evidence users. Brokers therefore play an important role in translating and disseminating evidence for users. Including these actors in your dissemination strategy could improve the chances your evidence reaches users, and in a format they find accessible and credible.

Brokers are used by all different user groups, who have their own particular types and favoured organisations. Brokers are a particularly important part of how academic evidence and expertise enter policy. For example, surveys have revealed that policy officials, including at national and local government levels, and Parliament, use brokers such as media organisations and think tanks more often than going directly to academics. Parliamentary committees cite government, private sector and not-for-profit organisations much more often than academic evidence, and local government officials rely more often on evidence from government, third sector organisations and think tanks than from universities (footnote 16). The Parliamentary Office for Science & Technology is an important dedicated source of evidence for UK parliament (footnote 17), along with parliamentary clerks and librarians. Evidence users, particularly those looking for ways to ensure the credibility of evidence, other than accessing via peer-reviewed journals, may prefer to access it through learned societies (such as the Royal Society, Royal Statistical Society, British Academy and others) (footnote 18).

“One of my favourite evidence reports was the Future Farming and Environment Evidence Compendium, which brought together a range of evidence sources including academic, quality think tanks and select committee reports to provide some very useful data analysis on the state of the food and farming sector in the UK. This allowed us to look at where the weak areas of our food system existed." – Former Policymaker

For practitioners, whether they be professional or commercial, their relevant professional body is an important source of evidence. Such bodies can play a role in synthesising, translating and disseminating evidence for their networks, based on what they judge their members require to take effective action on the ground. There are many different food industry trade associations which play a role in both producing and translating evidence for their members. Networks relevant in the third sector include: Sustain: the Alliance for Better Food and Farming; the Sustainable Food Places Network; the Trussell Trust and the Independent Food Aid Network.

Practical example: Participant Recommendations

The following are examples, directly sourced from evidence users, of what has worked well in their experience:

- “We like the launch of a report offering new insights that has synthesised complex evidence that is combined with a webinar. You don’t have to read the full report you can just jump onto a one hour webinar to get the evidence summary and new insights. A good example was the launch of the OECD report Making Better Policies in Food Systems, which is over 200 pages long. They launched the report and in partnership with academic group N8 Agrifood presented a webinar with insights from responders and for a retailer it was so useful the whole webinar. This approach saves us a lot of time.” ~ Food Retailer
- The British Nutrition Foundation was mentioned by several research participants, as producing useful summaries, by a team of trained professionals. “They also organise really good webinars online where you can jump on for an hour and really bring yourself up to date quickly.” ~ Food Retailer
- Joint working between a UK Government Department and the SysRisk research team (one of the COVID-19 grants) has built a new way of co-creating research and a new protocol tool to help other government departments identify systemic risks. Trust was built initially by co-designing the research proposal and then there was an equal partnership in the research process which built further trust. For example, both parties would present at research workshops with stakeholders. (Systemic Environmental Risk: process to appraise interventions for complex risks Final Report and Presentation)

Checklist

- are you aware of the pros and cons of different types of evidence?
- have you factored in that users source different types of evidence and do you understand why they use it?
- do you know which kinds of evidence are seen as credible by different users?
- can you utilise knowledge brokers or other intermediaries to add credibility to your evidence?
- have you demonstrated credibility through using and detailing methods which are robust and clearly explained?
- are you working to establish trusted relationships with users and are the resources required for this available to you?
- have you identified the evidence brokers that can be used to reach particular actors?
- is it possible to disseminate your evidence via a trusted scientific body?

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16. Sasse, T. and Haddon, C. (2018) 'How government can work with academia,' Institute for Government.

17. Parliamentary Office of Science and Technology.

18. Breckon, J. and Dodson, J. (2016) 'Using evidence: What works? A discussion paper,' Alliance for Useful Evidence.

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Be clear, concise and direct

When communicating evidence, findings and recommendations should be clear and concise (footnote 1), with discussion kept short to avoid overwhelming the audience with information and complexity (footnote 2). Language used should be selected to match the knowledge base of the audience and common terms and phrases should be prioritised over jargon (footnote 3). Many recommendations suggest evidence generators aim for the "general but not ignorant" reader (footnote 4). Providing quick summaries and take-aways can aid comprehension (footnote 5). A closely related principle is to be visual. Evidence users get frustrated with the use of jargon, inaccessible language and impractical length. If documents are long you should include an executive summary and consider creating a short briefing version, or other accessible format.

Depending on the kind of formats you decide to present your evidence in, you might want to consider employing the services of a professional editor along with professional design services to improve the clarity of your message.

"It's incredibly important when speaking with community groups on the ground that evidence generators are clear and concise and able to communicate effectively in layperson's terms. This can be very powerful in getting the message across." – Business and Community Leader

"Guidelines and evidence tend to be boring and complicated." – Foodbank Manager

Another frustration is inconsistent and/or indirect findings. Some users also feel that evidence would be easier to understand, as well as perceived as more credible and less conflicting, if evidence generators (and specifically academics) were more direct about results and recommendations. For example, when asked a yes or no question such as 'should we eat locally', they should provide a yes or no response rather than providing too much subjectivity and detail. However, this is challenging when evidence addresses complex topics, or where the evidence base is not yet established, and some users may prefer findings to be kept neutral, rather than generators advocating for a particular conclusion or course of action.

Clarity on Definitions: the case of Sustainable Diets

An illustration of the challenge of providing clear, concise and direct evidence is sustainable diets. While the health dimension of healthy sustainable diets is broadly agreed, there is no single definition for what it means to have a 'sustainable' diet. Defining sustainable diets is addressed in Appendix C. For evidence users this is a big barrier to adoption; they want more clear, decisive evidence on what is meant by a 'sustainable diet' and how to achieve this. Clear guidance and

actions for how to achieve sustainable diets and shift consumer choices are also considered a barrier to action: for example, how do you measure the complex issues of sustainability (for example, carbon footprint, water consumption, soil degradation, pesticide use, etc.) as a whole and how do you effectively communicate that information to the consumer? (footnote 6)

Make practical actions obvious

To ensure your evidence is adopted to change practice, being clear about what practical actions need to happen is fundamental. These actions may appear blindingly obvious to an evidence generator who has spent months researching a topic and thinking about how it could have policy 'impact', but not to the evidence user themselves. Recommendations around 'more evidence is needed' are often viewed as unhelpful. If more evidence is needed, be specific about what evidence and how it will help. Making practical actions explicit is particularly important when providing evidence to practitioners, who want clear recommended actions on what to do here and now (backed up with evidence on why the recommended action should be taken). For example, dieticians reading the 'One Blue Dot' resources on healthy and sustainable diets from their professional body, the British Dietetics Association, wanted to see practical resources such as meal swap ideas, inexpensive plant based meals, and fast food/takeaway options. Developing these kinds of recommendations requires understanding the user.

Making policy recommendations: a fine balance between demonstrating relevance and demonstrating naivety

Researchers should be cautious about uninformed or naive recommendations. In a paper reflecting on how scientists can provide the most effective policy advice, the UK Chief Medical Officer and former departmental chief scientist Sir Chris Whitty says researchers should not feel the need to spell out policy implications, arguing that "this may sound counter-intuitive, but many good scientific papers are let down by simplistic, grandiose or silly policy implications sections". This sentiment is echoed in the evidence reviews on what works for bridging research and policy, which recommend researchers are "humble, courteous, professional, and recognise the limits to their skills when giving policy advice" (footnote 7).

"Policymaking is a professional skill; most scientists have no experience of it and it shows. In DFID, (the Department for International Development) we stopped asking people undertaking commissioned systematic reviews to write a 'policy implications' summary of their review. This was because the understanding of the real policy questions were usually poor even when the review was itself very well done and therefore undermined the paper. Worse, trying to work up to a policy position can unconsciously bias scientists towards trying to get a neat policy narrative from a complex picture, or downplay inconvenient facts. Therefore, in general, the data collection and analysis process and the policy process are best kept separate. If you feel it is useful to give your policy analysis based on your data be modest: few papers underestimate their policy importance, many substantially overestimate it and many do not provide the social context." – Chief Medical officer, and Former Chief Scientific Adviser Sir Chris Whitty

Upstream solutions enable adoption

Commercial evidence users are keen that generators recognise the importance of government standards and regulations to them taking action toward healthy and sustainable diets. Large retailers describe how regulations help to create 'a level playing field' in which the additional costs did not immediately mean they had to sacrifice competitive pricing.

Translating evidence to enable users to influence on the ground citizens

Another consideration you may wish to reflect on and address is how your evidence can be translated by users to citizens on the ground. Complex evidence and messages can be challenging to translate. Thinking about how an evidence user may do this, and offering ideas along with your evidence, may enable your evidence to be actioned more successfully.

“It would be really helpful for practitioners if academic journals had a requirement that each paper had to write a section on managerial implications of this research to practitioners. This would be most welcome for us." – Food Retailer

Practical examples: clear, concise and direct communication

The following are examples of clear communication on healthy sustainable diets, and ways to achieve it:

- the National Food Strategy Independent Review was published in 2021. It contains an extensive review and synthesis of the evidence on food and its associated challenges for health and sustainability, and analysis of that evidence, presented with the use of accessible language and infographics and other design devices. “The National Food Strategy Plan is a really good example of clear accessible writing which I prefer. I have wondered for several years what a food system lock-in refers to and in the Plan they are referred to as system traps, I get it now!” – Local Government Representative
- the Centre for Food Policy’s Rethinking Food Policy series of briefs involved working with a professional editor. The editor provided valuable expertise to the academic authors, both in terms of the clarity of message and the presentation of the briefs overall.
- one Blue Dot is the BDA's Environmentally Sustainable Diet Project created to help make its Sustainable Diets Policy a reality. It includes a toolkit of information, graphics, tools and links to help practitioners improve their understanding of environmentally sustainable diets and discuss these with patients or clients.

Checklist

- does the language you have used match the knowledge base of the audience?
- has any jargon, or specialist terms, been translated into common terms and phrases?
- is the length of your document as short as possible, without losing important detail?
- would your materials benefit from input from a professional editor?
- have you made your evidence conclusions or recommendations as direct as possible while acknowledging complexities or uncertainties?
- have you been clear which practical actions should result from your evidence?
- have you been specific about what further evidence is needed and why?
- if giving policy advice, are your recommendations informed and sensible?
- have you considered the role of upstream government standards and regulations in commercial practitioners adopting evidence?
- can you help users to translate your evidence to benefit citizens on the ground?

1. Sources: Bazalgette, L. (2019) Supporting evidence-informed children’s social work: Creating a What Works toolkit, Gov.uk [Blog]; Oliver, K. and Cairney, P. (2019 ‘The dos and don’ts of influencing policy: a systematic review of advice to academics,’ Palgrave

Communications, 5(21); Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98); Dovidio, J. F. and Gaertner, S. L. (2007) 'Communicating basic behavioral science beyond the discipline: reflections from social psychology' in Handbook on Communicating and Disseminating Behavioural Science, p. 93-109.

2. Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98).

3. Sources: OECD (2021a) 'Making better policies for food systems: Executive summary,' OECD iLibrary; Bazalgette, L. (2019) Supporting evidence-informed children's social work: Creating a What Works toolkit, Gov.uk [Blog].

4. Oliver, K. and Cairney, P. (2019 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21).

5. Oliver, K. and Cairney, P. (2019 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21).

6. For example, Feeding Liverpool (2022) The good food plan OR Foresight (2011) The Future of Food and Farming Report. Gov.uk.

7. Oliver, K. and Cairney, P. (2019 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21).

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Think about how you want to 'frame' your evidence

The term framing refers to the emphasis placed on specific aspects of a topic, which in turn influences how that topic is understood by the audience (footnote 1). Framing happens in all types of communication, especially when a complex topic, such as scientific evidence, needs to be communicated quickly and concisely (footnote 2). Actors compete to draw attention to one 'image' of a problem, and limit attention to a small number of feasible solutions (footnote 3). Like any evidence interpretation, how much emphasis and on what aspects needs to be carefully considered when presenting your evidence (footnote 4).

At its most basic level, framing your evidence can mean emphasising the 'why' question: 'why is this evidence relevant' to a particular user. It can be used as a tactic to present evidence in a way that is appealing to policymakers and practitioners, demonstrating its relevance and salience to their priorities (footnote 5). Frames are also useful tools to guide users to clear conclusions (footnote 6).

Another framing decision is whether to position yourself an 'issue advocate' (for example, framing the evidence in a persuasive style) or an 'honest broker' (framing it as neutrally as possible)

(footnote 7). Evidence is often perceived to be ‘neutral’ rather than ‘persuasive’, but framing influences which message is conveyed to policymakers and practitioners (footnote 8).

“Another positive attribute [of papers which are useful to policymakers] is the authors have made a serious attempt to minimise their own biases in both methodology and interpretation. Scientists can be advocates, or they can provide the best possible balanced assessment of the evidence but they cannot do both simultaneously. It has to be clear to policymakers which horse they are riding. Papers seen as advocacy are likely to be discounted” (footnote 9) - Chief Medical Officer and former Chief Scientific Advisor Sir Chris Whitty

The type of evidence you are presenting may determine which approach you take. For example, if your evidence challenges an existing paradigm, you may need a persuasion strategy good enough to prompt a shift of attention to a policy problem and a willingness to understand that problem in a new way, or convince that a different course of action is possible (footnote 10). An example of this related to diet shift is how advocates are trying to reframe the discussion on obesity away from individual responsibility and information based policy actions, and on to a more focus on the food environments and how they influence eating habits.

"Sometimes we have elected members and senior decision-makers and it just doesn't fit their political view and they're just not having it -- and I've heard it on several occasions. And it's irrefutable evidence, but no. It doesn't fit 'the narrative' that they would like and so it gets discarded." – Regional Public Health Network
Whichever framing approach is chosen, an important rule of thumb is to be explicit about what is evidence and what is interpretation within a message (footnote 11).

Telling stories to help your message stick

There is growing recognition that communicating evidence in the form of a story may help users to connect to the message and motivate action. Storytelling can be used to persuade policymakers of a course of action (footnote 12). Evidence users in local government have described how powerful stories could be for inspiring action with the public, especially when it is a first-hand experience or account. Third sector evidence users also report it can also be effective for motivating individuals and inspiring action at the grassroots level and for ‘mobilising a movement’ more broadly. However, storytelling is an acquired skill, and an acquired taste, and some users may find using it to communicate evidence suggests that evidence is less credible, or rigorous.

“We have been trying to persuade our executive team to invest in our climate impacts plan. Then we organised an event where several farmers (suppliers) came to talk using stories about the challenges they were facing from increased flooding and pests and diseases. They were brilliant and the exec team then agreed to fund the plan.” – Food Retailer

Practical example: Framing evidence

Some food business policy teams have used farmers and those directly impacted by climate change to use storytelling of real life events and experiences to persuade their senior management team to invest in their Climate Action plans.

Checklist

- have you framed your evidence in terms of why it is important?
- aree you framing your evidence as an advocate or as an honest broker?
- have you made it clear what is evidence and what is interpretation within your message?
- would it be appropriate to incorporate a storytelling dimension into your evidence?

1. Sources: Druckman, J. and Lupia, A. (2017) ‘Using frames to make science communication more effective’ in Oxford Handbook of the Science of Science Communication [restricted access]; Breckon, J. and Dodson, J. (2016) ‘Using evidence: What works? A discussion paper,’ Alliance for Useful Evidence.

2. Druckman, J. and Lupia, A. (2017) ‘Using frames to make science communication more effective’ in Oxford Handbook of the Science of Science Communication [restricted access].

3. Oliver, K. and Cairney, P. (2019 ‘The dos and don’ts of influencing policy: a systematic review of advice to academics,’ Palgrave Communications, 5(21).

4. Sources: Zampini, G. F. (2018) Evidence and morality in harm-reduction debates: can we use value-neutral arguments to achieve value-driven goals? Palgrave Communications, 4(62); Cairney, P. and Kwaitkowski, R. (2017) How to communicate effectively with policymakers: combine insights from psychology and policy. Palgrave Communications, 3(37); Druckman, J. and Lupia, A. (2017) ‘Using frames to make science communication more effective’ in Oxford Handbook of the Science of Science Communication. Available at [restricted access]: University of York

5. Sources: Sohn, J. (2018) Navigating the politics of evidence-informed policymaking: strategies of influential policy actors in Ontario. Palgrave Communications. 4(49); Witting, A. (2017) Insights from ‘policy learning’ on how to enhance the use of evidence by policymakers. Palgrave Communications, 3(49); Breckon, J. and Dodson, J. (2016) ‘Using evidence: What works? A discussion paper,’ Alliance for Useful Evidence.

6. Sources: Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) ‘Creating and communicating social research for policymakers in government,’ Palgrave Communications, 5(98); Zampini, G. F. (2018) Evidence and morality in harm-reduction debates: can we use value-neutral arguments to achieve value-driven goals? Palgrave Communications, 4(62); Cairney, P. and Kwaitkowski, R. (2017) How to communicate effectively with policymakers: combine insights from psychology and policy. Palgrave Communications, 3(37).

7. [1] Sources: Oliver, K. and Cairney, P. (2019) ‘The dos and don’ts of influencing policy: a systematic review of advice to academics,’ Palgrave Communications, 5(21); Zampini, G. F. (2018) Evidence and morality in harm-reduction debates: can we use value-neutral arguments to achieve value-driven goals? Palgrave Communications, 4(62).

8. Sources: Oliver, K. and Cairney, P. (2019) ‘The dos and don’ts of influencing policy: a systematic review of advice to academics,’ Palgrave Communications, 5(21); Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) ‘Creating and communicating social research for policymakers in government,’ Palgrave Communications, 5(98); Sohn, J. (2018) Navigating the politics of evidence-informed policymaking: strategies of influential policy actors in Ontario. Palgrave Communications. 4(49); Zampini, G. F. (2018) Evidence and morality in harm-reduction debates: can we use value-neutral arguments to achieve value-driven goals? Palgrave Communications, 4(62).

9. Whitty, C.J., 2015. What makes an academic paper useful for health policy? BMC Medicine, 13(1), p.1-5.

10. Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21).

11. Sources: Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21); Mayne et al. (2018) Using evidence to influence policy: Oxfam's experience. Palgrave Communications, 4(122); Sohn, J. (2018) Navigating the politics of evidence-informed policymaking: strategies of influential policy actors in Ontario. Palgrave Communications. 4(49); Zampini, G. F. (2018) Evidence and morality in harm-reduction debates: can we use value-neutral arguments to achieve value-driven goals? Palgrave Communications, 4(62); Cairney, P. and Kwaitkowski, R. (2017) How to communicate effectively with policymakers: combine insights from psychology and policy. Palgrave Communications, 3(37).

12. Sources: Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21); Crow, D. and Jones, M. (2018) Narratives as tools for influencing policy change. Policy and Politics, 46(2), p. 217-234.

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Be visual and explore different formats

Aesthetically pleasing and easy-to-understand visuals help policymakers and practitioners process information quickly and easily (footnote 1). Improving the visual appeal of your evidence ranges from simple changes such as using headings, to inserting graphs, tables, and charts, or using icons and infographics to save space and convey complex information quickly (footnote 2). Analysis on the use of visuals such as diagrams has demonstrated that their inclusion is associated with higher citation rate for scientific papers. Contrasting colours and being consistent with designs and formatting (footnote 3) can also improve the chances of your evidence being communicated effectively.

Presenting the evidence in an exciting way (such as through video, social media, a personal experience, etc.) is more likely to engage and connect with audiences, particularly if they are time poor. Icons can be helpful, but care needs to be taken to ensure they are understandable and representative of the concept they refer to (footnote 4).

There are creative software programmes, such as Canva, which you might want to utilise to make your evidence outputs more visual. You might also want to consider employing the services of a professional designer to make your findings more visually appealing.

"We developed a set of animations as it's critical to engage with people outside of the established media network as there is a lot of mistruths told about issues around diet and environment. The media seems very 'adversarial in nature' on this topic." - Community Shop owner and working group member of the Liverpool Good Food Plan.

Consider the best format to communicate your message (and consider using multiple formats)

Different evidence users have different resources, needs, capacity and interests and so, materials should be designed accordingly (footnote 5). Using multiple mechanisms can also ensure evidence caters to different learning styles, as can balancing auditory and visual presentations. It is also important that evidence generators consider digital inequality, particularly when end-users are individual citizens (footnote 6). Delivery of a piece of evidence using multiple formats (emails, webinars, workshops, summaries, videos, etc.) improves the likelihood that it will reach the user and therefore be actioned. It is important to be clear why you are using a particular communication format. It is also important to ensure formats provide links for those who want to find out more, including what scientific papers a message is based on.

“We like the launch of a report offering new insights that has synthesised complex evidence that is combined with a webinar. You don’t have to read the full report you can just jump onto a one hour webinar to get the evidence summary and new insights. A good example was the launch of the OECD report on ‘Making Better Policies in Food Systems’ which is over 200 pages long. They launched the report and in partnership with academic group N8 Agrifood presented a webinar with insights from responders and for a retailer it was so useful the whole webinar. This approach save us a lot of time.” – Food Retailer

“To me policy brief says ‘boring’, the average Joe wouldn’t be reading it” – Academic

"Long documents don't do anyone any good in this area I think is the really key thing. Nobody wants to read a 15-page systematic review on something -- and I say no one, the people who are decision makers, the people who are extraordinarily busy. What they will do is send people off to check evidence, depending on the person. Some people will be very keen to know where is this coming from, especially if they're challenging that position." – Regional Public Health Network

There is varying evidence of effectiveness for different formats. For example, many evidence generators and translators are strongly encouraged to produce policy briefs based on their work. But in reality the evidence of their effectiveness in terms of impacting policy or practice is poor. Table 2 below provides examples of different mechanisms, including a description, the challenges and benefits to using it and a description of its effectiveness based on available literature. The mechanisms are colour-coded by effectiveness: red being not effective, yellow being somewhat effective and green being fairly effective.

Table 2. Mechanisms for evidence communication and dissemination (footnote 7)

Mechanism	Description	Challenges	Benefits	Effectiveness
Briefs	“A concise standalone document that prioritises a specific policy issue and presents the evidence in a non-technical and jargon-free language; in general, the purpose is to distil or synthesise evidence with the intention of influencing thinking and actions of policy actors” (footnote 8)	Clarity and maintaining concise messaging Bias Comprehension and unpredictable knowledge base of audience	Relevant and salient (often commissioned) Easy comprehension Direct engagement on specific topic	Valued by participants but little demonstration of impact on policy or practice Largely ineffective for addressing institutional / structural barriers to evidence engagement
Blogs and Social Media	Quick summaries and highlights of key findings from scientific research, written colloquially	Clarity and maintaining concise messaging Credibility and bias Relevance and salience	Open access Easy comprehension Convenient	Effective for reaching a wide audience and building awareness Unclear / mixed for influence on policy / practice (footnote 9)

Mechanism	Description	Challenges	Benefits	Effectiveness
Conferences and Seminars	Formal oral and (sometimes) visual presentations (in person and virtual) of evidence to a group	Engagement Clarity and maintaining concise messaging Comprehension and unpredictable knowledge base of audience	Common venue Often funded Recognition	Ineffective for influencing policy and practice
Data visualisation	Using design principles to communicate complex information (for example graphs, charts, icons etc.)	Clarity Balancing complexity while being concise Bias	Easy comprehension Engaging Accessible	Highly effective when done well (footnote 10)
Toolkits	Practical guides / handbooks on possible ways to adopt and implement evidence	Clarity Coverage Relevance and usefulness	Easy comprehension Practical to adopt	Moderately effective when tailored to audience needs

Different users may find different mechanisms useful / familiar. For example, the third sector organisation Incredible Edible is a now a large activist network, but the initiative was actually spurred by a TedTalk they watched; they adapted the model described in the talk to create the Incredible Edible Project.

Practical examples: Visual Communication

The following examples illustrate different methods of visual communication:

- the Liverpool Good Food Plan has no published document - it's an interactive website complimented by five short animations that are voiced by people with lived experience; it was six months of work that did not have a written output.
- the Food Systems 'Flower' Figure is a 'visual thinking tool', created to help policymakers and practitioners to consider the food system as a whole, and support them to identify connections between activities, outcomes and the related policies. The content of the Figure is grounded in the literature around food systems and food policy, and the design itself was co-created with a professional designer. The Figure has been utilised across policy, practice and academia. [include thumbnail of the diagram]

Checklist

- could you make your evidence more aesthetically pleasing and easy-to-understand through the use of visuals?
- could you present your evidence in an exciting way, such as through video, social media, or a personal experience?
- if using icons, are you confident they are understandable and representative?
- have you considered using a professional designer to help communicate your evidence?
- are there different formats you could utilise (emails, webinars, workshops, summaries, videos, etc.) to improve the likelihood your evidence will reach the user and therefore be actioned?
- could you employ multiple mechanisms and a balance of auditory and visual presentations, to cater to different learning styles?
- are you familiar with the varying evidence of effectiveness for different formats?
- have you considered digital inequality, particularly if your end-users are individual citizens?

1. Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98); *See also:

Brick, C. (2020) What works for What Works: How to communicate effectively, Gov.uk [Blog]; Brick, C. and Freeman, A. L. J. (2020) Communicating evidence for policy makers in icons and tables: What works? Preprint. University of Amsterdam.

2. Sources: Brick, C. (2020) What works for What Works: How to communicate effectively, Gov.uk [Blog]; Bazalgette, L. (2019) Supporting evidence-informed children's social work: Creating a What Works toolkit, Gov.uk [Blog].

3. Sources: Brick, C. (2020) What works for What Works: How to communicate effectively, Gov.uk [Blog]; Brick, C. and Freeman, A. L. J. (2020) Communicating evidence for policy makers in icons and tables: What works? Preprint. University of Amsterdam; Bazalgette, L. (2019) Supporting evidence-informed children's social work: Creating a What Works toolkit, Gov.uk [Blog]; Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98).

4. Brick and Freeman (2021).

5. Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98).

6. Sources: Bazalgette, L. (2019) Supporting evidence-informed children's social work: Creating a What Works toolkit, Gov.uk [Blog]; Breckon, J. and Dodson, J. (2016) 'Using evidence: What works? A discussion paper,' Alliance for Useful Evidence.

7. Sources: Balian, E. V. et al. (2016) 'Supporting evidence-based policy on biodiversity and ecosystem services: recommendations for effective policy briefs,' Evidence & Policy, 12(3) [restricted access]; Breckon, J. and Dodson, J. (2016) 'Using evidence: What works? A discussion paper,' Alliance for Useful Evidence.

8. Balian, E. V. et al. (2016) 'Supporting evidence-based policy on biodiversity and ecosystem services: recommendations for effective policy briefs,' Evidence & Policy, 12(3) [restricted access].

9. Breckon, J. and Dodson, J. (2016) 'Using evidence: What works? A discussion paper,' Alliance for Useful Evidence.

10. Langer, L., Tripney, J. and Gough, D. (2016) 'The science of using science: researching the use of research evidence in decision-making,' UCL Institute of Education.

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Get your timing right

Timing is a cross-cutting theme across several of the Guiding Principles, but is addressed specifically again here because getting the timing right is a well-established enabler of evidence-use. There are several different factors to consider when aiming to time evidence delivery for maximum effectiveness: the timing of evidence; the time available to review it; and the number of times it is delivered. Firstly, evidence should be timed to align with the needs of users. This can be challenging due to the different timetables which characterise evidence generation, policy and practice. One issue is that policy-making is generally extremely fast by academic standards, and complex policy decisions are taken in days, weeks or at most a few months… "the time it takes a competent PhD student to begin an introductory chapter" (footnote 1). Policymaking does not wait for evidence to be ready. This means making papers timely can involve compromises on developing the 'perfect' piece of evidence, if by the time it is available the window for adoption is past.

"An 80% right paper before a policy decision is made is worth ten 95% right papers afterwards, provided the methodological limitations imposed by doing it fast are made clear. (footnote 2)" – Chief Medical Officer and former chief scientific advisor Sir Chris Whitty

Secondly, because policymakers and practitioners tend to be time poor, evidence must be as convenient and accessible as possible (footnote 3). Thirdly, frequent and ongoing communication throughout the project are often more useful than one summative presentation at the end (footnote 4). Update emails, with key takeaways concisely summarised, 'bitesize' presentation sessions and informal conversations over coffee or lunch are all recommended tactics to keep policymakers and practitioners engaged in the research and receptive to evidence findings (footnote 5).

Practical example: Timing

WWF timed the launch of a new initiative to coincide with COP26. The organisation convened its advisory group, along with UK retailers, to launch new metrics to half the environmental impact of an average UK shopping basket. The metrics have been co-created by WWF with industry and a range of other organisations.

Checklist

- does the timing of your evidence match the needs of users?
- are there compromises in the development of your evidence which mean it might be available at a crucial time for a particular user?
- have you made your evidence as accessible as possible for time poor users?
- could you communicate your evidence throughout a research project rather than wait until the end?
- have you considered delivering evidence multiple times?

1. Whitty, C.J., 2015. What makes an academic paper useful for health policy? BMC Medicine, 13(1), p.1-5.

2. Whitty, C.J., 2015. What makes an academic paper useful for health policy? BMC Medicine, 13(1), p.1-5.

3. Sources: Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21); Phoenix, J.

H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98); Breckon, J. and Dodson, J. (2016) 'Using evidence: What works? A discussion paper,' Alliance for Useful Evidence.

4. Sources: Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21); Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98).

5. Sources: Oliver, K. and Cairney, P. (2019) 'The dos and don'ts of influencing policy: a systematic review of advice to academics,' Palgrave Communications, 5(21); Phoenix, J. H., Atkinson, L. G. and Baker, H. (2019) 'Creating and communicating social research for policymakers in government,' Palgrave Communications, 5(98).

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Appendix A: Project Scope and Methods

The objective of the project was to understand how evidence on what works to shift people towards healthy sustainable diets can be better translated for, and adopted by, food policymakers and practitioners. The remit of the project was to focus on the retail-consumption end of the food chain, including retail, catering and eating, while acknowledging that the earlier activities in the chain - in particular, manufacturing, but also farming - influence diets, and have a role to play in achieving a healthy sustainable diet shift. The research for the project was conducted between August 2021 and January 2022. Appendix C addresses definitions of a healthy sustainable diet. For this project, a healthy sustainable diet is understood as a pattern of consumption behaviour that prioritises both human (social, cultural and nutritional safety, sufficiency and adequacy) and planetary (considering planetary boundaries) health (footnote 1).

The Guiding Principles were developed by a team of researchers from the University of York and University of Hertfordshire, through a co-creative process with evidence generators, policymakers and practitioners. The Guiding Principles are based on a rapid review of literature on evidence-use and primary research. The literature review addressed how the evidence process works, who is involved, the needs of different evidence users, including policymakers and practitioners, and the barriers to and enablers of evidence-use. The primary qualitative research was used to understand the specific needs of policymakers and practitioners in the field of diet shift. This included elite interviews, workshops, follow-up interviews and feedback sessions, with 30 food policymakers and industry, public and third sector practitioners across England. The conceptual framework and outputs of the project were also reviewed by an expert from the What Works Network. The primary research findings were synthesised with the findings from the literature, to produce a set of Guiding Principles tailored to diet shift evidence. Feedback discussions with primary research participants, and other reviews, were used to test the guide.

Further details on the project, including its conceptual framework and methods, are detailed in the Optimising Evidence Technical Report.

1. Willet, W. and Rockstrom, J. et al. (2019) Summary report of the EAT-Lancet Commission: Healthy diets from sustainable food systems -- food, planet, health.

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Appendix B: The Evidence Use Process

What is evidence-use process?

The Guiding Principles are broadly organised according to three different stages of the evidence-use process:

- Generation: the creation of evidence (which might be primary research studies or secondary generation through review and synthesis)
- Translation: the interpretation, communication and dissemination of evidence to evidence users
- Adoption and implementation: the integration of evidence into policy or practice, and its conversion into deliverable actions.

Evidence generators are able to directly influence the first and second stages of the evidence use process. For the first stage, generators have the capacity to decide the content, methods and types of evidence created. For the second stage, generators also make translation decisions in terms of how that evidence is initially communicated and disseminated. Others also play a role in communication and dissemination, as discussed throughout the document. Most evidence generators can influence the adoption and implementation of evidence only indirectly, because there are many other influences on adoption and implementation into policy and practice than simply the provision of evidence (these too are examined throughout the report). Figure 3 provides an ideal-type illustration of the evidence use process. In reality though, the process may be less linear, and more iterative, and involve partnership development throughout, blurring the boundaries between the stages.

Figure 2: The evidence use process

Source: Authors

Figure 2: The evidence use process (accessible version)

1. Evidence generation: identify gaps and create evidence
2. Evidence translation: message crafting and communication
3. Evidence dissemination
4. Evidence adoption
5. Evidence implementation
6. Review and evaluate

Who is involved in the evidence-use process?

Table 3 provides a quick reference on the different actors in the evidence-use process, and examples in the field of diet shift.

Table 3: Who is involved in the diet shift evidence use process

Evidence use process stage	General actor groups/actors	Diet shift actor examples
Generation (creation)	Academic researchers (based at university or government-funded research institution) and researchers working in other organisations (such as think tanks)	Food Academic Researchers, Government Departments and Agencies in-house research (such as DEFRA and FSA) and Other Food Researchers
Generation	Commercial practitioners, third sector practitioners	Food Industry Food NGOs and Non-profits Local Food Hubs Policy Think Tanks
Generation	Research Commissioners	Government Departments and Agencies such as Department for Environment Food & Rural Affairs (DEFRA), Food Standards Agency, etc. Research Funding Bodies, such as the UKRI Transforming UK Food Systems Programme, European Commission

Evidence use process stage	General actor groups/actors	Diet shift actor examples
Translation (interpretation, communication and dissemination)	Evidence Generators	Academic Researchers and other researchers
Translation	Intermediaries and evidence brokers, such as consultants, professional or industry trade associations, network operators	Food Industry Trade Associations Professional bodies, for example: BDA, IFST Public Health Networks Local Food Hubs Sustain: the alliance for better food and farming
Translation	Research Commissioners	Government Departments and Agencies (for example, DEFRA, FSA)
Adoption	Policymakers (elected officials, civil servants)	National Government departments and Regulatory Agencies (for example, DEFRA, FSA, OHID) Local Authorities (health, planning, etc) Public Sector Food Purchasers (including schools, prisons, armed forces, procurement managers, etc.)
Adoption	Commercial Practitioner Decision-makers, such as business owners, upper management, corporate bodies, etc. (with decision-making power over adoption)	Food Businesses (including manufacturers, retailers, cafes and restaurants) Public Food Provision Bodies (including prisons, armed forces, schools)
Implementation	Practitioners working on-the-ground (interacting with the public)	Health Practitioners (Dieticians/Nutritionists, GPs; Health Visitors) Commercial Staff (food retail staff, stallholders, chefs etc) Local Authority Officials (such as Environmental Health, Public Health, Trading Standards)
Implementation	Managers	Food Businesses (Including SMEs, food suppliers, procurement managers, catering, store sustainability / nutrition teams) Public Food Provision Bodies (including prisons, armed forces, schools)
Implementation	Third sector practitioners	Food Campaign Organisations (for example: WWF, Sustain) Sustainable Food Places Network Local Food Hubs Food Banks Community Kitchens
Implementation	Contracted/Commissioned Bodies	Local Charities Food Banks Local Food Hubs Local Authorities Public Food Provision Bodies (including prisons, armed forces, schools)

Source: Authors

The reality: blurred evidence roles

Distinguishing between the stages of the process, and the different types of actors in each stage, can aid understanding of the evidence-use process, but in reality the divisions between stages and actor roles are blurred. Evidence is generated not only by academics and other research organisations, but also by governments, think tanks, trade associations and third sector organisations. Public policy is made by governments, but businesses are also ‘policymakers’ - they set internal corporate and industry/sector policies, and introduce expected (best) practice and standards as well as demanding interventions (such as certification; labelling; voluntary commitments on reformulation, advertising etc) for themselves and their suppliers.

Figure 3 illustrates the blurred and sometimes overlapping nature of the roles diet shift stakeholders may have in the evidence-use process, which is the reason that one of the Guiding Principles is to identify the policymakers and practitioners your evidence is relevant to without making assumptions.

Figure 3: The blurred roles diet shift stakeholders may have in the evidence use process

Source: Authors

Figure 3: The blurred roles diet shift stakeholders may have in the evidence use process (accessible version)

- **Policymakers, corporate practitioners, government bodies, non-governmental organisations (NGOs):** generators, translators and end-users
- **Professional researchers, academics and think tanks:** generators and translators
- **Local businesses:** end-users
- **Practitioners groups (health, education and business):** translators and end-users

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Appendix C: What is a healthy and sustainable diet?

Many researchers have published influential reports on the topic, most notably the EAT-Lancet Commission Report (2019), but these reports tend to provide guidelines or strategies for achieving "both planetary and dietary health." These reports, thus, provide a direction for sustainable diet shift, but users report being unclear and confused by the evidence on what a healthy and sustainable diet is. Based on the literature, the individual components of 'diet-shift', 'healthy' and 'sustainable' are described below, then synthesised to create a definition of healthy sustainable diets which will be used throughout this project.

Diet-shift

Diet shift is understood as the broad goal of shifting, or influencing, consumption choice and behaviour toward healthy and sustainable diets, in line with the Sustainable Development Goals and recent goals of the UN Food Systems Summit 2021. This is one goal of the broader transforming food systems agenda within a large, complex food system that is multifaceted, complex and crosses disciplinary, geographical and sector boundaries.

Healthy diets

'Healthy' is a general descriptive term that encompasses nutritional health and variety, food safety and quality standards recommended/set out by the UK government and the National Health Service (NHS). The Eat-Lancet Commission Report describes healthy as "a state of complete physical, mental and social well-being and not merely the absence of disease." It should be noted that it is a 'state of being' rather than a single goal, meaning that health changes over time and varies considerably between individuals. Health also expands beyond the physical to include aspects of mental and social well-being, which in the context of food relates to socio-cultural and individual dietary preferences and needs – for example, access to traditional and cultural food as well as safe and nutritionally adequate food.

Sustainable diets

In general, the literature shares the view that a sustainable diet should be "rich in plant-based foods and with fewer animal-source" and processed, high salt, sugar, fat (HSSF) foods (footnote 1) . Other guidelines, such as the EAT-Lancet Commission Report, the EU Farm to Fork Strategy and the VALUMICS Food System Dynamics Report, do provide "various attributes" for a sustainable diet, including:

- "a more plant-based diet with less red and processed meat and with more fruits and vegetables"
- a diet that "reduces food loss and waste"
- a diet based on "traditional and locally-accepted varieties" and organically sourced food
- a diet that "reduces the use of packaging, especially single use food packaging" (footnote 2)

Broadly speaking, the EAT-Lancet Commission Report asserts that sustainable diets should adhere to planetary boundaries including greenhouse gas emissions, cropland use, fresh water use, nitrogen cycling, phosphorus cycling and biodiversity loss (see Figure 4 below). The strategies listed above help meet these boundaries, although most literature agrees that drastic and immediate action is needed to avoid crossing the boundaries.

Figure 4 EAT Lancet (2019) table on planetary boundaries

Source: Eat Lancet Commission Summary Report 2019, page 15.

Figure 4 EAT Lancet (2019) table on planetary boundaries (accessible version)

Earth System process	Control variable	Boundary (uncertainty range)
Climate change	GHG emissions	5 Gt CO2 -eq yr-1 (4.7 - 5.4 Gt CO2-eq yr-1)
Land-system change	Cropland use	13m km2 (11-15m km2)
Freshwater use	Water use	2,500 km3 yr-1 (1000-4000 km3 yr-1)
Nitrogen cycling	N application	90 Tg N yr-1 (65-90 Tg N yr-1)* (90-130 Tg N yr-1)**
Phosphorus cycling	P application	8 Tg P yr-1 (6-12 Tg P yr-1)* (8-16 Tg P yr-1)**
Biodiversity loss	Extinction rate	10 E/MSY (1-80 E/MSY)

*Lower boundary range if improved production practices and redistribution are not adopted.

**Upper boundary range if improved production practices and redistribution are adopted and 50% of applied phosphorus is recycled.

Healthy and sustainable diets definition

Based on the available literature described above, healthy and sustainable diets can be understood to mean a pattern of consumption behaviour that prioritises both human (social, cultural and nutritional safety, sufficiency and adequacy) and planetary (considering planetary boundaries) health. This definition includes considerations beyond just the physical and also social, cultural and mental well-being.

1. Sources: Willet, W. and Rockstrom, J. et al. (2019) Summary report of the EAT-Lancet Commission: Healthy diets from sustainable food systems -- food, planet, health; Xhelili, A.

and Nicolau, M. (2021). 'From intention to action: Multi-stakeholder recommendations for making sustainable food consumption a reality'. [Research report] Valumics. Wuppertal.

2. Xhelili, A. and Nicolau, M. (2021). 'From intention to action: Multi-stakeholder recommendations for making sustainable food consumption a reality'. [Research report] Valumics. Wuppertal.

Appendix D: Diet Change Actors to Consider When Identifying Evidence User Targets

The literature on food systems identifies a range of activities and stakeholders, with no agreed or universal list (footnote 1). More specifically to diet shift, literature defining food environments (where diet choices take place), details a range of relevant settings and influential actors, again with no agreed list. Herforth and Ahmed's (2015) framework on nutrition and physical activity decisions defines the environmental settings as consisting of: homes; schools; workplaces; recreational facilities; food service and retail establishments and other community settings; and sectors of influence being: government; public health and healthcare systems; agriculture; marketing and media; community design and safety; foundations and funders; and industry (food, beverage, physical activity and entertainment). Other frameworks are more granular, listing settings including: food banks; markets (farmers; street); meal kit deliverers; cafeterias; vending machines and concession stands; checkout stands at non-food retailers; and specifying actors including store managers, owners, suppliers, distributors, wholesalers, and sales representatives (footnote 2).

Based on this literature, and drawing on the authors' own knowledge of food systems, Table 1 presents a list of food actor groups relevant to diet shift. Following the scope of this project specified by its commissioners, Table 1 does not include:

- the home as a sub-domain of the food environment, as evidence use by the public/citizens is outside of the scope of the 'Optimising evidence for diet shift' project.
- activities and actors in the food system prior to retail/catering (including agriculture, trade, distribution, processing and manufacturing)

Table 4: Diet Change Actors to consider when identifying evidence user targets

Diet Change Actor Group	Sub-group	Actors
Policymakers (Public Policy)	National	Policymakers (Elected Officials; Civil Servants) working on: • Health/Safety/Standards • Environment • Trade • Agriculture • Education • Industry • Welfare

Diet Change Actor Group	Sub-group	Actors
Policymakers (Public Policy)	Local (Local Government Departments, Service Commissioners, Local Food Partnerships formally linked into local government	Policymakers (Elected Officials; Civil Servants) working on: • Public Health • Environment • Planning • Business/Economic • Education • Welfare
Professional Practitioners (Public Sector)	Health Professionals	• GPs • Nutritionists/Dieticians • Early years including, health visitors • Professional Bodies • British Medical Association • British Dietetics Association (One Blue Dot) • Institute of Health Visiting • Royal Society Public Health
Professional Practitioners (Public Sector)	Public Sector Food Procurement (schools, hospitals, prisons, public0sector owned recreational facilities, government estate), Professionals	• Procurement managers • Catering staff Professional bodies: • Food for Life (for example, may conduct audits)
Professional Practitioners (Public Sector)	Education on diet - Practitioners (early years care including Nurseries Children's Centres)	• Teachers • Nursery staff Professional Bodies: • OFSTED • Nursery equivalent
Professional Practitioners (Public Sector)	Third Sector (Food Charities Community Groups, Local Food Partnership)	• Charity/community project/Local Food Partnership managers • Charity/community delivery staff (including volunteers) • Food banks • Community provision/cooking schemes
Commercial Practitioners (Private Sector Food Businesses)	-	• Retailers (Including chain stores; independent stores; online retail; markets (incl. street markets and farmers markets); short supply chain initiatives incl. box schemes; community supported agriculture schemes); vending and concessions; checkouts at non-food retailers) • Caterers (incl. contract caterers; restaurants; cafes; meal delivery companies) • Restaurants • Marketing and Media companies (incl. media organisations; advertising companies; sponsors (incl. of media; sports activities). **Food Industry Bodies (Selected Examples)** • British Retail Consortium • Association of Convenience Stores • Food & Drink Federation • UK Hospitality • Sustainable Restaurant Association • Nationwide Caterers Association • Lists of other bodies; Health and Safety Executive ; Food and Beverage Training company

Read more:

Shifting toward healthy and sustainable diets: How to optimise evidence use for policy and practice technical report

Promoting healthy and sustainable diets: How to effectively generate and translate evidence landing page

1. See for example: Hasnain, S., Ingram, J. and Zurek, M. 2020. Mapping the UK Food System – a report for the UKRI Transforming UK Food Systems Programme. Environmental Change Institute, University of Oxford, Oxford; Committee on a Framework for Assessing the Health, Environmental, and Social Effects of the Food System, et al. (2015) A Framework for Assessing the Effects of the Food System. National Academies Press (US) June 17; Parsons, K. and Barling, D. (2021) Food Systems Transformation - What's in the Policy Toolbox?. A Report for the UKRI Transforming UK Food Systems Programme; Parsons, K., (2020) Who Makes Food Policy in England? A Map of Government Actors and Activities.; Parsons K, Barling D, Lang T. (2018) UK Policymaking Institutions and their Implications for Integrated Food Policy. Advances in Food Security and Sustainability. Nov 12, 3(211), p.233.

2. Winkler, M.R., Zenk, S.N., Baquero, B., Steeves, E.A., Fleischhacker, S.E., Gittelsohn, J., Leone, L.A. and Racine, E.F., (2020). A model depicting the retail food environment and customer interactions: Components, outcomes, and future directions. International journal of environmental research and public health, 17(20), p.7591