Nudging Diet Change for Health and Sustainability

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Key messages

- For the global population to eat more healthily and sustainably, we must change our diets, for example by consuming less ruminant meat.
- 'Nudges' are a promising starting point for large-scale change, as they are evidenced to be effective, can be rapid and cost-effective to implement, and do not reduce choice.
- We recommend a broad range of strategies under three themes:
  - Making it *easy* involves creating an 'enabling environment,' such as making sustainable and healthy options the default, and increasing availability.
  - Making it *appealing* can be achieved by changing the framing of existing products, as well as by developing new products.
  - Making it *normal* harnesses our social identity and tendency to adopt the behavior of 'people like us.'

Our food system is driving widespread health problems, and is unsustainable. While millions suffer from undernutrition and millions more from obesity, collectively we are consuming the Earth's resources faster than they can replenish themselves. Given the growing population, and growing per capita consumption of processed, fatty and meat-centric diets, both the global health challenges and environmental threats look set to get worse.

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However, several recent studies show that it is possible to flourish on a diet that is both healthier and more environmentally sustainable.[1,2] Encouragingly, worldwide adoption of a healthy diet would generate over a quarter of the emission reductions needed across all sectors by 2050.[3] The changes needed are complex, as the specific nutrition issues and the environmental impacts of consumption and production vary by region. But significant improvements can be achieved with some simple substitutions, such as eating less red meat and more legumes, whole grains, vegetables and nuts.[3] Indeed, reduced red meat consumption would contribute to at least nine of the 17 UN Sustainable Development Goals.[4,5]

How, then, can we achieve such change? Behavioral science must play an important role here. After all, our diets are deeply habitual, strongly influenced by automatic decision-making,[6] and rooted in culture and identity. We must also navigate the complexities of public consent, together with incumbent interests, subsidies and policies tending to favor the status quo,[7] and political rhetoric framing diet choice as a matter of deep personal sovereignty and long-standing tradition, and therefore something that is too precious to meddle with.[8]

> "Food companies in the UK spend 27.5 times more on promoting junk food than the British government spends on its flagship healthy eating campaigns"

An appetite for change

A brief look at human history shows that this latter point is not well founded. Our diets have always been in flux, and have often been deliberately influenced. Foods initially regarded with suspicion soon become staples, such as the 'devil's apple' introduced to Europe in the 16th century – now commonly known as the potato. Its success was in part due to concerted promotion by the government,[9] and indeed government intervention in our diets continues to this day, most obviously for public health: 'traffic light' calorie labels, taxes, and bans on the advertising or sale of junk food near schools are just a few examples.[10–12] Industry influence is even more powerful (and not always in the public interest): for example, food companies in the UK spend

Healthy and sustainable food choices must be made easy, and the 'choice architecture' is key

27.5 times more on promoting junk food than the British government spends on its flagship healthy eating campaigns.[13] We therefore should not underestimate the extent to which dietary change is possible, and indeed likely, over the next few decades. However, to start this journey we must operate within the realms of public and political acceptability. Though the biggest wins may ultimately come from the boldest policies, such as carbon taxes to incentivize industry reformulation and innovation, such policies may be some way away. We need to start small, and start immediately. We think a good first step is to nudge.

Nudges, by definition, offer policymakers, restaurant managers, retailers and others the tools to softly influence behavior without diminishing freedom of choice.[14] They are often rooted in small changes to our environment, or to the framing of options, that are designed to leverage our sensitivity to these cues and sway us towards certain outcomes. For example, putting healthier food near supermarket checkouts, or at eye height, can encourage healthier purchases without reducing product choice.[15] These techniques will not be enough on their own, and we need to be cautious that their use does not undermine appetite for bolder policymaking,[16] but they may be the perfect starting point, and they have the potential to trigger a virtuous circle: a minority of consumers eating more healthily and sustainably can drive producers and retailers to improve and increase their offerings, which further normalizes these choices and further shifts the 'choice environment' towards more healthy and sustainable food.

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So what would these nudges look like? In short, we need to make healthy and sustainable food consumption *easy, appealing* and *normal*.[17] Let us consider each of these requirements in turn.

Making it easy

A key insight that emerges throughout the behavioral sciences is that it is often more effective to change the environment or context within which a behavior emerges than it is to change people's minds. Values and knowledge are rarely enough: for example, even when individuals care about the environment, they only tend to act on those concerns when it is easy to do so.[18] Indeed, most people want to eat more healthily and more sustainably, but do not.[19] This is because much of our behavior is automatic, bounded by limited willpower and knowledge, and driven by nonreflective cognitive processes in response to contextual cues.[20] A wealth of evidence shows that eating behaviors

in particular are more likely to be shifted by changes in context than in attitudes.[21,22]

And so we must adopt strategies that create an 'enabling environment' for nutritious and sustainable diets, removing all practical and psychological barriers. For example, we often stick with the default, preset option,[13] so why not make healthy and sustainable food the default at catered events or on flights? Similarly, people are more likely to choose options that are more available:[23] consider simply increasing the proportion of options that are healthy and sustainable (say, from 1 in 4 options in a canteen to 2 in 4). Other modifications to the 'choice architecture,' such as putting the healthy and sustainable options first, also have a modest impact.[22]

It is also the case that behavior change is much easier, and thus more likely, if prompted at certain times. One of these key moments is simply the time of purchase: labels and prompts are more effective when delivered at this decision point compared with wider education or awareness-raising efforts.[24] So one simple strategy would be to prompt shoppers to consider a substitute at the point of checkout during an online grocery shop. Other key moments for intervention are occasions when habits are disrupted or yet to be set. Just as we are more likely to start cycling to work when we move house (Behavioural Insights Team trial)[25], we might be more likely to learn a new recipe when we have bought a new kitchen, or more open to new food habits when we have just started university and are learning to cook and shop for the first time.

Making it appealing

Although many people are aware of the nutrition quality of their food, and awareness of the environmental impact of food is increasing, we generally do not prioritize these concerns when choosing our food. In the USA and Europe, the most common considerations are taste and enjoyment, cost, convenience, freshness and quality, and health, roughly in that order.[26,27]

In other words, we should not be naïve in expecting consumers to sacrifice their enjoyment, their convenience or their wallets in order to consume healthily and sustainably. We need to harness other motivations wherever we can, and this means we need genuinely appealing options that happen to be good for us and the planet. Partly, this involves promoting the development of new products and reformulating existing favorites. For example, soft drinks manufacturers reformulated their products with reduced sugar content in response to the UK sugar tax;[11] a producer-facing carbon tax could drive analogous changes in other products. However, we can also achieve a lot simply by reframing and remarketing existing options. For instance, the language used to describe healthy and sustainable food is often uninspiring. Indeed, people perceive food labeled 'healthy' to be less tasty and less filling, and among meat eaters, the term 'vegetarian' has strong associations of 'not for me,' and of being light and unsatisfying.[28,29] In studies that we ran with the World Resources Institute, we found that changing product names – using labels such as 'field-grown' instead of 'meat-free,' or highlighting the provenance and flavor of a meal – increased ordering rates among meat eaters as much as twofold.[30]

Plant-based food must be appealing

> "We need genuinely appealing options that happen to be good for us and the planet"

Making it normal

Humans are deeply social creatures: we define ourselves by our membership of social groups, and we conform to group norms.[31] Interventions communicating the desirable social norm are one of the most well-evidenced approaches in the applied behavioral sciences. For example, at the Behavioural Insights Team, we reduced the overprescribing of antibiotics in the UK simply by telling doctors that they were prescribing more antibiotics than other doctors in their area.[32] This principle yields similar results in diet choices, even when the behavior we want to promote is not yet the majority behavior, by communicating the desirable trend ('dynamic norm') – that is, "more and more people are adopting nutritious and sustainable diets."[33]

The downside of social influence is that we tend to distance ourselves from 'others' with whom we do not identify, and this is a barrier to widespread dietary change. For example, in many cultures, vegetarian food has a strong and coherent niche identity – partly one of abstemiousness, weakness and femininity[34] – against a backdrop of 'normal' meat eaters. A 'masculinity makeover' within the vegetarian food industry may therefore be

necessary, but we can also make simple changes to shop layouts and restaurant menus to help address this sense of 'otherness.' Although segregating vegetarian options into their own shop aisles or menu sections is common practice, it is in fact not helping: it reduces the likelihood of these offerings being chosen by a meat eater, whereas integrating the options helps a wider range of people choose plant-based food.[35,36] This principle of integration could similarly be applied to other types of food, for example by providing healthier alternatives alongside their traditional counterparts.

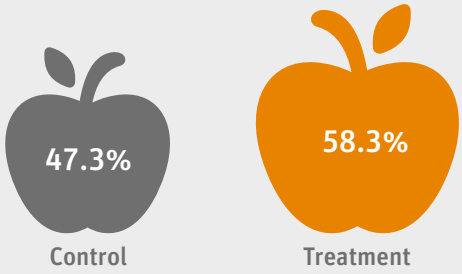
> "Nudges can be applied almost anywhere people choose food"

Putting it into practice

These nudges can be applied almost anywhere people choose food, from shopping in a supermarket (in-store or online) to ordering meals when booking a flight. And they can be implemented by almost anyone, at any scale, from a global restaurant chain to a school cafeteria. We recently hosted the annual Behavioural Exchange conference, and could not resist the opportunity to run a trial ourselves. We developed two versions of the menu and sent these to delegates before the conference, asking them to preselect their food preferences. A random half received the 'control' menu, which reflected common practice: terms like 'meat-free' were used for the vegetarian options, which were in a separate labeled section, and slightly more decadent phrasing for the meat options, which were listed first. The 'treatment' menu had exactly the same options, but listed the vegetarian choices first (making them *easy*), described them more decadently compared with the meat options (making them *appealing*) and integrated them into a single list with the meat dishes (making them *normal*). Despite no difference in the range of options available, no attempt to mislead and no restrictions on freedom of choice … well, judge the results for yourself (**Figure 1**).

We are social creatures, and social norms, peer influence and culture play a big role in our dietary choices

FIGURE 1: There was a 23% increase in the percentage of vegetarian options chosen when they were framed as more appealing and integrated into the menu. With each person making 8 choices, the treatment resulted in an extra 168 vegetarian dishes being selected.



We expand on the themes of this article in a long-form report entitled 'A menu for change: using behavioral insights to promote sustainable diets around the world,' which can be downloaded from **www.bi.team/publications/a-menu-for-change/**.

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