

NESTA - WRITTEN EVIDENCE (FDO0036)

Nesta Submission to the House of Lords Inquiry into Food, Diet & Obesity - 1 page summary

Context

Nesta is the UK's innovation agency for social good. We design, test and scale new solutions to society's biggest problems. One of Nesta's three Missions is to increase the average number of healthy years lived in the UK, while narrowing health inequalities. In order to do this, we have chosen to focus on obesity, because it is one of the most common causes of preventable death and ill health. This document is Nesta's response to the Call for Evidence put out by the Committee on the 19th of February.

Response summary

- Poor diets are making our lives shorter and less healthy. There are many health impacts of a poor diet, including high blood pressure, high blood sugar, high cholesterol and obesity - each of these risk factors [represent the top causes of death](#) in the UK after smoking. Poor diet is linked to around [64,000 deaths in England each year](#).
- Rates of obesity and overweight [have doubled since 1991](#). [Most recent estimates](#) are that 26% of all adults in England are obese, and a further 38% are overweight.
- The high prevalence of obesity is reflected in [rates of obesity-related disease](#). In 2019/2020, there were over 1 million hospital admissions where obesity was a factor. This also represents a huge cost to the NHS - recent [analysis](#) has estimated that the cost of obesity is £74.3 billion per year, with overweight costing a further £24 billion per year.
- Over the past 30 years, the UK government has developed [14 strategies with 689 policy suggestions with the goal of combating obesity](#). During this period, the rates of overweight and obesity have doubled. The policies, which primarily rely on individual willpower, information dissemination, and exercise encouragement, have clearly fallen short. The crux of the issue lies not in people's motivation to shed weight— [evidence shows that 38% of UK adults are actively trying](#)—but rather in the formidable challenge of maintaining a healthy lifestyle in the face of an obesogenic food environment.

- Yet to halve obesity requires only small changes to diets. Nesta modelling shows that a person living with excess weight needs to reduce their calorie intake by only 8.5% or [216 calories per day](#). This is a relatively modest shift, yet we know that existing policies are not going to meet the scale of this challenge.
- **We propose the [introduction of health targets](#) that require large retailers to improve the healthiness of their offer by increasing the average nutrient profile model (NPM) score across their entire food product portfolios (branded and own brand).** This offers an effective mechanism where the Government sets the ambition while allowing businesses to retain flexibility in how they achieve this.
- Our analysis estimates that a converted NPM target for the 11 largest UK retailers at levels similar to the businesses with the healthiest product portfolios today could reduce calorie purchases among the excess weight population by ~80 kcal per person per day, and obesity prevalence by 23%.
- Nesta will publish the '[Blueprint for halving obesity](#)' later in 2024, a tool demonstrating the policies with the best chance of halving the prevalence of obesity in the UK.

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Context

Nesta is the UK's innovation agency for social good. We design, test and scale new solutions to society's biggest problems. One of Nesta's three Missions is to increase the average number of healthy years lived in the UK, while narrowing health inequalities. In order to do this, we have chosen to focus on obesity. We are not an obesity charity but we think there are huge potential gains to be won in tackling obesity given its contribution to lives lost and lived in ill health.

Recent publications from Nesta on obesity include '[Targeting the health of the nation](#)', a policy proposal to implement mandatory health targets for large grocery retailers, which could reduce obesity in Britain by approximately 23%.

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Response to the questions posed in the Call for Evidence

Section 1: Key trends in food, diet and obesity, and the primary drivers of obesity, including the evidential base for identifying these trends

- Across the country, diets fail to meet the UK government's recommended intake. The latest [national diet and nutrition survey](#) found that, for the average diet, intake of free sugars, saturated fats, and salt was higher than the government's recommendation. For example, free sugars represented 12.3% of total energy intake for children aged 11-18, against a recommendation of no more than 5%. Meanwhile average intake of fibres was below the recommendation for all age groups. There is [evidence](#) that under-reporting is a problem in the NDNS, and real consumption of unhealthy foods is likely to be higher. Nesta are undertaking work this year to analyse current UK diets, using an alternative dataset to the NDNS, to outline a more accurate understanding of current diets within the UK.
- Rates of obesity and overweight [have doubled since 1991](#). The [Health Survey for England](#) provides estimates of the rates of obesity and overweight in England. Most recent estimates are that 26% of all adults in England are obese, and a further 38% are overweight. Obesity prevalence varies significantly by population group - obesity prevalence is 20% in the least deprived areas and 34% in the most deprived areas.
- The drivers of obesity are complex, but changes in the food environment are critical. We expand on this below (Section 4). Nesta [modelling](#) has shown that small shifts in diets (reduction of just 216 calories per day for those with excess weight) across the population could halve obesity rates. This will require action across the sector to alter the food environment to make healthy choices easier.

Section 2: The impacts of obesity on health, including on children and adolescent health outcomes, and the influence of pre- and post-natal nutrition on the risk of subsequent obesity

- Poor diets are making our lives shorter and less healthy. There are many health impacts of a poor diet, including high blood pressure, high blood sugar, high cholesterol and obesity - each of these risk

factors represent the top causes of death in the UK after smoking. Poor diet is linked to around 64,000 deaths in England each year ([Global Burden of Disease](#) 2019).

What risk factors drive the most death and disability combined?

- Metabolic risks
- Environmental/occupational risks
- Behavioral risks

Risk	2009 rank	2019 rank	Change in DALYs per 100k, 2009–2019
Tobacco	1	1	↓ -410.9
High fasting plasma glucose	5	2	↑ +354.5
High body-mass index	2	3	↑ +159.6
Dietary risks	4	4	↓ -51.6
High blood pressure	3	5	↓ -165.6
Alcohol use	6	6	↓ -39.8
High LDL	7	7	↓ -144.5
Occupational risks	8	8	↓ -9.3
Non-optimal temperature	9	9	↓ -10.6
Drug use	11	10	↓ -24.4

Source: [Institute For Health Metrics And Evaluation chart](#) based on [Global Burden of Disease](#) 2019

- The high prevalence of obesity is reflected in rates of obesity-related disease. [In 2019/2020, nearly 11,00 hospital admissions in England were directly attributable to obesity, and there were over 1 million hospital admissions where obesity was a factor.](#) This also represents a huge cost to the NHS - recent [analysis](#) has estimated that the cost of obesity is £74.3 billion per year, with overweight costing a further £24 billion per year. Of this total £98 billion a year cost, around one-third of the cost falls on society through £19.2 billion of costs to the NHS and £15.6 billion of costs to wider society through productivity losses and costs to social care.
- There are also health impacts for children, particularly deprived children. For example, almost a quarter of 5-year-olds have dental decay, with 2.5 times as many children in the most deprived fifth showing decay than the least deprived fifth. (Oral health survey of 5 year old children 2022, OHID)
- Women with obesity have [double the risk of having a baby with increased birth weight](#) compared to women with a BMI between 20 and 30 due to higher adipose tissue (fat) compared to babies born

to non-obese women. High infant mass is associated with [increased risk of obesity in childhood](#).

- Maternal obesity is associated with later-life obesity for offspring, but causality is less clear. Findings from the Avon Longitudinal Study of Parents and Children in the UK suggest that [children are 3.3 times more likely to be obese at age 7 if their mother was obese in pregnancy](#), and 5.7 times more likely to be obese if both parents are obese in the pre-pregnancy period. However, despite attempts to eliminate confounding, [it is unclear whether increased risk of childhood obesity is due to an intrauterine influence](#), or simply reflects shared familial, genetic, or lifestyle characteristics. [There is emerging evidence to support the foetal conditioning of appetite, metabolism and activity in offspring](#), including in animal studies, but it is not yet sufficiently strong to explain increased obesity in children of obese mothers.

Section 3: The definition of a) ultra-processed food (UPF) and b) foods high in fat, sugar and salt (HFSS) and their usefulness as terminologies for describing and assessing such products. How consumers can recognise UPF and HFSS foods, including the role of labelling, packaging and advertising, the cost and availability of such foods and their impact on health outcomes.

- The Obesity Health Alliance refer to the misinformed sense of competition between the two approaches (UPF and HFSS/ Nutrient Profile Model) to define unhealthy food and drink in their submission to this call for evidence. Their submission sets out in more detail the definition and usefulness of these terminologies.
- At Nesta, we recognise the important and growing debate around the UPF classification and are keeping a watching brief on the topic as evidence and discussions develop. Our work will continue to focus on a definition of unhealthy as defined by the Nutrient Profile Model because:
 - It is not yet clear within the evidence whether the driver of harm from a UPF-heavy diet is above and beyond its nutritive components (i.e. calories, salt, saturated fats and sugars). It is our view that current causal evidence is not yet sufficient to advocate for a shift in policy focus to reductions in UPF consumption.

- The Nutrient Profile Model (NPM) categorisation covers the majority of NOVA-defined UPFs ([est.~75-80%](#)) and therefore is a sufficient measure of the healthfulness of food.
- Whilst the evidence base on UPFs continues to develop, we must continue to pursue ambitious policies that work to reshape our food system so that the healthier option is the easiest option for everyone, regardless of where you buy your food. Our [proposal for mandatory health targets for retailers](#) can make real progress towards these goals and start turning the tide on obesity once and for all.

Section 4: The role of the food and drink industry in driving food and diet trends and on the policymaking process

- Over the past 30 years, the UK government has developed 14 strategies with 689 policy suggestions with the goal of combating obesity. During this period, the rates of overweight and obesity have doubled. The policies, which primarily rely on individual willpower, information dissemination, and exercise encouragement, have clearly fallen short. The crux of the issue lies not in people's motivation to shed weight— [evidence shows that 38% of UK adults are actively trying](#)—but rather in the formidable challenge of maintaining a healthy lifestyle in the face of an obesogenic food environment.
- What surrounds us shapes us, and evidence shows that an increasingly complex set of factors drives trends in population diets and food consumption. Evidence suggests that the strongest [drivers of these trends are cost, availability & convenience and marketing](#). The food and drink industry, including the retail, manufacturer and out-of-home sectors, plays a key role in orchestrating these drivers, shaping consumer choice through the formulation of food, the availability of healthier products, their placement in stores and the marketing to which they are subject including promotions and advertising. Recent evidence suggests that in 2022, the [total spend on online advertising for food and drink products from four food categories that are associated with children's excess sugar and calorie intake by UK food manufacturers was £55 million](#).
- Yet to halve obesity requires only small changes to diets. Nesta modelling shows that a person living with excess weight needs to reduce their calorie intake by only 8.5% or [216 calories per day](#).

This is a relatively modest shift, yet we know that existing policies are not going to meet the scale of this challenge.

- We need more ambitious policies that target improvements in the food environment rather than relying on individual behaviour change. These policies should require supermarkets, restaurants and manufacturers to take steps to increase the flow of healthier options and to stop pushing unhealthy choices to our populations.
- Polling shows that the British public is concerned about obesity and supportive of stronger government action. In a recent [YouGov poll](#) commissioned by the Obesity Health Alliance, 68% of respondents felt that the government should be doing more to make sure healthy food is readily available. The public also recognises a role for industry, with 77% feeling that the [food and drink sector has a responsibility](#) to ensure people stay healthy.

Section 5: Lessons learned from international policy and practice, and from the devolved administrations, on diet-related obesity prevention

- Nesta has produced [research exploring innovative food environment policies](#) throughout the world. This work aimed to set out exciting examples of novel policies, not produce an exhaustive list of innovative policies, or specifically recommend their introduction in the UK context.
- We looked into ten case studies of innovative international examples in more detail. The full case studies can be found [here](#). Five particularly powerful case studies, which may have relevance for the UK context, include:
 - **Integrated Strategy for Promoting Healthy Eating, Portugal** - A comprehensive strategy for factoring nutritional and health considerations into all policies across Portuguese government departments. Cross-government, mission-driven policy-making enables the use of a full range of policy tools to tackle an issue and is essential for influencing the range of things that make up our food environments. This case study highlights the importance of managing the metrics of success carefully to create incentives to see policies through to the point of impact.
 - **Nordic health 5/5 aspiration, Nordic region** - A proposed multi-national target for rebalancing the split of public health spending between so-called 'sick-care' and preventative healthcare to be 50/50, each representing 5% of GDP

compared to the region's current spend of 9.7% and 0.3% respectively. While only proposed, this is an exciting example of a push for long-termism in health policy, and it would be interesting to understand how a bigger picture, radical commitment such as this could motivate lower-level policy action in the UK. Political and practical hurdles would be high, as a shift away from prioritising sick-care could lead to negative impacts in the short term before any longer-term benefits from extra preventative spend could be realised.

- **The New Recipe for School Meals programme, Sweden.** Although not directly about tackling obesity (instead focused on greening school food systems), this pilot policy prioritises wide stakeholder participation to design innovative approaches to improving school food environments within a wider mission. The UK could trial the systems thinking conducted for this pilot in a UK context, or take the participatory concept even further to consider future generations' voices too.
- **Banning 'abusive publicity' to children, Brazil.** Regulations designating certain child- and teenager-targeted marketing techniques as 'abusive', using strong language to confer responsibility for the impacts of consuming marketed products upon companies using these practices. The designation of certain child marketing practices as 'abusive' has a particularly interesting tenor in the food world, redolent of some regulators' consideration of unhealthy food as 'long-term poisoning'. Strong policy language is eye-catching and the designation of certain marketing practices as 'abusive' goes some way to conferring responsibility on the food industry for negative outcomes relating to consumption of their products. As a policy, this would need stronger enforcement mechanisms to positively impact food environments in practice.
- **The Nordic food marketing monitoring protocol, Nordic region,** a multi-national series of guidelines for Nordic countries to improve and standardise data collection regarding food marketing practices including digital marketing. This protocol is an example of multilateral cooperation to better monitor the influence of modern food marketing and ensure that monitoring methods can be regularly updated to keep up with developing practices. The UK could align with this, or go

further and consider how automation could help with monitoring and related policy. The careful management of food industry input into the development to prevent misaligned interests influencing the guidelines is also instructive.

Section 6: The effectiveness of Government planning and policymaking processes in relation to food and drink policy and tackling obesity, including the impact of recent policy tools and legislative measures intended to prevent obesity.

- Historically, efforts to tackle obesity have been piecemeal, with small or low-impact policies. And the misconception that obesity is an issue of individual willpower has led policymakers to back less effective approaches to tackling it. But evidence shows that weight loss is only likely to happen in a sustained way if our food environments change. The government should focus on implementing policies that encourage the food and drink sector to improve its practices, making the places where we shop and the foods we buy healthier for the consumer.
- In this world, consumers would enter a supermarket, whether in-store or online, and be met with a shopping experience designed to result in healthier choices. [The changes do not need to be large.](#) Tweaks to existing stocking, advertising, marketing, reformulation and store design practices would be enough to achieve a sustained reduction in calorie consumption.
- Indeed, [evidence shows](#) that over the past 30 years, the UK Government has published 14 obesity strategies containing 689 policies, the majority of which relied on individual behaviour change, or voluntary action from industry, rather than improvements to the broader food environment. Of the policies that have attempted to improve industry practice, many have been voluntary in nature. For example:
 - The 2011 [Public Health Responsibility Deal](#) where industry partners voluntarily pledged to work to improve health across the areas of alcohol, food, physical activity, health at work and behaviour change. The impact of this voluntary system is likely to have been low and evaluations (e.g. on [alcohol consumption](#), [diets](#) and [more broadly](#)) suggest the deal did not meet its objectives.
 - [Salt, sugar and calorie reduction and reformulation](#) targets. Since 2006 the UK Government has published and reported

against a series of voluntary targets for industry. Overall progress against all these targets has been limited.

- The salt targets have achieved a reduction of approximately 1.1g salt per day over a 13 year period ([9.5g in 2006](#) to [8.4g in 2020](#)) with no significant changes seen over the last decade.
 - Since 2016, average sugar content across the categories targeted has only [reduced by around 3.5%](#) (equivalent to around four kcal per person per day²) compared to the programme's ambition of 20%.
 - A recent [progress report](#) for calorie reduction targets shows limited progress has been achieved in calorie content across any of the in-scope product categories.
- These voluntary approaches have failed to generate significant industry action or associated public health impact because they lacked a strong incentive for industry-wide compliance. Given the highly competitive nature of the food industry, it is hard for even the most progressive businesses to be incentivised to take ambitious action if their competitors are not due to the commercial risk. To achieve system-wide impact we need to design policies that target all major businesses across the retail, manufacturing and out-of-home sectors.
 - We think our mandatory targets policy provides the best approach to incentivise action from all large businesses across food industry sectors while allowing the industry the flexibility to decide how they reach those goals. This approach would help to create parity across the sector, where the businesses which have already taken the most action to improve their offer to the consumer are recognised, and those that are lagging are incentivised to catch up.

Section 7: Future policy tools that could prove effective in preventing obesity.

- Our headline system-shaping policy proposal has focussed on [healthiness targets for large retailers](#). We think these targets should include all food sales across a business (including branded and own-brand products), rather than focussing on ingredients or categories (e.g. sugar) as with the existing Government reformulation programme. These should be designed to deliver impacts on obesity that are proportionate to the scale of the challenge. To do this, they need to encourage both reformulation and a sales shift towards healthier options.
- Our work looked at a range of options for retailer targets, with a focus on assessing the best measures for healthiness and most

effective implementation options. To do this, we have analysed a food purchasing dataset from a representative sample of ~30,000 GB households and carried out modelling of the potential impact of targets on calorie purchasing and population obesity rates.

Alongside this, we engaged with experts across the system to assess the feasibility of different target options.

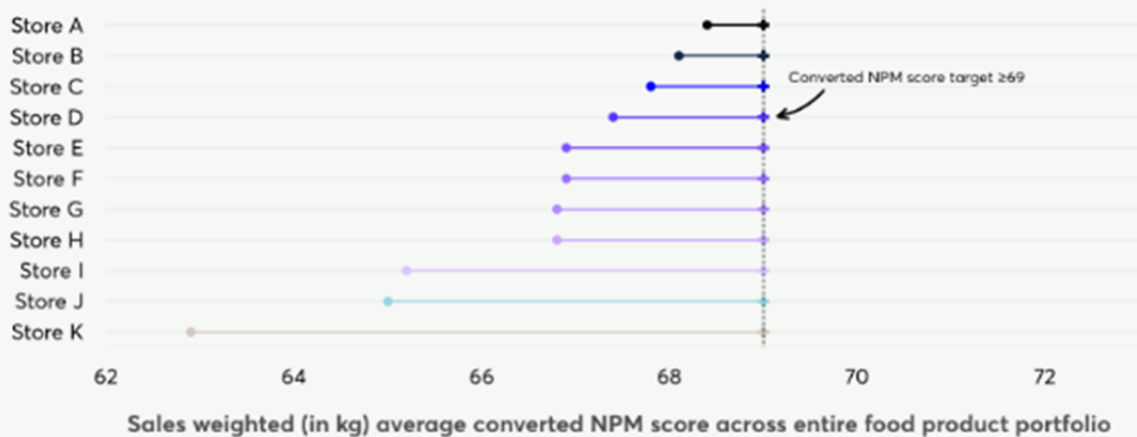
- **We propose the introduction of health targets that require large retailers to improve the healthiness of their offer by increasing the average nutrient profile model (NPM) score across their entire food product portfolios (branded and own brand).** This offers an effective mechanism where the Government sets the ambition while allowing businesses to retain flexibility in how they achieve this.
- Our analysis estimates that a converted NPM target for the 11 largest UK retailers at levels similar to the businesses with the healthiest product portfolios today could reduce calorie purchases among the excess weight population by ~80 kcal per person per day, and obesity prevalence by 23%.
- To achieve this reduction, our modelling suggests that you would need to set the following target: **retailers must increase their sales-weighted average converted NPM score to ≥ 69 NPM score** (from the current average of 67) across their entire food product portfolio by 2030. Below is a chart to demonstrate the targets and where retailers are currently performing.
- To ensure industry targets achieve their intended impact, targets should be mandatory, underpinned by mandatory data collection, and overseen by a central government body with the power to monitor progress and enforce penalties for non-compliance. Penalties should be both proportionate but sufficiently sized to motivate compliance. Annual targets should be effective from 2030, with mandatory data collection and reporting from 2025 to give industry and government time to prepare for implementation. The [implementation plan](#) includes further detail.
- An [economic assessment](#) of the policy proposal suggests it is unlikely to have a significant cost to businesses or consumers. This is due to the sufficient lead-in time between announcement and enforcement, and the flexibility it provides to retailers to find the most cost-effective methods to enhance the healthiness of their sales.

Target and current sales weighted (in kg) average converted NPM score by retailer

Some retailers are already close to the converted NPM target, whilst others have further to go

Legend: + target ● current

11 largest GB retailers (anonymised)



Source: Nesta analysis of Kantar Worldpanel Division Data (2021)

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- We urgently need to reshape our food system so that the healthier option is the easiest option for everyone, regardless of where you buy your food. By implementing ambitious yet achievable mandatory health targets for retailers, we can make real progress towards these goals and start turning the tide on obesity once and for all. Our mandatory targets for retailers policy will deliver significant impact, and take us much of the way to achieving the required change.
- Nesta has also conducted research into other interventions and policy tools to reduce obesity prevalence including:
 - [Improving health through reformulation:](#) We analysed consumer purchasing data to uncover which food categories could be promising targets for reformulation to reduce calorie consumption. Our research showed that 38 calories per person per day could be removed from diets if the food categories we identified in this research as contributing the most to consumption were reformulated to reduce their calorie content by 10%. This is equal to removing 1 billion calories daily across the whole population of Great Britain and

would create savings of around £23 billion over a 25-year period.

- [Food technology innovation](#): We researched the trends in food technologies and innovations to develop a set of recommendations for fiscal incentives to facilitate business progress. These include corporate tax relief of retrofitting food production plants to reformulate products for health, and tax credits and business rates reduction to incentivise and enable innovations that improve the healthiness of foods and food environments.
 - [Delivery apps optimisation](#): Given the significant increase in online platform usage for meal ordering, Nesta utilised a simulated online takeaway platform to explore how apps can be changed to improve the healthiness of consumer purchases. The [research](#) demonstrated that simply repositioning lower-calorie foods and restaurants more prominently on delivery apps resulted in participants ordering 15% fewer calories compared to a control group. Further [research](#) also found that certain calorie labelling designs also led to a significant reduction in calories purchased.
 - [Out-of-home sector analysis](#): Understanding what people eat out of the home is one of the most significant knowledge gaps in the field of obesity research. To address this gap, Nesta is creating a novel dataset that helps us get a clearer overview of what people are eating outside of the home. We will then use the data to design targets for the out-of-home sector aimed at improving health. We will report our findings later in 2024.
- **Nesta is also developing a '[Blueprint for halving obesity](#)' in autumn 2024. This will compare a range of policies on their effectiveness, costs and quality of evidence.** It will enable policymakers to make better decisions on which measures to pursue, and have greater certainty on whether they will deliver the level of impact required. Initial findings from the tool indicate that alongside our mandatory targets policy, the following areas may be important for impact, though further work needs to be done to establish the most impactful policies:
 1. **Policies focused on improving healthiness in the out-of-home sector.** We are developing a detailed proposal (similar to that for

retailer targets) on mandatory targets for the out-of-home sector and how this would work in practice, to be published in spring/summer 2024. We expect these targets to have a significant impact given the growing importance of the out-of-home sector. These targets should be implemented alongside retailer targets. Other policies could include regulation to restrict placement of HFSS products or menu ordering for business in the out-of-home sector and/or mandating maximum calories per portion guidelines for large out-of-home businesses.

2. **Implementing delayed regulations on advertising and price and volume promotions, expanding the ambition.** Regulations announced in 2020 on advertising restrictions (including TV and online, for all high fat, salt and sugar (HFSS) products and unhealthy food and drink brands) and price and volume promotions of HFSS foods have been pushed back to 2025. These should be implemented, with the expanded ambition of restricting all outdoor advertising and advertising of unhealthy food and drink brands. The details of the policy should be considered in tandem with retailer targets, as it may be captured by the discretionary action retailers take to meet the targets we have proposed.

3. **Expansion of treatment services for people living with obesity including behavioural weight management services, and weight loss drugs.** Treatment of obesity will also play an important part in reducing obesity prevalence. Weight loss drugs are a costly solution (we [estimate](#) that it would cost £16.5 billion a year to halve adult obesity in England by 2030 using GLP1s alone, almost the entire annual NHS prescribing budget), but they will help us reach our targets alongside sustained efforts to prevent obesity.

Conclusion

Obesity and diet-related ill health are a major driver of poor health and death in the UK - the risk factors associated with diet-related ill health [represent the top causes of death and disability](#) in the UK after smoking. The potential gains for individuals, the NHS and society through tackling obesity and diet-related ill health are massive. For too long, we have failed to make an impact by focusing on solutions that rely on individual willpower or voluntary action from industry. There are viable policy alternatives which focus on small changes to the food environment which

could make huge strides forward - [our proposal for health targets for retailers](#) is one of them.

5 April 2024