Policy brief

Blueprint by nesta

Blueprint for halving obesity

A toolkit for designing solutions to reduce obesity

The case for a blueprint toolkit

Obesity rates have doubled since 1990, and are highest in the most deprived communities. Excess weight impacts the physical and mental well-being of millions, reducing economic activity, and costing UK society over £126 billion a year, including £12 billion in costs to the NHS. Obesity is treatable and preventable, and Nesta analysis has shown that only modest shifts in our diet are required to halve current rates. However, despite the publication of nearly 700 obesity policies and strategies over the last two decades, rates remain stubbornly high.

Until the blueprint toolkit, there has been no robust and accessible way to assess the relative costs and benefits of the many obesity policies developed over the past two decades. This has resulted in a lack of understanding of what works to tackle obesity and the implementation of low-impact policies that fail to meet the scale of the challenge.

Nesta's blueprint toolkit fills this gap and help policy-makers choose where best to focus efforts and budgets to enact the change we urgently need, so we can take pressure off the NHS, reduce health inequalities, and help more people live healthier lives, for longer.

What have we done?

The blueprint toolkit is the result of two-years of development and ongoing collaboration with academic experts working across obesity, health and the food system to maintain the tool. It is the most comprehensive impact and costing assessment of obesity policies to date (see technical appendix for detailed methodology). Originally published in 2024, the blueprint toolkit is now being

maintained, with refreshes to the source data and adding relevant policies, so that it retains its accuracy and usefulness.

We have created a toolkit where users can compare the evidence quality, impact on obesity, and cost to government of over 30[1] different policies. This also includes over 40 national and international case studies of where policies have already been implemented and a qualitative assessment of the policies' potential impact on health inequalities.

We ranked policies according to the following:

1. **Impact:** Rapid evidence reviews were conducted for each shortlisted policy. Results were inputted into an analytical model that transformed the impact of a policy (or effect size) into a reduction in national obesity prevalence[2].

2. **Strength of evidence:** A strength of evidence scale was created that assessed the reliability and validity of evidence. Policies were scored on a scale from 1-5 (no evidence to very strong).

3. **Cost to governments:** We commissioned HealthLumen to estimate the costs to governments over five years for the first released policies, and have since moved the modelling in-house. This was done through literature reviews and the use of government impact assessments where available, followed by independent consultation with our Expert Advisory Group[3].

4. **Benefits:** The reduction in obesity prevalence figures (as outlined under 'Impact') combined with recent estimates of the cost of obesity to society, were used to calculate the potential cost benefits to governments per year.

[1] Following an initial evidence scan, we shortlisted 31 policies that were likely to be most impactful or were already at the forefront of the debate. Additional policies have since been added to reflect the direction of treatment and the most recent policy landscape.
[2] Modelling was based on the Hall Model, which is the gold standard methodology and basis of the DHSC CALORIE Model.
[3] The Expert Advisory Group consists of leading experts in the field of obesity and health appointed to provide us with advice, guidance and recommendations on our blueprint methodology. Please see Annex B to view members.

Our final ranking and modelling outputs were then reviewed by our Expert Advisory Group[3]. Additionally, over 40 external experts gave feedback on our rankings and impact estimates, with broad support for the findings.

What have we found?

At Nesta, our ambition is to halve national obesity rates, a goal we think is both urgent and achievable. Our analysis shows that there are several feasible and cost-effective routes to realise this goal. Some will require deeper pockets, and others greater political will.

Some of the policies included can be implemented under the reserved powers of the UK Government, while some are covered by the devolved powers of the Scottish and Welsh Governments and some can be delivered by local authorities. Policy action is required at all levels if we are to reduce population-wide obesity rates.

Our analysis makes clear that policies focussed on individual behavioural change (such as media campaigns, information provision, or education in schools) are not sufficient to reduce national obesity rates. While these could form small parts of a wider strategy, we will not get where we need to be on obesity – or indeed the UK government's current commitment to reduce inequalities in healthy life expectancy – without much greater ambition.

To make real change to our world we need a package of policies that includes regulation to shift incentives for big business towards healthier sales, and increased treatment for those most in need.

To illustrate how the toolkit could be used by policymakers designing an obesity reduction strategy, we have estimated the total cost and impact of four potential policy packages, two of which get us to our target of halving obesity (Figure 1). The packages are:

1. **Tax, regulation and treatment:** this is an option that would be high impact and low cost for governments. While this is a package we would endorse, mandating a new tax on food will require significant political will, which may be unlikely within the current context, for example, concerns regarding cost of living.

2. **Treatment only:** this package would extend access to weight loss drugs to approximately all people living with obesity. While a highly effective option for those already living with obesity, this package has a lower impact than packages 1 and 4 as it will not address obesity in children nor the need for preventive action. This treatment-only approach will also be prohibitively expensive at around £42 billion over 5 years.

3. **Education, exercise and services:** this package is relatively low cost and includes many well-known policies that have been the repeated focus of governments to date (eg, education in schools or active transport). These policies would not have sufficient impact on obesity rates, despite being beneficial for other goals.

4. **Prevention and treatment:** this achieves a strong impact at a slightly lower financial and political cost than comparable options. We think this package strikes the best balance between impact, low costs to governments and feasibility within the current political context.

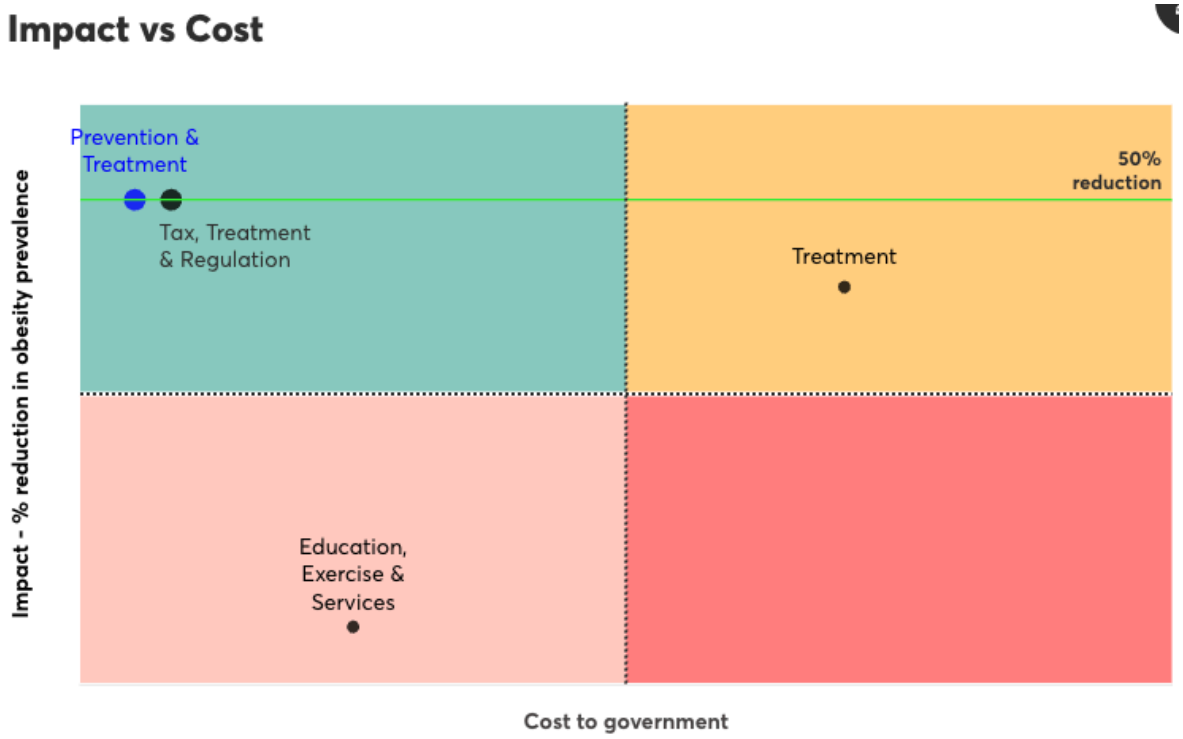

Figure 1: *Cost versus impact of four potential policy packages designed to tackle obesity. See Annex A for further details on impacts, costs, and the policies included in each package. These figures do not include any potential revenue raised.*

Prevention and treatment package

We believe policy package 4 – 'Prevention and treatment' – is the most politically palatable and economically viable route to halving obesity within a single term of government. This package of eight policies is a high-impact, low-cost, equitable approach to halving obesity.

Within this package, the policy with by far the greatest impact is our proposal for health targets for retailers. This policy shows we can achieve the scale of impact required, even without taxes, as long as there is some financial (dis)incentive for big business.

This package of policies for halving obesity by 2030 is as follows (see Annex A for details on each policy):

1. **Implement a mandatory healthiness target for large retailers.** This policy allows the Government to set the ambition while giving businesses the flexibility to find the most cost-effective ways to reach the target. By shifting responsibility from individuals to the food industry, it will be easier for all consumers to make healthier choices regardless of income or geography. This policy was used as the basis for the new Healthy Food Standard, announced within the 10 Year Health Plan, to be implemented nationally by all large food businesses.
2. **Mandate data collection of sales and nutritional information for large businesses (in a data reporting framework such as the Food Data Transparency Partnership (FDTP)).**
3. **Enforce provision of interpretative front-of-pack labelling on packaged food in retail.**
4. **Restrict advertising of HFSS products, including TV, online, and public transport.**
5. **Restrict location promotions of HFSS food and drink on food/drink delivery platforms.**
6. **Ban all price promotions of HFSS foods for large out-of-home businesses such as restaurants, coffee shops and fast food outlets.**

7. **Extend access to pharmacological weight loss interventions via ring-fenced funding for NICE-recommended treatments (liraglutide and semaglutide)[4].**
8. **Extend access to NHS Digital Weight Management Programme so that 250,000 people living with a BMI of 30 or above are offered a free referral via primary care.**

We think this package provides the right approach to tackling obesity for several reasons:

- **It focuses on changing the food environment** by incentivising the food and drink sector to significantly improve its offer to consumers.
- It **does not place extra burden on individuals** to spend more or act differently in order to lose weight. **This is critical if we are to tackle existing inequalities in obesity prevalence**. This is especially true for our mandatory targets proposal, which aims to make everyone's weekly shop healthier, regardless of income or where people choose to shop.
- It will **impact the whole food system** (manufacturing, retailer, and the out-of-home sector), helping to level the playing field, a concern consistently raised by industry stakeholders.
- It ensures those whose health is at greatest risk due to obesity are able to benefit from the **most effective treatment options currently available**.
- It provides a **framework for monitoring** changes across the food environment and any unintended impacts of new policies on inequalities, by mandating high-quality, transparent data reporting by big business.

At Nesta, we are confident that with the right level of ambition and a focus on the evidence, real and equitable progress on obesity is within reach, and the blueprint toolkit can help us get there. We want to work collaboratively with national, and

[4] This policy was created prior to NICE approval and 2025 rollout of tirzepatide. That is why we have modelled for liraglutide and semaglutide, rather than recommending one medication over another. We support the focus of the 2025 NHSE rollout on those with the highest need (BMI over 40 and co-morbidities). However, we would welcome measures to expand access beyond those with the highest levels of BMI.

local governments to drive towards a policy package that has the highest chance of success.

Annex A: Policy detail, cost and impact of four costed policy packages for obesity reduction

Package 1: Tax, regulation and treatment

Individual policies	Total cost to governments over 5 years*	Impact on obesity
Ban all price promotions of discretionary foods for medium and large out-of-home businesses (eg, restaurants, coffee shops, fast food outlets).	~£4.9 billion	~50% decrease in obesity prevalence
Ban all price promotions of discretionary foods in the retail sector excluding small and micro businesses.		
Expand the **soft drinks industry levy** to sweetened milk-based drinks.[5]		
Implement levy on salt and sugar – £3/kg on sugar and £6/kg on salt (the NFS tax).		
Extend access to NHS Digital Weight Management Programme so that 250,000 people living with a BMI of 30 or above are offered a free referral via primary care.		
Offer everyone with a BMI of 30 or above a **free referral to a Total Dietary Replacement** programme via primary care.		
Provide £85 million of funding per year for **increased roll-out of family-based programmes**** to the local authorities with the highest childhood obesity rates.		
Extend access to pharmacological interventions by providing an extra £500 million per year of ring-fenced funding to provide increased access to NICE-recommended weight loss		

[5] This policy was modelled before the government's 2025 announcement of Strengthening the Soft Drinks Industry Levy, where the threshold will be lowered from 5g to 4.5g sugar per 100ml and will be expanded to include milk-based and milk substitute drinks, alongside a new Health Impacts assessment for the policy.

treatments (liraglutide and semaglutide)[4].		

**These figures do not include any potential revenue raised from taxes, which could be substantial.*

Package 2: Treatment only

Individual policies	Total cost to governments over 5 years*	Impact on obesity
Extend access to pharmacotherapy so that approximately 3 million more people (BMI≥30) receive GLP-1 treatment each year.	~£42 billion	~41% decrease in obesity prevalence

Package 3: Education, exercise and services

Individual policies	Total cost to governments over 5 years*	Impact on obesity
Enforce provision of interpretative front-of-pack labelling on retail packaging.	~£15 billion	~6% decrease in obesity prevalence
Fund and roll out **a mass media campaign aiming to promote healthy eating.**		
Allocate £100 million per year to **improve nutrition and food preparation literacy in childhood** through the state education system.		
Allocate **£100 million per year to improve provision of physical education** and increase physical activity in school children.		
Allocate £100 million per year to **fund a programme of financial incentives to improve health behaviours** in local authorities with the highest obesity rates.		
Restrict the opening of new fast food restaurants within 400m of schools.		

Provide business rates relief of 75% to new or expanded businesses selling fresh fruit and vegetables.		
Invest a further £500 million over 5 years in **local authorities to plan and deliver active transport through Active Travel England** (or equivalent in DAs).		
Introduce universal free school meals.		
Mandate the inclusion of health-based standards in catering contracts that serve public spaces.		
Continued universal BMI monitoring for children in reception and year 6.		

Package 4: Prevention and treatment

Individual policies	Total cost to governments over 5 years*	Impact on obesity
Regulate large retailers to achieve a health target on all the products they sell whereby their entire food product portfolio scores ≥ 69 on a converted nutrient profile model.	~£2.7 billion	~50% decrease in obesity prevalence
Mandate data collection of sales and nutritional information for large businesses (in a data reporting framework such as the Food Data Transparency Partnership (FDTP)).		

Enforce provision of interpretative front-of-pack labelling on packaged food in retail.		
Restrict advertising for HFSS products: implement a 2100-0530 watershed for TV and online advertising, alongside strict limitations on online paid advertisements, as well as prohibiting all HFSS advertisements on public transport, including bus stops, train stations, and tube stations (via national regulation).		
Ban all price promotions of discretionary foods for medium and large out-of-home businesses (eg, restaurants, coffee shops, fast food outlets).		
Restrict 'location' promotions of HFSS food and drink on food/drink delivery platforms.		
Extend access to pharmacological interventions by providing an extra £500 million per year of ring-fenced funding to provide increased access to NICE-recommended weight loss treatments (Liraglutide, Semaglutide)[4].		
Extend access to NHS Digital Weight Management Programme so that 250,000 people living with a BMI of 30 or above are offered a free referral via primary care.		

Annex B: Blueprint Expert Advisory Group

Clare Llewellyn, UCL, Associate Professor of Behavioural Science & Health

Emilie Combet Aspray, University of Glasgow, Professor of Human Nutrition

Emma Frew, University of Birmingham, Professor of Health Economics

Gareth Hollands, UCL, Principal Research Fellow in Evidence Synthesis and Behavioural Science

Jessica Renzella, University of Oxford, Lecturer in Population Health

Katharine Jenner, Obesity Health Alliance, Director

Kimberley Neve, Cancer Research UK, Prevention Policy Research Manage

Laura Johnson, Laura Johnson Consultancy Ltd, Consultant

Lindsay Jaacks, University of Edinburgh, Professor of Global Health and Nutrition

Peymane Adab, University of Birmingham, Professor of Chronic Disease Epidemiology & Public Health

Rachel Pechey, University of Cambridge, Associate Professor/Sustainable Healthy Food Group

Simon Russell, UCL, Senior Research Fellow and Unit Manager of the NIHR Policy Research Unit in Obesity at the UCL and GOSH

Sumantra (Shumone) Ray, Director of Research in Food Security, Health and Society, University of Cambridge

Susan Jebb, University of Oxford, Professor of Diet and Population Health

Theresa Marteau, University of Cambridge, Director of Behaviour and Health Research

Tom Burgoine, University of Cambridge, Senior Research Associate

About Nesta

We are Nesta. The UK's innovation agency for social good.

We design, test and scale solutions to society's biggest problems. Our three missions are to give every child a fair start, help people live healthy lives and create a sustainable future where the economy works for both people and the planet.

For over 20 years, we have worked to support, encourage and inspire innovation.

We work in three roles: as an innovation partner working with frontline organisations to design and test new solutions, as a venture builder supporting new and early-stage businesses and as a system shaper creating the conditions for innovation. Harnessing the rigour of science and the creativity of design, we work relentlessly to change millions of lives for the better.

Find out more at nesta.org.uk