

About Nesta

Nesta is the UK's innovation agency for social good. We have worked for over 20 years to design, test and scale new solutions to society's biggest problems, changing millions of lives for the better.

Introduction

As a population, we are consuming too many additional calories, leading to high rates of excess weight: 63% of adults in the UK are overweight or obese¹. Efforts have been made by governments across the UK to encourage industry to make food healthier via voluntary reformulation targets and mandatory regulation such as the sugar and salt reduction programmes and the Soft Drinks Industry Levy (SDIL)²³.

Our research set out to uncover which food categories could be promising targets for reformulation to reduce excess calorie consumption, and to understand what the main barriers or opportunities to reformulation were. We conducted mixed methods research that included: a) original analysis by Nesta of in-home food and drink purchases for over 29,000 households in Great Britain using data provided by an international market research company⁴, b) interviews with food industry representatives and public health stakeholders; and c) an expert report from food product development consultancy, Bingham and Jones⁵.

Nesta's research

Our analysis shows 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. An average 38 calories daily reduction could save around 300,000 Quality Adjusted Life Years (QALY) over a 25 year period across the population (one QALY is one year of life in perfect health)⁶.** These QALY savings are equivalent to a monetary value of

¹ Cancer Research UK (2018/19). *Overweight and Obesity Statistics*. Access at:

<https://www.cancerresearchuk.org/health-professional/cancer-statistics/risk/overwei>

² UK Parliament Post (2021). *Food and drink reformulation to reduce fat, sugar and salt*. Access at:

<https://researchbriefings.files.parliament.uk/documents/POST-PN-0638/POST-PN-0638.pdf>

³ Voluntary targets from PHE programmes include the increasing targets from the [salt reduction programme](#), the 20% reduction in the [sugar reduction programme](#) and the 10% reduction for retail and 20% reduction for out of home in the [calorie reduction programme](#).

⁴ The data source for our analysis is from 2021. The data covers over 36 million transactions for purchases of all food and drinks brought into the home by a sample of 29,000 households living in Great Britain, alongside demographic and socio-economic background data. This dataset does not cover out of home purchases such as takeaways, on-the-go food, or restaurants/cafe meals.

⁵ <https://www.binghamandjones.co.uk/>

⁶ We have calculated the QALY savings using the Department of Health and Social Care's Calorie Model. Using the DHSC Calorie Model, 1 calorie reduction / day = 8,720 QALYs saved over 25 years, therefore a 38 calorie reduction per day saves 331,360 QALYs over 25 years. The DHSC Calorie Model looks at the long-term benefits of Government policies designed to reduce excess calorie consumption at a population level. Benefits are modelled over 25 years, a period deemed long enough to see significant health benefits from policies. For more detail please see the Technical Consultation Document, Department of Health and Social Care (DHSC) Calorie Model:

https://assets.publishing.service.gov.uk/Government/uploads/system/uploads/attachment_data/file/736417/dhsc-calorie-model-technical-document.pdf

around £23 billion over 25 years, when using the Government's estimate of the monetary value of a single QALY at £70,000⁷.

Findings and recommendations

Reformulation should focus on foods which lead to the most excess calorie consumption.

Recommendation A: We identified ten categories which contribute most to calorie consumption. These categories are: ambient cakes and pastries, chocolate confectionery, everyday biscuits, savoury pastries, morning goods, treats, salad condiments, chilled ready meals, crisps, and chilled cakes⁸.

Lower calorie options are not always available and accessible to all consumers.

Recommendation B: So that all consumers can access lower calorie options, industry should reformulate their main default products rather than creating two-tiers of products where one is the healthier alternative to the existing option.

There is a lack of transparency, accountability, and parity across the food sector.

Recommendation C: Government should set mandated calorie reduction targets for specific food categories, as outlined in recommendation A. Track progress towards achieving these and issue fines where businesses fail to meet the targets.

Recommendation D: Government should develop a robust data infrastructure that mandates the collection and public reporting of health metrics and food reformulation targets. The Government should not delay bringing in reporting on health metrics as part of the Food Data Transparency Partnership⁹.

Recommendation E: An organisation or body should be given the statutory powers to design, set and monitor the targets. The body should lead on tracking and reporting progress on achieving the targets, and be able to enforce penalties or fines for non-compliance.

The risk and upfront investment required to prioritise reformulation for health is a significant barrier for industry.

Recommendation F: Government should incentivise industry to reformulate and de-risk the upfront investment. This could be achieved through fiscal incentives. Non-financial incentives should also be considered, such as a public ranking system.

For more information, please contact lauren.bowesbyatt@nesta.org.uk

⁷ For more information on the how the monetary value of a QALY is calculated, refer to the HM Treasury Green Book 2022: <https://www.gov.uk/Government/publications/the-green-book-appraisal-and-evaluation-in-central-government/the-green-book-2020>

⁸ These categories are: ambient cakes and pastries, such as mince pies and malt loaves; chocolate confectionery, such as bars of chocolate; everyday biscuits, such as digestives and custard creams; savoury pastries, such as sausage rolls and quiches; morning goods, such as crumpets and croissants; treats, such as chocolate digestives, jaffa cakes and cookies; salad condiments, including mayonnaise; chilled ready meals; crisps; chilled cakes, such as cheesecake. The analysis looked at the in-home food and drink purchases for over 29,000 households in Great Britain for 2021. See full report for further details on the analysis.

⁹ Government Food Strategy (2022). Access at: <https://www.gov.uk/Government/publications/Government-food-strategy/Government-food-strategy#:~:text=The%20strategy%20launches%20our%20Food.environmental%20outcomes%20through%20our%20food> .