



New calorie labelling regulations in England

One small step in the right direction

Asha Kaur,¹ Adam Briggs,² Jean Adams,³ Mike Rayner¹

¹ Nuffield Department of Population Health, University of Oxford, Oxford, UK

² Warwick Medical School, University of Warwick, Warwick, UK

³ MRC Epidemiology Unit, University of Cambridge, Cambridge, UK

Correspondence to: A Briggs
adam.briggs@warwick.ac.uk

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Regulations came into effect on 6 April¹ requiring restaurants, cafes, and takeaways in England to provide calorie information on menus and food displays, including those online. The legislation applies only to businesses with over 250 employees, with exemptions for charities, hospitals, care homes, and temporary menu items. But this is still an important milestone in government obesity policy—an area where promised interventions are not always delivered.²

The global burden of diet-related ill health is growing.^{3,4} In England, 68% of men and 60% of women are overweight or obese.⁵ Recent estimates suggest a huge jump in rates of childhood obesity. Over 40% of 10-11 year olds were overweight or obese in 2020-21 compared with 35.2% the year before, and obesity rates are twice as high among the most deprived children as in the least deprived.⁶

The introduction of calorie labelling regulations should be applauded. Up to a quarter of adults' calories are consumed outside the home.⁷ The policy should have some, albeit limited, effect through changes to consumer behaviour and reformulation. One systematic review found that calorie labelling on menus led to a 7.8% (95% confidence interval 2.5% to 13.1%) reduction in calories purchased.⁸ Other systematic reviews found limited evidence of a reduction in calories purchased⁹ or menu reformulation, although this may be because of a lack of larger studies.¹⁰ In the US, where calorie labelling has been mandatory for large chains since 2018,¹¹ reductions have been reported in both calories purchased and the number of calories in food items.¹² In New South Wales, Australia calorie labelling has also had a positive influence on consumer behaviour.¹³

Policies that aim to benefit everyone by working at the population level and require limited personal resources to benefit, such as a sugar tax, are more likely to reduce the overall disease burden and be equitable than individual level policies aimed at high risk individuals, such as referring people to exercise classes.¹⁴

Compulsory calorie labelling is a population level policy with both high agency (individuals making choices) and low agency (menu reformulation) mechanisms of action. Evidence suggests that benefits may vary across socioeconomic groups,¹⁵ including data from the US suggesting calorie labelling may have a greater influence on calorie intake among people from higher socioeconomic groups.¹⁶

Other concerns include the possibility of adverse effects on people with eating disorders,¹⁷ although

businesses covered by the regulations must provide menus without calorie labelling on request. While there is limited evidence of harm from countries that already mandate calorie labelling, this should be monitored closely as the policy is rolled out.

Missed opportunity

Diet-related ill health needs a multifaceted, cross-government response¹⁸ that combines individual level approaches for those at high risk with an increased emphasis on population level, low agency policies¹⁹ that are implemented and evaluated appropriately.² England's current obesity strategy includes some population level policies such as banning advertisements for unhealthy food before 9 pm on television and at all times online, and ending multibuy offers in large retail outlets.²⁰

The introduction of calorie labelling may be seen as a missed opportunity to provide more comprehensive nutritional information on menus. Labelling policies for packaged foods in Brazil, Chile, and Mexico, for example, mandate clear black and white warning labels on foods high in salt, sugar, or saturated fat. Other schemes include traffic light labelling²¹ (red, amber, green) to indicate whether a food contains high, medium, or low levels of fat, saturated fat, sugar, and salt. The Nutri-Score system,²² which assigns foods one of five colours (red to green) and a letter (A-E) based on multiple nutrients and components, has been used on packaged foods since 2017—on a voluntary basis—in France, Belgium, Switzerland, Germany, Luxembourg, Spain, and the Netherlands. Both colour coded labels and warning labels have been associated with healthier consumer choices.²³ Labelling foods according to their effect on the environment could have added benefits for planetary health.²⁴⁻²⁶

The policies outlined in England's obesity strategy are unlikely to lead to the profound changes in our food environment required to reverse current obesity trends. England's National Food Strategy argues that consumers and businesses are stuck in a "junk food cycle" that "We cannot escape ... without rebalancing the financial incentives within the food system."²⁷ Calorie labelling on food eaten outside the home could encourage food outlets to reduce the calorie content of their foods,²⁸ but it's not the radical change called for. The food strategy's recommendations include a sugar and salt reformulation tax with some of the revenue raised funding subsidies for fresh fruit and vegetables.

The impact of the calorie labelling policy will be monitored through regular reports by food authorities and the secretary of state for health and social care, and by an independent scientific evaluation.²⁹ It must

be considered as just one part of a much broader approach to reshape the food system.

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- 1 Calorie Labelling (Out of Home Sector) (England) Regulations 2021. <https://www.legislation.gov.uk/uk/si/2021/909/made>
- 2 Theis DRZ, White M. Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992-2020. *Milbank Q* 2021;99:126-70. doi: 10.1111/1468-0009.12498 pmid: 33464689
- 3 Afshin A, Forouzanfar MH, Reitsma MB, et al GBD 2015 Obesity Collaborators. Health effects of overweight and obesity in 195 countries over 25 years. *N Engl J Med* 2017;377:13-27. doi: 10.1056/NEJMoa1614362 pmid: 28604169
- 4 NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128·9 million children, adolescents, and adults. *Lancet* 2017;390:2627-42. doi: 10.1016/S0140-6736(17)32129-3 pmid: 29029897
- 5 NHS Digital. Health survey for England 2019: overweight and obesity in adults and children. <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019>
- 6 NHS Digital. National child measurement programme, England 2020/21 school year. <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year/age#time-series>
- 7 National Centre for Social Research, MRC Elsie Widdowson Laboratory, University College London Medical School. National Diet and Nutrition Survey Years 1-6, 2008/09-2013/14 [data collection]. 8th ed. 2017. doi: 10.5255/UKDA-SN-6533-7
- 8 Crockett RA, King SE, Marteau TM, et al. Nutritional labelling for healthier food or non-alcoholic drink purchasing and consumption. *Cochrane Database Syst Rev* 2018;2:CD009315. pmid: 29482264
- 9 Cantu-Jungles TM, McCormack LA, Slaven JE, Slebodnik M, Eicher-Miller HA. A meta-analysis to determine the impact of restaurant menu labeling on calories and nutrients (ordered or consumed) in US adults. *Nutrients* 2017;9:1088. doi: 10.3390/nu9101088 pmid: 28973989
- 10 Bleich SN, Economos CD, Spiker ML, et al. A systematic review of calorie labeling and modified calorie labeling interventions: impact on consumer and restaurant behavior. *Obesity (Silver Spring)* 2017;25:2018-44. doi: 10.1002/oby.21940 pmid: 29045080
- 11 US Food and Drug Administration. Patient Protection and Affordable Care Act, HR 3590. 2010.
- 12 Zlatevska N, Neumann N, Dubelaar C. Mandatory calorie disclosure: a comprehensive analysis of its effect on consumers and retailers. *J Retailing* 2018;94:89-101. doi: 10.1016/j.jretai.2017.09.007
- 13 NSW Food Authority. *Evaluation of kilojoule menu labelling*. NSW Food Authority, 2013.
- 14 Adams J, Mytton O, White M, Monsivais P. Why are some population interventions for diet and obesity more equitable and effective than others? the role of individual agency. *PLoS Med* 2016;13:e1001990. doi: 10.1371/journal.pmed.1001990 pmid: 27046234
- 15 Sarink D, Peeters A, Freak-Poli R, et al. The impact of menu energy labelling across socioeconomic groups: A systematic review. *Appetite* 2016;99:59-75. doi: 10.1016/j.appet.2015.12.022 pmid: 26723238
- 16 Petimar J, Zhang F, Cleveland LP, et al. Estimating the effect of calorie menu labeling on calories purchased in a large restaurant franchise in the southern United States: quasi-experimental study. *BMJ* 2019;367:l5837. doi: 10.1136/bmj.l5837 pmid: 31666218
- 17 Calories on menus: eating disorder fears over new rules. *BBC News* 2022 Apr 5. <https://www.bbc.co.uk/news/uk-england-leeds-60999980>
- 18 Kaur A, Briggs ADM. Calorie labelling to reduce obesity. *BMJ* 2019;367:l6119. doi: 10.1136/bmj.l6119 pmid: 31666229
- 19 Health Foundation. *Addressing the leading risk factors for ill health*. 2022. <https://www.health.org.uk/publications/reports/addressing-the-leading-risk-factors-for-ill-health>
- 20 Department of Health and Social Care. Childhood obesity: a plan for action, chapter 2. 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718903/childhood-obesity-a-plan-for-action-chapter-2.pdf.
- 21 Food Standards Agency. Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets. 2016. https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_O.pdf
- 22 Spanish Agency for Consumer Affairs Food Safety and Nutrition. Activity report of the transnational governance of Nutri-Score. 2022. https://www.aesan.gob.es/AECOSAN/docs/documentos/Nutri_Score/Report_2021_Steering_committee_VF2.pdf
- 23 Song J, Brown MK, Tan M, et al. Impact of color-coded and warning nutrition labelling schemes: a systematic review and network meta-analysis. *PLoS Med* 2021;18:e1003765. doi: 10.1371/journal.pmed.1003765 pmid: 34610024
- 24 Potter C, Bastounis A, Hartmann-Boyce J, et al. The effects of environmental sustainability labels on selection, purchase, and consumption of food and drink products: a systematic review. *Environ Behav* 2021;53:891-925. doi: 10.1177/0013916521995473 pmid: 34456340
- 25 Bunge AC, Wickramasinghe K, Renzella J, et al. Sustainable food profiling models to inform the development of food labels that account for nutrition and the environment: a systematic review. *Lancet Planet Health* 2021;5:e818-26. doi: 10.1016/S2542-5196(21)00231-X pmid: 34774122
- 26 Onwezen M, Dwyer L, Fox T, Snoek H. Conditions for the effectiveness of labelling: a systematic literature review. 2021. <https://www.wur.nl/en/show/Conditions-for-the-effectiveness-of-labelling.htm>
- 27 Dimbleby H. National food strategy: the plan. 2021. www.nationalfoodstrategy.org
- 28 Theis DRZ, Adams J. Differences in energy and nutritional content of menu items served by popular UK chain restaurants with versus without voluntary menu labelling: A cross-sectional study. *PLoS One* 2019;14:e0222773. doi: 10.1371/journal.pone.0222773 pmid: 31618202
- 29 National Institute for Health Research. Funding and awards. Research award: implementation and assessment of mandatory calorie labeling in the out-of-home sector. <https://fundingawards.nihr.ac.uk/award/NIHR200689>.