Turning the Tide



A 10-year Healthy Weight Strategy



This project was made possible with funding from the British Heart Foundation, Cancer Research UK, the Health Foundation and the Wellcome Trust. The academic project team is part of the SPECTRUM Consortium that is funded by the UK Prevention Research Partnership (grant MR/S037519/1).











Contents

Foreword	5
About this strategy	6
Executive summary	8
Recommendations	10
1. Turning the tide towards healthy weight	16
2. Perceptions of health and weight: ending stigma	28
3. How the market shapes food environments, and what needs to change to promote healthier weight	35
4. Healthier food and drink	37
5. The fiscal levers for health	48
6. The environment around us	58
7. Advertising and promotions	68
8. Early years of life	77
9. Management, treatment and support	85
10. Better policy, greater impact	95
Acknowledgments	102
Strategy development process	102

Abbreviations

APPG	All-Party Parliamentary Group	NHS	National Health Service	
ASA	Advertising Standards Authority	NHSE	NHS England	
BEIS	Department for Business, Energy & Industrial Strategy	NICE	National Institute of Health and Care Excellence	
BMI	Body mass index	ОНА	Obesity Health Alliance	
CAP	Committee of Advertising Practice	OHID	Office for Health Improvement and	
CMO	Chief Medical Officer		Disparities	
DCLG	Department for Communities and Local Government	OOH OSCHR	Out-of-home Office for Strategic Coordination of	
DCMS	Department for Digital, Culture, Media &		Health Research	
	Sport	PE	Physical education	
DEFRA	Department for Environment, Food & Rural	PHE	Public Health England	
	Affairs	RIBA	Royal Institute of British Architects	
DFE	Department of Education	RTPI	Royal Town Planning Institute	
DIT	Department for International Trade	SCHOPR	Strategic Coordination of Health of the	
DHSC	Department of Health and Social Care	CDII	Public Research committee	
DPP	Diabetes Prevention Programme	SDIL	Soft Drinks Industry Levy	
DWP	Department for Work and Pensions	TIA	Trade and Investment Agreement	
FCDO	Foreign, Commonwealth & Development Office	UN CRC	United Nations Convention on the Rights of the Child	
FSA	Food Standards Agency	VLED	Very low energy diet	
GBSF	Government Buying Standards for Food and Catering Services	WHO	World Health Organization	
GEO	Government Equalities Office			
GP	General practitioner			
HEE	Health Education England			
HFSS	High in fat, sugar and salt			
HMT	Her Majesty's Treasury			
HRS	Healthcare Retail Standard			
HSE	Health and Safety Executive			
IPA	Infrastructure and Project Authority			
IfG	Institute for Government			
DLUHC	Department for Levelling Up, Housing and Communities			
NCD	Non-communicable disease			
NIHR	National Institute for Health Research			
NFS	National Food Strategy			

Foreword

Two years ago, I was invited to act as an independent non-expert chair of a specialist working group advising the Obesity Health Alliance on the development of its long-term healthy weight strategy, which would set out a series of evidence-informed policy recommendations. Little did we know that we were on the cusp of an infectious disease pandemic that would propel the acute risks of overweight and obesity to our health into stark focus, laying bare the underlying immense inequality in health and its social and economic determinants.

My involvement in the development of this strategy has challenged my own ignorance and prejudice, as the complexities and drivers of and solutions to, the rising tide of overweight and, obesity became clearer to me

The evidence reviews and expert discussions that have informed the strategy show how much more we now know about the biology, genetics and health consequences of excess weight at individual and population levels. It is increasingly clear that some people are more susceptible to gaining and retaining weight. But, over time, the biology of obesity has not changed and neither has our population-level genetic composition – so if we are to look at causes then we must look not just at the biology or individual behaviour but our wider environments. As my career in infectious disease epidemiology has taught me, epidemics arise as a result of complex interactions between the biology, the behaviour of populations and the environments in which we live.

I particularly wanted to hear from people living with overweight and obesity, as I know from my own past work on HIV/AIDS how valuable the insights and suggestions of those with lived experience can be – and I am grateful to those who shared their experiences so freely with us. What they told us is that a focus on health (not just on weight) is what matters most to them, alongside the challenge of confronting the appalling stigma and discrimination that many people living with obesity are forced to experience every day.

The many government policies to address obesity over the last 30 years have failed. It is thus high time to declare high tide and recognise the right of all of us to healthy weight and to an environment in which healthy weight maintenance, and appropriate treatment and support is universally accessible. This requires a much broader policy approach than has been taken to date, intervening right across the system and addressing the full range of individual and collective causes of obesity: while each intervention may have a relatively small impact on its own, simultaneously addressing the many drivers of unhealthy weight could make a big difference. This is the challenge we address here, and I would like to thank all those involved - the working group, specialist advisors, Obesity Health Alliance members, and the members of our insight panels – for giving their time so generously, despite the many pressures posed by the ongoing Covid-19 pandemic.

Coming at a moment at which there is both the political and public thirst for action, this strategy sets out a clear, long-term, evidence-informed agenda for multiple policies and actions needed to turn the tide and improve healthy weight across the population. It outlines steps that can and should be taken across central and local government, industry and through public advocacy: regulating the promotion of unhealthy foods and creating incentives for the demand, production and marketing of affordable and accessible healthier foods, providing appropriate treatment for those who seek it, driving out stigma, and insisting (as has successfully been achieved in smoking) that we turn the tide and ensure healthier, affordable, and enjoyable environments for all of us today and for future generations.

Professor Dame Anne Johnson, Chair of Expert Working Group



About this strategy

This strategy was developed with the oversight of an independent expert working group, who generously provided considerable time and expertise to review evidence, attend meetings and provide substantial input to drafts.

Members of the working group:

- Chair: Professor Dame Anne Johnson Professor of Infectious Disease Epidemiology, University College London
- Academic lead: Professor Linda Bauld OBE Professor of Public Health, University of Edinburgh and Director of SPECTRUM
- Professor Peymané Adab Professor of Chronic Disease Epidemiology and Public Health, University of Birmingham
- Professor Paul Aveyard Professor of Behavioural Medicine, University of Oxford
- Professor Rachel Batterham Professor of Obesity, Diabetes and Endocrinology, University College London
- Professor Simon Capewell Professor of Public Health and Policy, University of Liverpool
- Alison Cox Policy and Advocacy Consultant
- Professor Amandine Garde Professor of Law, University of Liverpool

- Professor Corinna Hawkes Director, Centre for Food Policy, City, University of London
- Dr Tim Lobstein Consultant to World Obesity Federation
- Professor Dame Theresa Marteau Director of the Behaviour and Health Research Unit at the University of Cambridge
- Dame Una O'Brien former Permanent Secretary (2010–16), Department of Health and Social Care
- Dr Justin Varney Director of Public Health, Birmingham Council
- Professor Russell Viner Professor of Adolescent Health at the UCL Institute of Child Health
- Professor Martin White Programme Leader, Population Health Interventions, Centre for Diet and Activity Research, MRC Epidemiology Unit, University of Cambridge

The Obesity Health Alliance thanks the following expert advisors who provided significant advice and input to particular parts of the strategy.

- Professor Annie S. Anderson University of Dundee
- Dr Adrian Brown, University College London
- Michael Chang Public Health England
- Dr Paddy Dempsey University of Cambridge / University of Leicester
- Professor Mary Fewtrell University College London
- Dr Stuart Flint University of Leeds
- Dr Joseph Henson University of Leicester
- Professor Susan Jebb University of Oxford
- Dr Julie Lanigan University College London
- Vanessa Lucas Local Government Association
- Dr Helen Pineo University College London
- Dr Alex Rowlands University of Leicester
- Anna Taylor The Food Foundation
- Julia Thrift Town and Country Planning Association
- Chris Wright and Ali Oliver Youth Sport Trust
- Professor Tom Yates University of Leicester

Project secretariat

- Project manager Caroline Cerny
- Writer Katy Cooper
- Academic reviews Dr Lauren Carters-White

An overview of the strategy development process is on p102

Public insight

From the start of this project, it was important to the Obesity Health Alliance and the working group that the strategy reflects the views of those affected by its recommendations and several public insight forums were held to hear views from young people, those living with obesity and a broader cross-section of the public.

Thank you to Simon Denegri OBE, who provided valuable advice on public engagement to shape our approach (outlined on p102) and chaired the lived experience and youth panels.

This strategy is supported by Obesity Health Alliance members, listed below:

- Academy of Medical Royal Colleges
- Action on Sugar
- Association of Directors of Public Health
- Best Beginnings
- Biteback 2030
- British Association of Sport and Exercise Medicine
- British Association for Study of the Liver
- British Dental Association
- British Dietetic Association
- British Heart Foundation
- British Liver Trust
- British Medical Association
- British Obesity and Metabolic Surgery Society
- British Society of Gastroenterology
- Cancer Research UK
- Caroline Walker Trust
- Centre for Ageing Better
- Children's Food Campaign
- Children's Liver Disease Foundation
- Diabetes UK
- Faculty of Dental Surgery, Royal College of Surgeons of England
- Faculty of Sport and Exercise Medicine
- First Steps Nutrition
- The Food Foundation

- Health Action Campaign
- Health Equalities Group
- Heart Research UK
- HENRY
- Institute of Health Visiting
- Men's Health Forum
- Obesity Action Campaign
- Obesity Empowerment Network UK
- Obesity UK
- Royal College of Anaesthetists
- Royal College of General Practitioners
- Royal College of Midwives
- Royal College of Nursing
- Royal College of Obstetricians and Gynaecologists
- Royal College of Paediatrics and Child Health
- Royal College of Physicians
- Royal College of Psychiatrists
- · Royal College of Surgeons of Edinburgh
- Royal Society of Public Health
- Society for Endocrinology
- UK Association for the Study of Obesity
- UK Faculty of Public Health
- UK Public Health Network
- World Cancer Research Fund
- Welsh Obesity Society

Scope

Obesity presents a health challenge across the UK and this strategy highlights UK-wide data, insight and policy. This strategy is aimed primarily at the UK Government. The four UK nations have differing populations with different needs so tailored approaches are needed, and in a few cases the recommendations reflect or build on commitments already made by devolved governments. Health is largely a devolved matter, but some of the recommendations in this strategy go wider than health systems and would involve the use of devolved powers. See Appendix 1 for a breakdown of recommendations and their implications across the UK.



Executive summary

Over the last 30 years, levels of obesity have increased significantly across the UK. This rising tide has brought with it serious repercussions for health and wellbeing and the piecemeal efforts by governments to turn this tide have, to date, been largely unsuccessful. However, there is convincing evidence that the right strategy – one that takes a system-wide approach across everywhere we live, learn, work and play – will enable everyone to move towards attaining, sustaining and enjoying improved wellbeing and a healthy weight, regardless of age, ethnicity and background.

There is good reason for hope: this is practical and achievable. Tides are notoriously difficult to turn. But even the strongest tides, when the time is right, will turn – and now is one of those critical moments, putting the UK Government in a position to be the first in the world to successfully reverse the persistently rising levels of excess weight in the population.

The UK has a unique combination of opportunities:

- The last few years have seen a far more nuanced understanding of the evidence on the complexities of weight and the multiple drivers of obesity. This is leading to an appreciation of the necessity for a raft of policies that address the wider environment and put less emphasis on individual responsibility.
- Public and media concern about the impacts
 of unhealthy weight on health, particularly on
 children, is evident and there is strong support for
 government action.
- There is increased political will to act. This is being catalysed by a growing understanding of the co-benefits with other issues of importance to governments, including the increased risk of poor Covid-19 outcomes for those living with obesity and the win-wins with climate change efforts.
- The centrality of health inequality as a fundamental driver of obesity is increasingly acknowledged by policymakers. The levelling-up agenda is a wider societal approach that has significant potential implications for equity in obesity prevention and treatment and beyond.

The 10 chapters and accompanying recommendations of this strategy set out the evidence for a long-term agenda to turn the tide over the next 10 years. They have been developed in partnership with a range of experts from academic, policy, clinical and civil society backgrounds and are supported by the health charities, medical royal colleges and campaign groups that make up the Obesity Health Alliance (OHA).

The recommendations are set out in a 'KIND' framework that builds on existing policy progress and identifies new routes for action, outlining next steps for government and other stakeholders:



Keep policies already in place or that are on the way to being implemented that support a healthy weight environment



Intensify existing policies or approaches to increase impact;



New proposals are recommended for evidence-informed actions; and



Develop policies based on the results of new, promising areas for research and investment, identified throughout this strategy.

The 30 recommendations cover the whole environment in which we live and deliver a positive vision for the future:

- readily available food and drinks are healthier as well as enjoyable and tasty, with appropriate portion sizes, and with clear nutritional information both on product packaging and on food eaten out of the home;
- access to healthy food is affordable, businesses profit from prioritising healthy products, and health-promoting aspects of our environment are well resourced for all;
- everyone lives, works, learns and plays in environments in which healthier food is the most convenient and default option and in surroundings that support being physically active;
- all food and drink advertising and promotions support and encourage diets that benefit the health and wellbeing of adults and children;
- all children have the healthiest possible start in life, setting them up for a healthy growth trajectory;
- a better understanding of the varied causes of obesity means that weight stigma of any kind is eliminated in all settings, and becomes socially unacceptable;
- a fully resourced system that offers and delivers equitable access to appropriate, tailored and sustained weight-management and support services to people living with overweight and obesity;
- policies prioritise health, making sustained progress on an evidence-informed approach to healthy weight for the whole population.

People are at the heart of this strategy, and are central to all the recommendations. A new narrative that avoids stigma and weight discrimination is essential if people living with excess weight are to be fully supported, and the inequities that drive ill-health are to be recognised and addressed.

Achieving lasting change requires a robust policy infrastructure with effective leadership and cross-government working. A recognition of the evolving nature of evidence and a commitment to an iterative cycle of implementation and evaluation is needed.

The drivers of healthy weight are complex. There is no one single policy or approach that can make the difference. However, the implementation of the recommendations contained in this strategy will combine to create an environment within which all can live lives that enable a healthy weight, all can equitably access appropriate treatment for obesity, and stigma and weight discrimination is a thing of the past. Change will not happen overnight but this strategy brings together a broad cross-sector alliance to support delivery of these recommendations and to keep moving in a positive direction.

This is a vital moment to seize the opportunity to put evidence-informed action at the heart of the political agenda. This will save lives, improve health and promote wellbeing for everyone. It will also take growing pressure off our overstretched NHS, increase individual and economic resilience and turn the tide away from obesity and towards a healthy weight once and for all.

Recommendations



KEEP This section outlines our support for moves by the UK Government to implement evidence-backed policies that will contribute to healthy weight at a population level.

- 1 We fully endorse plans to introduce a 9pm watershed on TV and a ban of paid-for advertising online for unhealthy food and drink, plus new restrictions on promotions on unhealthy food and drinks in retail outlets and online. These must be implemented in full and without delay.
 - We back plans to introduce calorie labelling in large outlets along with a comprehensive evaluation to understand the impact on different groups.

We encourage the UK Government to push ahead with plans announced in the 2019 Prevention Green Paper:

- Reinstatement of the National Infant Feeding Survey.
- New restrictions on sales of energy drinks to children under 16.

We fully support a continued focus on addressing the drivers of obesity across the life course, ensuring stronger arrangements to secure cross-government co-operation, action and accountability in healthy weight policy.



INTENSIFY This section outlines our recommendations that build on existing evidence-backed policies or interventions and for the enhanced funding and training needed to deliver the vision of this strategy. These should be implemented within the next five years.

Responsibility

- **2** Ensure government communications and campaigns do not perpetuate weight stigma and policies and strategies relating to healthy weight actively refute stigma.
- All government departments



- **3** Ensure nutrient information is displayed clearly on all food and drink products at point of sale, including online, to include:
- DHSC



- Mandatory front-of-pack nutrient labelling.
- Addition of free sugar content on front-of-pack labels and quantity of sweeteners on back-of-pack labels.
- Calorie information on all alcoholic product labels.
- **4** Make a specific, time-bound commitment to introduce regulation to mandate calorie limits on single-serve portions of HFSS products if 25% of the calorie reduction targets have not been achieved by the first report point (2022) in the ongoing calorie reduction programme.





5 Update food and buying standards to reflect dietary guidance and ensure they are robustly applied and monitored in multiple settings with monitoring and enforcement assigned to relevant statutory bodies or the FSA.

Standards development led by DHSC Role for all government departments to assign enforcement



		Responsibility
6	Mandate Ofsted to evaluate primary and secondary schools on their delivery and implementation of a whole school approach to building in opportunities for structured and unstructured physical activity across the day.	DfE
7	Introduce next-stage regulation to ensure all advertising and promotion in external settings is for healthier products by: extending the 9pm watershed on unhealthy food and drinks adverts to cinema and radio; removing outdoor advertising for unhealthy food and drinks and ending marketing and promotions related to unhealthy food and drinks in family attractions, childcare and educational establishments.	DHSC, DCMS
8	Extend all existing and new advertising restrictions to adverts for food and drink brands that are associated with predominantly unhealthy products.	DHSC, DCMS
9	Incentivise a shift to promotions and deals on healthier food and drinks in the out-of-home sector (including online delivery platforms) by extending restrictions on multi-buy promotions of unhealthy food and drink products.	DHSC
10	Improve the nutritional content of infant food by strengthening the existing reformulation programme to fully align with WHO Europe recommendations for sugar and salt and commit to the introduction of a regulatory lever (such as fines or sanctions) if sufficient progress is not made by 2024.	DHSC
11	Strengthen the policymaking process across the design, implementation and evaluation of policies on obesity and healthy weight, ensuring detailed policy plans are published along with economic, health, equity and environmental impact assessments.	All government departments
12	Identify opportunities to share the UK's experience of successful and unsuccessful approaches to healthy weight policy internationally and work collaboratively with other countries to bring in aligned policies that incentivise global change across the food system.	DHSC, FCDO, DEFRA
13	 Deliver a sustainable strategy for the NHS and local authorities to guarantee consistent and equitable access to all levels of effective weight management services, including Centrally mandating the provision of all levels of effective weight management services in every local health system, ensuring embedded psychological support plus a range of virtual and traditional services. Reviewing and updating NICE and NHS England guidance to improve the effectiveness of service delivery by simplifying commissioning and introducing more flexible patient pathways. 	DHSC, NHSE, NICE, local authorities, local health systems
14	Use data to ensure that services are tailored to the needs of the population, including an analysis of the planned National Obesity Audit data to inform future service planning; quantitative evaluation of local service provision to identify areas	NHSE, local health systems

for improvement in uptake, impact and development of validated patient reported

outcome measures.

15 A well-resourced system is needed to provide the services and create the environments needed to facilitate healthy weight. These recommendations relate to funding.

Invest at least £1 billion^A more a year in the Public Health Grant, with future yearly increases aligned to the NHS budget increases. This will ensure local authorities are well placed to deliver the recommendations outlined in this strategy outlined below.

Increase the mandated universal face-to-face contacts with a health visitor to

DHSC/local authorities

HMT/DHSC

eight, with enhanced tailored follow-up where needed to improve outcomes.

Ensure universal breastfeeding support programmes are accessible to all

- Local authorities



Provide children's centres or family hubs in areas of high deprivation.

families.

Local authorities

- Local authorities
- Maintain at least £350m/year investment^B into PE, school sport and physical activity across all state schools and link to national targets for children's physical activity to ensure accountability.

Provide and maintain local environments that promote physical activity.

Local health

DfE





services, both in central government funding and in local health system budgets. This should include a minimum term for all weight management funding.

Deliver greater sustainability in funding across the range of weight management

16 A range of professionals have a stake in improving health and training; it is vital to ensure they have the right knowledge and skills.

Health and care professionals should receive comprehensive training in discussing weight and disordered eating with confidence, in a sensitive and non-stigmatising way.

All education and training curricula for all health and care professionals should include the complexities of obesity and the implications of weight stigma.

Health and care providers should encourage all clinical staff to complete appropriate training on stigma and how to discuss weight and health appropriately.

Training for professionals working with expectant parents and families must include the skills needed to discuss infant and child healthy growth and healthy eating with compassion and sensitivity.

Training for early years practitioners should include skills to enable them to incorporate physically active play in their settings and confidently reach out and support play between parents and children in and around the home.

Training for planners and other built environment specialists should include modules on healthy place-making, providing an understanding of the role of the built environment as part of the wider determinants of health.

Professional institutes. NHS Trusts and Health providers









AThis would restore the public health grant to 2015/16 levels according to Health Foundation analysis. https://www.health.org.uk/news-and-comment/news/public-health-grant-allocations-represent-a-24-percent-1bn-cut

^B The Government's School Sport and Activity Action Plan lists spending initiatives of at least £350 million per year



NEW This section outlines our recommendations for new policies or interventions that will deliver the vision of this strategy and should be implemented within the next five years. Responsibility 17 Ensure that healthcare environments are size-inclusive where feasible, with provision **NHS Trusts &** other health of suitable equipment for people with obesity. providers 18 Provide greater clarity on the legal responsibility of employers to not discriminate **GEO** against employees based on their weight. This should include consideration of policies that would specifically prohibit obesity discrimination in the workplace. 19 Introduce a fiscal lever on food and drink manufacturers to incentivise further HMT, DEFRA, reformulation of processed food, such as the sugar and salt reformulation tax DHSC proposed in the National Food Strategy. **DIT, DHSC** 20 Set out a process to ensure that the UK Government, in its trade negotiations and agriculture policy development, protects the right to health and the right to adequate nutritious food and related rights for all, to include: participation of public health experts and relevant civil society organisations; the publication of mandatory health impact assessments; time for meaningful Parliamentary scrutiny and debate; the adoption and implementation of mechanisms intended to protect public interests from undue commercial interference. **21** Introduce new regulations to limit the use of promotional techniques on unhealthy **DHSC** food and drink product packaging, including: restrictions on the use of cartoon, brand equity and licensed characters along with celebrities and sports stars; ending the use of on-pack promotional offers including giveaways and competition prizes and restrictions on nutritional and health claims. 22 Introduce a legal duty for large food businesses to provide annual data on their sales DHSC, FSA of HFSS products, to be collated and published by the Food Standards Agency. 23 Update national planning and licensing policies to explicitly state that a primary MHCLG, DHSC purpose of the planning system is to create places in which people of all ages, abilities and financial means can live safe, active healthy lives, including objectives to reduce health inequalities and address public health priorities such as healthy weight. 24 Ensure only healthier food and drink products can be associated with sports, with DHSC, DCMS new restrictions on any kind of sports sponsorship of unhealthy products and brands.

25 Ensure that all infants and young children at risk of, or with overweight and obesity are identified and supported. This requires height and weight measurements to be taken at 2-2.5-year check with data nationally collated, and the development of a model pathway with guidance to identify infants and key principles for future management with targeted pathways for the highest risk communities (such as looked after children and those with special education needs).

DHSC



Responsibility

26 Prevent the misleading marketing of food and drinks aimed at infants and young children with new regulations to ensure honest labelling that aligns with public health advice. Introduce further regulation – including extending the ban on advertising infant formula milk to follow-on formula – so marketing cannot be used to undermine breastfeeding or mislead parents.

DHSC



27 Undertake initiatives across the entire healthcare system to increase the uptake of weight management services, particularly amongst socioeconomic groups that are most under-represented in these services.

DHSC, OHID, local health systems



28 Develop, collaboratively across the four UK governments, fair and ethical principles fair and ethical principles for interacting with the food industry, underpinned by the latest evidence on the commercial determinants of health.

DHSC



DEVELOP This section outlines our recommendations for further policy development and research to inform future policies and interventions within the next ten years.

Responsibility

29 The following areas require further policy development with a view to bringing in new policies in the next ten years.

DHSC, HMT, BEIS

- Policies that address disproportionate pricing structures on unhealthy products.
- Policies that facilitate purchase of healthier options on food delivery aggregator platforms.
- Policies that reduce the accessibility of unhealthy food and drink, particularly to older children, including licensing retailers or curbing the hours when products can be sold.
- Regular reviews to update the nutrient profiling model to reflect the latest dietary quidance.
- Assess the potential and utility of fiscal stimulus mechanisms to support food businesses to shift towards the production, manufacture, and sale of healthier food and drink products.









- 30 Increased investment into obesity related research is required. SCHOPR should review the key evidence gaps in research and policy evaluation, review research investment in the area, and identify areas and mechanisms (including role of funders) for improving the evidence base for policy through increased research investment and the evaluation of policies as they are implemented.
 - In reviewing relevant literature to inform the strategy, a number of research gaps were identified. This is not an exhaustive list, but instead provides examples of topics where new or further research is needed to inform future policies and interventions.
 - The relative effect of different elements of product packaging such as use of colour, pictures, warnings and branding on purchase and consumption.
 - Further research into effective approaches to support physical activity in the workplace.

SCHOPR with OSCHR and funders to review research landscape





- Digital marketing innovation emerging food marketing techniques.
- The impact of price reduction strategies on purchasing of unhealthy products.
- How to reduce obesity stigma in all settings.
- Effectiveness and take-up of weight management support and interventions for families.
- Impact of regular monitoring of weight in healthcare settings on motivation of patients and healthcare professionals.
- An assessment of the latest developments in treatment options and their role in weight management services.
- Effective approaches to maintain weight loss.
- Effectiveness of new commercial self-management services.
- To ensure conclusions from research offer the best opportunity to support progress in as broader range of the population as possible, while also guarding against unintended negative consequences, all future research (whether focused on treatment or prevention) should include the mental as well as physical health aspects of obesity and disordered eating.

















1. Turning the tide towards healthy weight

Time for change

In 1991, the UK Government set its first target for reducing obesity rates in England: to achieve a return to 1980 levels of 7% by 2005. Many strategies and policies have been announced in the intervening years and yet, 30 years later, **this and all subsequent targets have been missed**. The rising tide of obesity continues, and socioeconomic inequalities continue to widen across all four nations of the UK.

Today the majority of adults in England – 68% of men and 60% of women – are above a healthy weight, and over a quarter have obesity (27% of men and 29% of women), with the highest rates among the lowest socioeconomic groups.² Progress towards the current government ambition for childhood obesity in England, set in 2018³ – 'to halve childhood obesity and significantly reduce the gap in obesity between children from the most and least deprived areas by 2030' – seems out of reach.

Behind the statistics are real people. Despite being the majority, people living with excess weight and obesity often experience stigma and discrimination, with 'fat shaming' common and rarely questioned or challenged. This stigma can profoundly affect people's mental health and willingness to seek care for health conditions, and the discrimination can affect people's access to support and restrict life chances at work and in education.⁴

At a population level, overweight and obesity are powerful risk factors for devastating diseases – including type 2 diabetes, cardiovascular disease, dementia, liver disease and many common cancers – and put strain on joints, increasing the risk of musculoskeletal conditions. Covid-19 has brought sharply into focus the additional challenge that obesity brings to the risk of communicable diseases – people living with obesity are at significantly greater risk both of admission to hospital and of death due to Covid-19.5

Adverse consequences are also seen in children living with obesity, who have a higher risk of obesity, ill health and early death in adulthood⁶, as well as experiencing poor psychological and social effects during childhood.⁷

The costs of obesity are experienced not only in the health, wellbeing and life chances of individuals and families, but also by the economy. In 2014/15, the NHS spent £6.1 billion on treating obesity-related ill health and this is forecast to rise to £9.7 billion per year by 2050.8 The indirect costs are even greater, as obesity leads to lost working days, additional welfare payments and early retirement.9

But this is a challenge that can be overcome: it is time to learn lessons and do better. Over the same three decades in which obesity has continued to rise, UK smoking rates have been halved (from 30% in 1990 to 14.1% in 2019)¹⁰ achieved through a series of comprehensive government strategies. Stop-smoking services have been widely available and the drivers of the tobacco epidemic have been addressed through a raft of population health interventions, including the prohibition of all forms of marketing, the creation of smoke-free public spaces and significant tax rises. The Government is now confident enough in England to have set a 'smoke-free' target (defined as smoking prevalence of less than 5%) by 2030 which, while still challenging, would have been unthinkable 30 years ago.¹¹

Similar successes in reducing obesity-related ill health can be realised if the UK Government adopts population-level measures to deliver systemic change – namely, policies that reduce the risks of people becoming overweight, coupled with appropriate treatment and care that is targeted and individually tailored for those who want to lose weight, maintain weight loss and improve their wellbeing. Any strategy must also include commitments to eradicate the societal stigma associated with obesity, to include people living with obesity in policy development and implementation, and to reduce the clear and unacceptable inequalities both in the social determinants of health and in access to care for those living with excess body weight.

The Covid-19 pandemic has laid bare the interdependence of the economy and the health of the population. It has never been clearer that all areas of government must act far and fast in the public interest to achieve the healthy population and economy needed for a successful and thriving nation.

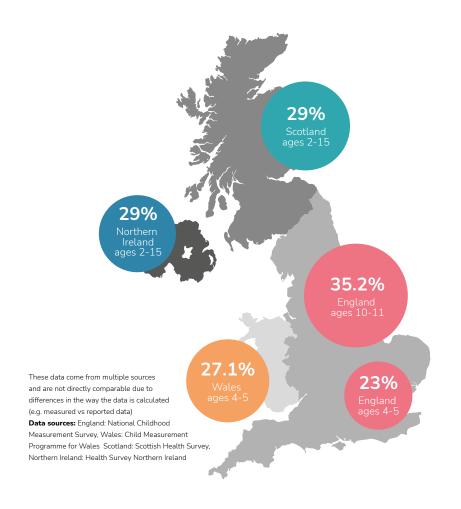
The current picture

The rise in rates of overweight and obesity continues across the four nations of the UK, among both adults and children – as shown in figures 1-3. Adult obesity has increased from 13% and 16% for men and women respectively in 1993 to 27% of men and 29% of women by 2019. Desity rates in 10–11-year-olds increased from 17.5% in 2006/07 to 21% in 2019/20 – an overall trend that hides the widening of inequalities in childhood obesity over time, and a sharper rise in severe obesity among boys. Severe obesity – defined by the National Institute of Health and Care Excellence (NICE) as a BMI of 40 kg/m² or over (or a BMI centile greater than or equal to 99.6 for children has been a three-fold increase among adults (from 1% to 3%). Severe and the severe of the severe and the severe and

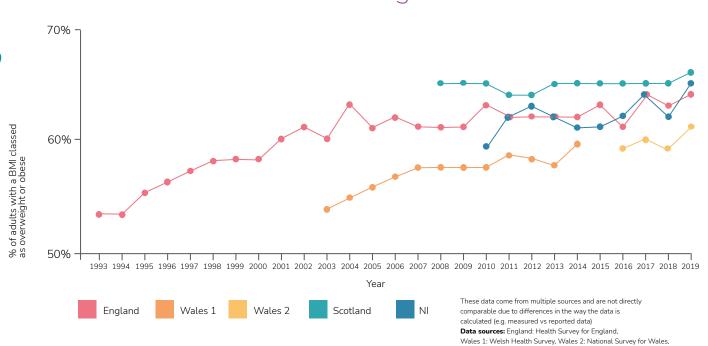
When the whole distribution of BMI for the adult population is compared over time, the population-level shift is very evident, with mean BMI in the adult population increasing from 25.8kg/m^2 in 1993 to 27.6 kg/m^2 in 2019 (see figure 4).¹⁶

The already high average figures hide **pervasive socioeconomic inequalities** (**see figure 5**): obesity among women in the most deprived groups in England, for example, is 39.5% compared with 22.4% in the least deprived groups (30.2% and 21.9% for men).¹⁷ Even more concerning, although childhood obesity may appear at first glance to have levelled off and even reduced in the more affluent subsections of UK society, prevalence has increased in deprived populations (see figure 6) and in some minority ethnic groups. For example, in England, 27.5% of year 6 children in the most deprived areas were living with obesity in 2019/20 compared to 11.9% of those in the least deprived areas.¹⁸ Inequality in obesity can also be a driver of inequality in the impact of communicable diseases, including Covid-19.

Excess weight prevalence in UK children

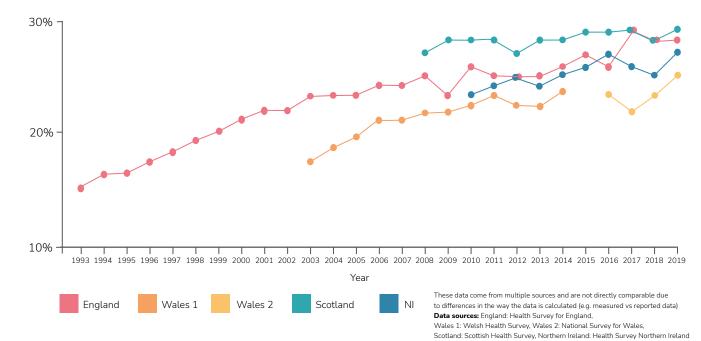


Trends in adult excess weight across the UK

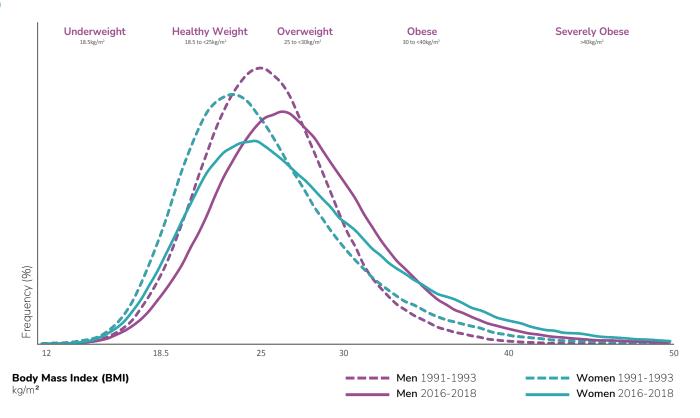


Scotland: Scottish Health Survey, Northern Ireland: Health Survey Northern Ireland

Trends in adult obesity across the UK



Change in the distribution of adult BMI Health Survey for England 1991 to 1993 and 2016 to 2018



Adapted from PHE: Patterns and trends in adult excess weight: national data

Shifting the focus

Over the last three decades, many policies have been introduced across all four nations to address obesity. Since 1991 there have been 14 government health strategies that have set targets for obesity reduction in England, containing 689 policy recommendations. 19 Across the four nations, the most recent policies are as follows:

- A Healthier Future Scotland's Diet & Healthy Weight Delivery Plan (Scotland, 2018)²⁰
- A Fitter Future for All: Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012–2022 (Northern Ireland, 2012)²¹
- Healthy Weight, Healthy Wales (Wales, 2019)²²
- Tackling Obesity: Empowering Adults and Children to Live Healthier Lives (England, 2020).²³

Turning the tide on obesity takes time, and the recent increased awareness and political will to work towards achieving a healthy weight for all is very welcome and could be the tipping point that is needed for effective action. However, decades of previous government strategies have not, so far, made a significant impact: obesity prevalence among adults and children remains unacceptably high and shows little sign of reversal, which suggests that the majority of the policy interventions announced to date have been inadequate in design, implementation and evaluation, or in all three.²⁴

The evidence presented in this strategy is clear: obesity cannot be addressed one person at a time and population-level policies to address structural change in food and broader environmental systems are needed, ensuring that people, of all ages and backgrounds, is equally supported to be healthy. However, many past government strategies and policies have been framed and weighted towards measures that rely on individual choice and behaviour. This might have been expected to change following the UK Government's 2007 Foresight obesity report, which described the complex range of factors that affect individuals' weight and spelled out the challenges of the modern 'obesogenic environment' but, in practice, individual responsibility has remained the primary engine of change in government policy. To

maximise the potential for effective, equitable impacts, governments can learn lessons from earlier policy limitations and prioritise policies that make minimal demands on individuals and that have the potential for population-wide reach.²⁷ An example of this is the soft drinks industry levy, which has led to significant reductions in sugar in soft drinks (discussed in chapter 5).

This strategy also focuses on the importance of taking a rights-based approach (box 1), as set out in the United Nations Convention of the Rights of the Child (UN CRC) and the United Nations International Covenant on Economic, Social and Cultural Rights, to both of which the UK is a signatory. When health is articulated within obesity policy not as a choice but as a legally enforceable right, the case for action is strengthened and the scope for action increases.

The Covid-19 pandemic has brought into sharp focus the enormous challenge and costs of obesity. It is this opportunity for a change in mindset that this strategy aims particularly to amplify and support into the long term. It is time to look beyond the focus on individual choice and behaviours and instead consider a more comprehensive, evidence-informed strategy, directly addressing the complex systems that have driven the decades-long increase in population prevalence of obesity.

New policies will be needed across government departments and at all levels of government – local, national and international. Clear cross-government and cross-sectoral responsibilities and accountabilities are critical to delivering success. This strategy therefore sets out interlinked, evidence-informed policies that are designed to address the key drivers of obesity simultaneously. Each chapter of this strategy explores the opportunities for intervention targeting the most powerful points of leverage in relevant systems, with the potential to bring about the most beneficial changes in diet, physical activity and obesity. It is within the power of government to take action today towards this integrated and comprehensive approach, rebalancing systems to favour healthy weight.

A rights-based approach

Under the UK's international human-rights commitments, the UK Government is legally obligated to respect, protect and fulfil the right to 'the enjoyment of the highest attainable standard of physical and mental health, ²⁸ including through the fulfilment of a number of other rights. **Human rights should inform all government action, providing direction for all decisions that impact upon public health and healthy weight.**

An example is a rights-based approach to marketing on unhealthy foods, particularly in the case of children. The UN Convention on the Rights of the Child (UN CRC) requires that the 'best interests of the child' be prioritised – with 'child' defined as all those under the age of 18.²⁹ As children gain independence in adolescence, they are more susceptible to the influence of their peers (including through social media) and may be more impulsive.³⁰

Under the UN CRC, children's 'participation rights' (such as the right to freedom of association, for example at sports events or through social media) are to be balanced with 'protection rights' (such as the right to privacy, the right to health and the right to be free from economic exploitation).³¹ Governments have the responsibility to ensure that children are free to participate in society without exposure to marketing of products that threaten their best interests and their right to health.³²

Taking action in a complex system

The complexity of obesity means that there can be no simple answer: there is no single most important intervention to improve healthy weight, and therefore there is no 'silver-bullet' policy.³³ However, there are **very many effective and evidence-informed levers for change.**

This strategy takes a fresh look at the established and emerging evidence, distilling it into system-wide policy recommendations that, implemented together, will have significant impact at both population and individual level.

Levers for change in the food system are available to address all of the 'four Ps' of the food industry's marketing mix: **product, promotion, price and place** (see chapters 3–7). The food system is complex and adaptive, consisting of many interdependent components and subsystems, working at multiple levels from global to local, and with feedback loops within and between the subsystems that respond to changes and seek to maintain equilibrium.³⁴ This strategy suggests that we need evidence-informed policy that will modify the system to become one that promotes health.

This strategy places particular emphasis on the **early years**. While effective policies are needed to influence healthy weight across the life course, pregnancy and the first few years of life represent a unique window of opportunity to start children on a healthy weight trajectory; this strategy includes a number of specific recommendations for this period (chapter 8).

Improvements to current **treatment and care of people living with excess weight and obesity** are also a core concern, particularly addressing inequity in the provision of care (chapter 9).

Crucially for success, people living with obesity must be

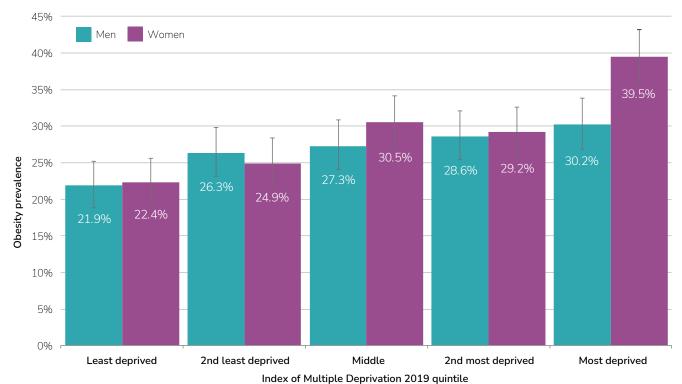
meaningfully involved throughout all policy development processes to ensure that their knowledge and experience is appropriately captured and used, both to **address pervasive stigma** (chapter 2) and to inform the policies that will make a real difference to all of us. There are also growing concerns about the rise in eating disorders (affecting people across the weight spectrum) and involving specialists in policy discussions could help consider any potential impacts and ensure that the preventions and treatment of obesity and eating disorders are coordinated.

System adaptation in response to government policy and regulation is inevitable as food companies and other stakeholders respond in their own interests. To remain effective, government strategy must forecast possible system responses right from the start and **evaluate policies in practice**, so that policy can be adapted and iterated over time (chapter 10). Policy research and development needs must be integrated into policy planning processes to build on the existing evidence base.

A system-wide approach to healthy weight also has important co-benefits with another major UK Government priority: addressing climate change. **Environmental sustainability and human health are strongly interlinked** and there is potential for very significant win-wins across the obesity and Net Zero agendas – for example, better enabling the population to follow the Government's Eatwell Guidance for a healthy diet could reduce greenhouse gas emissions from the food system by an estimated 30%, as well as reducing mortality from diet-related diseases by 7%.³⁵ This is not dealt with in detail in this strategy, but provides strong support for the approach detailed here.

% children with weight classed as obese

Adult obesity prevalence by deprivation Health Survey for England 2019

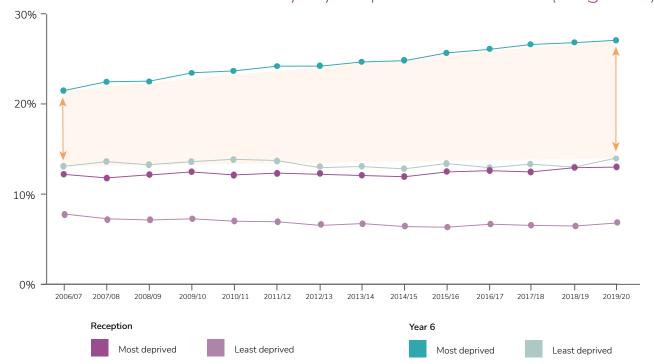


Obesity prevalence is age standardised

95% confidence intervals are shown Adult (aged 16+) obesity: BMI >30kg/m²

Adapted from PHE: Patterns and trends in adult excess weight: national data

Trends in child obesity by deprivation status (England)



Data sources: National Childhood Measurement Programme

The drivers of healthy weight

Some people have underlying susceptibility to obesity: specific genes have been identified that are associated with obesity, which can be linked to excess weight gain from the earliest months of life, and these **genes may contribute to an increased risk of weight gain, through hormonal and neural pathways** and feedback loops. However, there are multiple other contributing factors that affect individuals' weight: life experiences and cultural norms, deprivation and employment type, psychological factors, other health issues (including mental health conditions), and access (or lack of it) to non-stigmatising treatment and support.³⁶

In particular, the major factor that influences every aspect of life, and over which policy can have significant influence, is the increasingly 'obesogenic environment' to which we are all now exposed from infancy onwards – one in which calorie-dense, nutrient-poor food is accessible, abundant, affordable and normalised (as explored extensively in the 2021 National Food Strategy), and where physical activity opportunities are not built into everyday life.³⁷ Exposure to obesogenic environments is not equally felt by all: there are significant inequalities in both the food and physical-activity environments,³⁸ which drive the increased prevalence of unhealthy weight in deprived areas.

There has been a substantial shift in population weight over decades, not because people no longer care about being a healthy weight, but because obesity is a normal response to this abnormal environment: the 'micro' environment (such as an individual's own home, school or place of work) also contributes to whether individuals develop obesity, with the 'macro' environment determining the prevalence of obesity in a society.³⁹ **This leaves the majority of people vulnerable to obesity, with the greatest barriers to healthy weight being faced by the most disadvantaged in our society.**

'People in the UK today don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers. Society, however, has radically altered over the past five decades, with major changes in work patterns, transport, food production and food sales'

Tackling Obesities: Future Choices – Project Report⁴⁰

Factors that can contribute to weight



This figure is intended to provide a basic overview of the myriad factors that can influence weight. For a comprehensive map of the causal factors and their connections, see the Foresight Obesity Systems Map (https://www.gov.uk/government/publications/reducing-obesity-obesity-system-map).

The rationale for the Obesity Health Alliance 10-year Healthy Weight Strategy

- A healthy population is essential to the social and economic wellbeing and resilience of the nation – and health is challenged by obesity in many ways.
- Creating an environment that enables people to improve their health is a role of government.
- There is no one single cause of obesity and no one single policy that will address it: a broad range of actions are required, which positively change the systems and structures that are driving unhealthy weight.
- Multiple, coordinated approaches are required to foster healthy weight at every stage of life, from pregnancy through childhood to the oldest age.
- Policies must apply without discrimination, focusing on enabling health-promoting behaviours regardless of individuals' weight, and providing sustained, compassionate support for those with overweight and obesity.
- Obesity is not solely a problem of individual responsibility: shame and stigma cause damage and lead neither to weight loss nor to healthpromoting behaviour.

- Many of the root causes of obesity are driven by wider socioeconomic inequity. This strategy must be considered as part of a broader cross-government approach to tackle inequalities.
- There is a major opportunity for action on obesity to have co-benefits with actions needed to address the climate crisis.
- Engagement of those who will be affected by policy is essential: the OHA has listened to the public, including young people and – most importantly – people with lived experience of obesity. Their voices are reflected in each chapter.
- This strategy is, of necessity, long term: it offers a
 10-year vision and lays out incremental steps that
 the OHA believes will bring about the most impactful
 change, informed by evidence and expert opinion.
- This strategy has been developed independently of government and any commercial vested influences.

The role of physical activity

'If physical activity were a drug, we would refer to it as a miracle cure, due to the great many illnesses it can prevent and help treat' – UK Chief Medical Officers, 2019^{41}

Physical activity – any movement that requires energy expenditure⁴² – has been clearly shown to have physical, emotional and cognitive effects, contributing to prevention of a wide range of physical and mental-health conditions at all ages, with associated wider benefits for quality of life. This includes preventive effects for coronary heart disease, stroke, type 2 diabetes, some cancers and social isolation, improved learning and attainment among children and increased productivity at work, and reduction in air pollution from active travel.

Physical activity and obesity

Physical activity helps to prevent overweight and obesity⁴³ and maintain a healthy weight in interlinking ways. It helps to maintain energy balance,⁴⁴ it contributes to the development of cognitive skills (including the ability to self-regulate, which is negatively related to obesity and can predict healthy living in later life⁴⁵), and it improves mental health, which helps to overcome the bi-directional relationship between obesity and depression.⁴⁶

But however good physical activity undoubtedly is – whether for overall health, for initial maintenance of a healthy weight from childhood and in weight-loss maintenance – the evidence suggests that physical activity alone is insufficient to lead to sustained weight loss.⁴⁷ The proportion of calories per day expended in physical activity is only a small proportion of that needed for metabolism, and compensatory eating may inadvertently outweigh the deficit. In addition, the evidence on obesity is that the outdated mantra of 'calories in, calories out' is inaccurate and profoundly unhelpful. Physical activity should be facilitated, encouraged and enjoyed for its health benefits at all ages and not negatively positioned as mere mitigation for eating.

Creating opportunities to be active

The 2019 guidance from the four UK Chief Medical Officers (CMOs) on the level of physical activity recommended for good health⁴⁸ across the life course is very clear. The guidance reflects the most recent evidence on physical activity, including the importance of strength exercises at all ages and the risk of sedentary behaviour for health (associated with obesity in children): 'even relatively small increases in physical activity can contribute to improved health and quality of life'. These health benefits apply irrespective of an individual's weight.

However, it is also evident that many of us are far from reaching the recommended levels. The averages also hide significant inequities: while fewer than half of young people are meeting the CMOs' guidance on average, 53% of those from the most affluent families reach the guidance but just 38% from the least affluent.⁴⁹

A health-enabling environment is one in which everybody has opportunities to be physically active at multiple points every day;⁵⁰ this can help all ages to maintain their weight and improve overall health and wellbeing.

Taking a whole-systems approach, ensuring that opportunities for physical activity are accessible to and enjoyable for everyone of all ages and are widely taken up – and focusing on the least affluent areas to address inequalities – will play a key role in prevention of obesity and underpins this strategy (see, particularly, chapter 6: 'The environment around us'). This can be achieved through creating an environment within which physical activity and active travel – such as walking or cycling to the shops – is a normal part of everyday life for all of us.

"Active travel" (or active transportation or mobility) means walking or cycling as an alternative to motorised transport (notably cars, motorbikes/mopeds etc.) for the purpose of making everyday journeys. ⁵¹

A note on language

The OHA has chosen to call this a 'healthy weight' strategy in recognition of its focus on population health. As a coalition of health-focused organisations, the OHA acknowledges that health is broader than weight alone, reflected in the approach taken by this strategy.

This strategy will predominantly use person-first language that considers people in a holistic way, rather than by a characteristic.

Overweight and obesity are defined by the World Health Organization (WHO) as abnormal or excessive fat accumulation that presents a risk to health.⁵² In this strategy, overweight and obesity are used as clinical terms.

This strategy refers throughout to unhealthy, healthy and healthier food. While the OHA recognises the challenges of categorising individual products, a way to identify the foods that contribute little to health is needed for effective policy implementation:

- **Unhealthy / less healthy** used to refer to food and drinks that are high in fat, sugar and salt (HFSS). These are typically high calorie, energy dense and frequently highly processed products that contribute little in terms of nutrients. In the UK, the nutrient profiling model is used to identify products that are HFSS.⁵³
- **Healthy** used to refer to food and drinks that contribute to a healthy diet. These are typically minimally processed foods that are part of the Eatwell Guide, such as fruit and vegetables, seeds and nuts, fish and seafood, olive oil, and whole grains.
- **Healthier** this refers to all food and drinks that are not classed as high in fat, sugar and salt, based on the nutrient profiling model. 'Healthier' is not a proxy for healthy.

References

- UK Government 1992 The Health of the Nation: A Strategy for Health in England https://navigator.health.org.uk/theme/health-nation-strategy-health-england-white-paper
- 2. NHS Digital 2020 Statistics on Obesity, Physical Activity and Diet, England, 2020 https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/england-2020
- 3. HM Government 2016 Childhood Obesity: A Plan for Action https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/546588/Childhood obesity 2016 2 acc.pdf
- 4. S. Le Brocq et al. 2020 'Obesity and COVID-19: a call for action from people living with obesity' *The Lancet Diabetes & Endocrinology* (8)8: 652–4 https://doi.org/10.1016/S2213-8587(20)30236-9
- 5. M. Gao et al 2021 'Associations between body-mass index and COVID-19 severity in 6·9 million people in England: a prospective, community-based, cohort study' *Lancet Diabetes & Endocrinology* 9(6): 350−9 https://doi.org/10.1016/S2213-8587(21)00089-9
- 6. JJ. Reilly and J. Kelly 2011 'Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review' *International Journal of Obesity* 35(7): 891–8 https://doi.org/10.1038/ijo.2010.222
- 7. J. Rankin et al. 2016 'Psychological consequences of childhood obesity: psychiatric comorbidity and prevention' *Adolescent Health, Medicine and Therapeutics* 7: 125 https://doi.org/10.2147/AHMT.S101631
- 8. Government Office for Science 2007 *Tackling Obesities: Future Choices Project Report* (Foresight report, 2nd edition) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/287937/07-1184x-tackling-obesities-future-choices-report.pdf
- 9. Institute for Employment Studies 2019 *Obesity and Work: Challenging Stigma and Discrimination* https://www.employment-studies.co.uk/system/files/resources/files/526.pdf
- 10. ASH 2021 'Smoking statistics' (factsheet) https://ash.org.uk/wp-content/uploads/2019/10/SmokingStatistics.pdf
- 11. APPG on Smoking and Health 2021 *Delivering a Smokefree 2030*: The All Party Parliamentary Group on Smoking and Health Recommendations for the Tobacco Control Plan 2021 (lune) https://ash.org.uk/about-ash/all-party-parliamentary-group-on-smoking-health/inquiries-reports/deliveringasf2030appgtcp2021/
- 12. NHS Digital 2020 'Health Survey for England, 2019' https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019/health-survey-for-england-2019-data-tables
- 13. NHS Digital 2020 'National Child Measurement Programme, England 2019/20 School Year' https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2019-20-school-year#resources
- 14. NHS Digital 2020 'Appendix C calculation of prevalence' in *Appendices: National Child Measurement Programme England, 2019/20 School Year* https://files.digital.nhs.uk/8A/8D425E/nati-chil-meas-prog-eng-2019-2020-app.pdf
- 15. NHS Digital 2020 'Health Survey for England, 2019' https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019/health-survey-for-england-2019-data-tables
- 16. PHE 2021 'Patterns and trends in excess weight among adults in England' (blog, 4 March) https://publichealthmatters.blog.gov.uk/2021/03/04/patterns-and-trends-in-excess-weight-among-adults-in-england/
- 17. NHS Digital 2020 'Health Survey for England, 2019' https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019/health-survey-for-england-2019-data-tables
- 18. NHS Digital 2020 'National Child Measurement Programme, England 2019/20 School Year' https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2019-20-school-year#resources
- 19. D. Theis and M. White 2021 'Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992–2020' *Milbank Quarterly* 99(1): 126–70 https://doi.org/10.1111/1468-0009.12498
- 20. Scottish Government 2018 A Healthier Future: Scotland's Diet and Healthy Weight Delivery Plan https://www.gov.scot/publications/healthier-future-scotlands-diet-healthy-weight-delivery-plan/
- 21. Department of Health 2015 Obesity Prevention Framework and Reports https://www.health-ni.gov.uk/publications/obesity-prevention-framework-and-reports
- 22. Welsh Government 2020 Healthy Weight Healthy Wales https://gov.wales/healthy-weight-strategy-healthy-weight-healthy-wales
- 23. UK Government 2020 Tackling Obesity: Empowering Adults and Children to Live Healthier Lives https://www.gov.uk/government/publications/tackling-obesity-government-strategy/tackling-obesity-empowering-adults-and-children-to-live-healthier-lives
- 24. D. Theis and M. White 2021 'Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992–2020' *Milbank Quarterly* 99(1): 126–70 https://doi.org/10.1111/1468-0009.12498
- 25. ibid
- 26. Government Office for Science 2007 *Tackling Obesities: Future Choices Project Report* (the Foresight report) https://www.gov.uk/government/publications/reducing-obesity-future-choices
- 27. D. Theis and M. White 2021 'Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992–2020' *Milbank Quarterly* 99(1): 126–70 https://doi.org/10.1111/1468-0009.12498
- 28. UN 1966 International Covenant on Economic, Social and Cultural Rights https://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx
- 29. UN Office of the Commissioner on Human Rights 1990 Convention on the Rights of the Child https://www.ohchr.org/en/professionalinterest/pages/crc.aspx

- 30. WHO Europe 2019 Evaluating Implementation of the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/publications/2018/evaluating-implementation-of-the-who-set-of-recommendations-on-the-marketing-of-foods-and-non-alcoholic-beverages-to-children-progress, challenges-and-guidance-for-next-steps-in-the-who-european-region
- 31. M. Tatlow-Golden et al. for WHO Europe 2016 Tackling Food Marketing to Children in a Digital World: Trans-disciplinary Perspectives http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/publications/2016/tackling-food-marketing-to-children-in-a-digital-world-trans-disciplinary-perspectives-childrens-rights, evidence-of-impact, methodological-challenges, regulatory-options-and-policy-implications-for-the-who-european-region-2016
- 32. A. Garde and S. Byrne 2021 'Combatting obesogenic commercial practices through the implementation of the best interests of the child principle' in A. Garde and O. De Schutter (eds), *Ending Childhood Obesity: A Challenge at the Crossroads of International Economic and Human Rights Law*, chapter 10 (Edward Elgar Publishing).
- 33. H. Rutter 2012 'The single most important intervention to tackle obesity...' Int J Public Health 57(4): 657–8 https://pubmed.ncbi.nlm.nih. gov/22752266/
- 34. M. White et al. 2020 'What role should the commercial food system play in promoting health through better diet?' *BMJ* 368: m545 https://doi.org/10.1136/bmj.m545
- 35. P. Scheelbeek et al. 2020 'Health impacts and environmental footprints of diets that meet the Eatwell Guide recommendations: analyses of multiple UK studies' *BMJ Open* 10: e037554 https://doi.org/10.1136/bmjopen-2020-037554
- 36. Government Office for Science 2007 *Tackling Obesities: Future Choices Project Report* (the Foresight obesity report) https://www.gov.uk/government/publications/reducing-obesity-future-choices
- 37. B. Swinburn and G. Egger 2002 'Preventive strategies against weight gain and obesity' Obes Rev 3(4): 289–301 https://doi.org/10.1046/j.1467-789x.2002.00082.x
- 38. A. Power et al. 2009 Strategic Review of Health Inequalities in England Post-2010: Task Group 4: The Built Environment and Health Inequalities https://www.instituteofhealthequity.org/resources-reports/built-environment-task-group-report
- 39. S.R. Karasu 2014 'The obesities: an overview of convergent and divergent paradigms' Am J Lifestyle Med 10(2): 84–96 https://doi. org/10.1177/1559827614537773
- 40. Government Office for Science 2007 *Tackling Obesities: Future Choices Project Report* (the Foresight obesity report) https://www.gov.uk/government/publications/reducing-obesity-future-choices
- 41. S. Davies et al. 2019 UK Chief Medical Officers' Physical Activity Guidelines https://www.gov.uk/government/publications/physical-activity-quidelines-uk-chief-medical-officers-report
- 42. C.J. Caspersen et al. 1985 'Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research' *Public Health Reports* 100(2): 126–31 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1424733/
- 43. J Donnelly et al. 2009 'Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults' *Medicine & Science in Sports & Exercise* 41(2): 459–71 https://doi.org/10.1249/MSS.0b013e3181949333
- 44. J.O. Hill et al. 2012 'Energy balance and obesity' Circulation 126(1): 126–32 https://doi.org/10.1161%2FCIRCULATIONAHA.111.087213
- 45. D.A. Robson et al 2020 'Self-regulation in childhood as a predictor of future outcomes: a meta-analytic review' *Psychological Bulletin* 146(4): 324–54 https://doi.org/10.1037/bul0000227
- 46. M. Mannan et al. 2016 'Prospective associations between depression and obesity for adolescent males and females a systematic review and meta-analysis of longitudinal studies' *PloS One* 11(6): e0157240 https://doi.org/10.1371/journal.pone.0157240
- 47. MJ. Franz et al. 2007 'Weight-loss outcomes: a systematic review and meta-analysis of weight-loss clinical trials with a minimum 1-year follow-up' *J Am Diet Assoc* 107(10): 1755–67 https://doi.org/10.1016/j.jada.2007.07.017
- 48. S. Davies et al. 2019 UK Chief Medical Officers' Physical Activity Guidelines https://www.gov.uk/government/publications/physical-activity-quidelines-uk-chief-medical-officers-report
- 49. Sport England 2021 Active Lives Children and Young People Survey Academic Year 2019/20 https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2021-01/Active%20Lives%20Children%20Survey%20Academic%20Year%2019-20%20report. pdf?VersionId=4Ti_0V0m9sYy5HwQjSiJN7Xj.VinpjV6
- 50. WHO 2018 Global Action Plan on Physical Activity 2018–2030: More Active People for a Healthier World https://apps.who.int/iris/bitstream/hand le/10665/272722/9789241514187-enq.pdf
- 51. PHE 2016 Working Together to Promote Active Travel: A Briefing for Local Authorities https://www.gov.uk/government/publications/active-travel-a-briefing-for-local-authorities
- 52. WHO 2021 'Obesity and overweight' (factsheet) https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
- 53. The nutrient profiling model was developed by the Food Standards Agency (FSA) in 2004–5. The model was reviewed in 2018 to bring it into line with the latest dietary guidance, but an updated version has not been published.

2. Perceptions of health and weight: ending stigma

Our vision

A better understanding of the varied causes of obesity means that weight stigma of any kind is eliminated in all settings and becomes socially unacceptable.

Rationale for action

Beliefs about obesity: at odds with the evidence

There is one aspect of obesity on which most media articles, government reports, surveys, political debates and public engagement efforts concur: something must be done to address the UK's high and rising prevalence of obesity. This is usually where the agreement ends.

Among OHA members, health experts and academics, there is strong and consistent support for the understanding that obesity is a consequence of myriad interconnecting factors, with rising trends being more related to structural failures and social inequalities, rather than personal choice or lack of willpower.

However, there are more mixed opinions among the public, as evidenced by the OHA's insight work. People living with overweight or obesity (or who are close to someone who is) are much more likely to think of obesity as a highly complex web of related factors. Those who consider themselves as having a healthy weight tend to have a less nuanced perspective, rooted in the simplistic and flawed 'eat less, move more' narrative (albeit also recognising that some individuals face other barriers to achieving this).

'People are very quick to make a judgement. I think people just look at them and go yeah, they're fat, they're overweight, it's their own fault.'

– participant in the insight panel

This view chimes with existing wider research. A 2018 survey for Public Health England (PHE) found that although the public regard the government (72%) and the food industry (80%) as being responsible for tackling obesity, more responsibility resides with individuals and families (90%).¹

The prevailing misconception that a person's body weight is a matter of personal choice alone – that obesity is a choice that can be reversed easily and rapidly by eating less and exercising more – reinforces negative stereotypes of people living with obesity, portraying them as lazy, gluttonous and lacking willpower.²

The assumption that our body weight is totally under our voluntary control goes against scientific evidence and results in public health policies that focus entirely on personal responsibility, incorrect messaging in the media and undermines access to evidence-based treatments that would improve the health of people living with obesity. Ending weight stigma is paramount, not only from a human rights and social justice standpoint but to advance the prevention and treatment of obesity.

Professor Rachel Batterham

Weight stigma, bias and discrimination

This simplistic and erroneous understanding has damaging consequences, manifesting as weight stigma. All those interviewed about their lived experience for this report had faced stigma in many different settings and ranging from off-hand negative comments to full-blown discrimination. In England, a survey by the All-Party Parliamentary Group (APPG) on Obesity showed that 88% of people living with obesity reported being stigmatised due to their weight.³

The evidence is very clear that weight stigma damages individuals' health, compromising psychosocial wellbeing and lowering self-esteem, depressing mood and increasing metabolic risk factors. In addition, weight stigma can lead to counter-productive responses, including increased consumption of high-calorie foods and avoidance of physical activity, with the consequence that experiencing weight stigma is associated with future weight gain. The impacts of stigma are keenly felt by children and young people, and include bullying, poorer

educational outcomes,⁸ increased risk of depression, anxiety and social isolation, and decreased physical activity – and worsening obesity.⁹ It may be a commonly held view that stigma can encourage weight loss, but this is a profound misconception: the reverse is true.¹⁰

Many members of the lived experience panel convened by the OHA recounted experiences of weight stigma in healthcare settings, and the APPG on Obesity's 2018 survey found that only a quarter of people living with obesity felt that they were treated with dignity and respect when seeking advice or treatment related to their weight. When health professionals hold stigmatising views, this can impact the support and care received by patients and may result in people with obesity being even more reluctant to seek medical care (for obesity or any other condition), which can lead to further negative health outcomes.

Evidence shows that people with obesity respond positively to discussions about weight and health related behaviours that are supportive and empathetic.¹⁴ Research suggests that educating healthcare professionals about the causes of obesity, including a focus on the genetic and social determinants, can help to reduce weight stigma.¹⁵ Equipping health professionals

with the communication skills to discuss obesity and disordered eating in a compassionate and non-judgemental way can help to ensure that consultations are constructive and beneficial. However, it is likely that the huge pressures currently being felt by GP practices can act as an additional barrier to constructive conversation about healthy weight, despite the best intentions of health professionals.

Weight bias in health settings is compounded by health facilities with inadequate provision for people living with obesity: research has highlighted patient experiences of the embarrassment of being unable to sit in the chairs provided, of inappropriately sized gowns, and of equipment such as blood-pressure cuffs and speculums being too small.¹⁶

A recent UK study found that around half of people living with obesity waited more than six years after starting to struggle with their weight before having a discussion with a health professional, compared with around three years in other higher-income countries. The study's authors concluded that reducing the delay, by addressing the broader narrative around personal responsibility and encouraging people to seek treatment, could help prevent the development of comorbidities.¹⁷

Explicit and implicit weight bias

Implicit weight bias refers to unconscious negative beliefs and attitudes towards people living with overweight and obesity. Explicit weight bias is when these negative beliefs are consciously held. Bias manifests itself in stigma and discrimination against people with overweight and obesity.¹⁸

Stigma also drives discrimination in the workplace. 'Good work' (work that is 'healthy, safe and offer[s] the individual some influence over how work is done and a sense of self-worth'¹⁹) is linked with improved health and wellbeing outcomes,²⁰ and people with obesity should be able to benefit fully from work opportunities. However, people living with obesity are often perceived as having lower competence and fewer leadership qualities. They are less likely to be employed and are on lower salaries compared to employees with a weight in the healthy range.²¹

The media plays a key role in perpetuating stigma. Media portrayals too often focus on individual responsibility, blaming individuals and parents (in the case of childhood obesity), rather than acknowledging the multiple drivers of the condition. The accompanying imagery often actively dehumanises people with obesity, portraying them from behind, headless, or acting in ways that

suggest that they are deliberately fuelling their condition (such as sitting on a sofa or eating a burger).²² Over two-thirds of images accompanying media reports related to weight are stigmatising in this way, and experimental studies show that viewing these types of images leads to increased weight bias, regardless of the gender or race of the individual portrayed in the image.²³ There is an urgent need for media outlets to do more to eradicate the damaging reporting of obesity-related news with language or images that perpetuate stigma (such as the use of stereotypes or making jokes at the expense of people with obesity), including using existing media guidelines and respectful imagery available from the many existing image banks.

Explicit and implicit weight bias (box 5) has far-reaching negative impacts on the everyday lives of people with obesity – and these prevailing attitudes also influence

public policy. When the public, policymakers and the media believe that obesity is caused by greed and lack of willpower, they are more likely to think it can be addressed by policies that target only the individual, with policies that try to make whole-of-society changes being seen as unfairly restrictive. This can lead to people living with obesity then being blamed for policies that are regarded as overly restrictive, as insight work showed.

'I wouldn't expect to pay £20 for two pizzas now, because the government are trying to tackle obesity. It's penalising people that don't have any issues with their weight'

– participant in the insight panel

Government interventions focusing on individual lifestyles are both reflective of and reinforce the assumption that obesity is within the control of people living with obesity – which in turn drives further stigma. It is time to break this cycle.

Public support for change

The insight work tested some of the recommendations outlined in this report, and found a consistently high awareness of the food industry's role in driving poor dietary health, with concerns raised about where we live, learn, work and play being flooded with unhealthy food:

'If you look out my window, there's only one generally healthy place to eat and that's Subway, whereas if you look down the road there's about four carry-outs, four takeaways. There's like all these unhealthy places, all in a row, so you've got more options and it's actually cheaper to eat unhealthy foods than it is to eat healthy foods'

- participant in the insight panel

'They [the food industry] will do little as they have to maximise their profits and you can't blame them... but yeah, definitely they need to be pushed in a better, in a more positive, way'

- participant in the insight panel

This translated into support for the many interventions that can address the food environment, including controls on marketing of unhealthy food, strong school-food standards and clear nutrition labelling. There was also support for making healthy food cheaper and more accessible.

Concerns about the government 'interfering' or mentions of the so called 'nanny-state' were not raised during the interviews: the libertarian narrative seen in the media was not reflected in the interviewees' responses.

The Covid-19 pandemic has led to greater public acceptance of government intervention to improve health. Polling by the Health Foundation in mid-2020 revealed that nearly 9 in 10 people (86%) believed the national government has a 'great deal' or 'fair amount' of responsibility in ensuring that people generally stay healthy, a significant rise from 61% in 2018.²⁴ On obesity specifically, a 2020 OHA survey found that 74% of people support a renewed drive from government to address obesity, with 70% agreeing that the link between obesity and more severe Covid-19 outcomes mean that obesity should be (even) more of a priority.²⁵ This is a sharp increase on previous polling in 2015, when only a third of the UK public attributed responsibility for obesity to the government.²⁶

This points to a growing opportunity for the UK Government to build on their existing direction of travel, taking forward bold new policies that will truly create a healthier environment for everyone, of every weight. There has never been a better time to take concerted and long-lasting action.

Action needed to reach the vision

Urgent action is needed across all areas discussed in this chapter:

- Better public understanding of the complexities and multiple drivers of obesity must be fostered, including how shifting responsibility away from the individual to wider societal action can create the right conditions for evidence-informed policies needed to improve population health. This improved understanding will also help to reduce the explicit and implicit bias that causes physical and mental harm to so many people currently living with obesity.
- The UK Government must lead by example in addressing weight bias and stigma, reframing obesity as an issue of collective rather than personal responsibility. The language in government campaigns, speeches and policy documents must be reflective of the complexities of obesity and always use person-first language. Campaigns should focus on health-promoting behaviours, rather than solely on weight loss. People with lived experience of obesity should be involved throughout all relevant policy/ campaign-development processes.
- As a matter of urgency, weight stigma and discrimination must be eliminated in healthcare settings. Training on weight stigma should be integrated into undergraduate / trainee curricula to address stigma early on, and should include empathy interventions, which have been shown to have a small positive impact on reducing stigma.²⁷ This requires professional bodies and Health Education England (HEE) to update their curricula and training standards,

- coupled with training offered to all clinical staff on the damage of stigma and how best to discuss weight and health.
- In addition to being welcoming and staffed by nonstigmatising health professionals, healthcare settings must be physically suitable for people living with obesity. It may not be feasible for all healthcare settings to make immediate changes to accommodate bodies of all sizes, but healthcare providers should urgently review the suitability of their settings for people with obesity and make changes to make them more inclusive.
- Stigma is evident at every stage of the employment cycle and there is little legislative protection for most people living with obesity who experience discrimination in recruitment or in the workplace.²⁸
 More clarity is required to help employers understand that obesity-related conditions are in scope of discrimination legislation and that there are legal duties incumbent upon them. Obesity is not currently explicitly recognised as a protected characteristic in the UK Equality Act, but consideration should also be given to policies specifically to prohibit obesity discrimination in the workplace.
- While there is a large body of evidence on the impact of stigma, there is far less exploring effective approaches to reduce stigma. There is a need for further research to inform future effective interventions to eliminate weight stigma and discrimination. This includes further research into the impact of classifying obesity as a disease (box 6).

Obesity as a disease

There is growing interest from many quarters to recognise obesity as a chronic, progressing and relapsing disease in its own right,²⁹ with suggestions this recognition may potentially increase access to treatment and reduce stigma towards people living with obesity. The Royal College of Physicians has suggested that this recognition would 'allow the creation of formal healthcare policies to improve care both in doctors' surgeries and hospital'.³⁰

However, there is currently limited empirical evidence about the potential impact that this could have on stigmatising attitudes towards people living with obesity, and there is a need for further research to inform this debate.

Recommendations

Responsibility

Ensure that government communications and campaigns do not perpetuate weight stigma and policies and strategies relating to healthy weight actively refute stigma.

All government departments



Health and care professionals should receive comprehensive training in discussing weight and disordered eating with confidence, in a sensitive and non-stigmatising way and be able to assist patients to access appropriate services.

Professional institutes, NHS Trusts and health providers

This can be achieved in the following ways:

- Education and training curricula for all health and care professionals should include a) an understanding of the complexities of obesity and b) the implications of weight stigma in healthcare environments.
- Health and care providers should encourage all clinical staff to complete appropriate training on the damage of stigma and how to discuss weight and health appropriately with patients.



Ensure that healthcare environments are size-inclusive where feasible, with provision of suitable equipment for people with obesity.

NHS Trusts & other health providers



Provide greater clarity on the legal responsibility of employers not to discriminate against employees based on their weight. This should include consideration of policies that would specifically prohibit obesity discrimination in the workplace.

GEO



Undertake research into how to reduce obesity stigma in all settings.

Research funders



References

- 1. Ipsos Mori 2018 *Public Health England Calorie Reduction Programme: Public Perceptions and Awareness* https://www.ipsos.com/sites/default/files/ct/publication/documents/2019-02/ipsos_mori_phe_calorie_reduction_summary_public_v5.pdf
- 2. Nesta 2021 Changing Minds about Changing Behaviour: Obesity in Focus https://media.nesta.org.uk/documents/changing-minds_about_changing_behaviours Xi5X9RC.pdf
- 3. APPG on Obesity 2018 *The Current Landscape of Obesity Services* https://obesityappg.com/inquiries and J.M. Hunger and B. Major 2015 'Weight stigma mediates the association between BMI and self-reported health' *Health Psychol* 34(2): 172–5 https://doi.org/10.1037/hea0000106
- 4. M.E. Eisenberg et al. 2006 'Weight-teasing and emotional well-being in adolescents: longitudinal findings from Project EAT' *J Adolesc Health* 38(6): 675–83 https://doi.org/10.1016/j.jadohealth.2005.07.002
- 5. N.A. Schvey et al. 2011 'The impact of weight stigma on caloric consumption' Obesity 19(10): 1957–62 https://doi.org/10.1038/oby.2011.204
- 6. L.R. Vartanian and S.A. Novak 2011 'Internalized societal attitudes moderate the impact of weight stigma on avoidance of exercise' *Obesity* 19(4): 757–62 https://doi.org/10.1038/oby.2010.234
- 7. R. Puhl and Y. Suh 2015 'Stigma and eating and weight disorders' *Current Psychiatry Reports* 17(3):10 https://doi.org/10.1007/s11920-015-0552-6; J.M. Hunger and A.J. Tomiyama 2014 'Weight labeling and obesity: a longitudinal study of girls aged 10 to 19 years' *JAMA Pediatrics* 168(6): 579–80 https://doi.org/10.1001/jamapediatrics.2014.122 and S.E. Jackson et al. 2014 'Perceived weight discrimination and changes in weight, waist circumference, and weight status' *Obesity* 22(12): 2485–8 https://doi.org/10.1002/oby.20891
- 8. WHO 2016 Report of the Commission on Ending Childhood Obesity https://apps.who.int/iris/bitstream/handle/10665/259349/WHO-NMH-PND-ECHO-17.1-enq.pdf
- 9. R.M. Puhl and J.D. Latner 2007 'Stigma, obesity, and the health of the nation's children' *Psychol Bull* 133(4): 557–80 https://doi.org/10.1037/0033-2909.133.4.557, C. Greenleaf et al. 2014 'Relationship of weight-based teasing and adolescents' psychological well-being and physical health' *J Sch Health* 84(1): 49–55 https://doi.org/10.1111/josh.12118 and S.J. Pont et al. 2017 'Stigma experienced by children and adolescents with obesity' *Pediatrics* 140(6): e20173034 https://doi.org/10.1542/peds.2017-3034
- 10. AJ. Tomiyama et al. 2018 'How and why weight stigma drives the obesity "epidemic" and harms health' *BMC Medicine* 16(1): 123 https://doi. org/10.1186/s12916-018-1116-5 and B. Major et al. 2014 'The ironic effects of weight stigma' *Journal of Experimental Social Psychology* 51: 74–80 https://doi.org/10.1016/j.jesp.2013.11.009
- 11. APPG on Obesity 2018 The Current Landscape of Obesity Services https://obesityappg.com/inquiries
- 12. M.R Hebl and J. Xu 2001 'Weighing the care: physicians' reactions to the size of a patient' Int J Obes Relat Metab Disord 25(8): 1246–52 https://doi.org/10.1038/sj.ijo.0801681
- 13. R. Puhl et al. 2013 'Motivating or stigmatizing? Public perceptions of weight-related language used by health providers' *International Journal of Obesity* 37(4): 612–19 https://doi.org/10.1038/ijo.2012.110
- 14. C. Albury et al. 2020 'The importance of language in engagement between health-care professionals and people living with obesity: a joint consensus statement' *The Lancet Diabetes & Endocrinology* 8(5): 447–55 https://doi.org/10.1016/S2213-8587(20)30102-9 and L.E. Hayward et al. 2020 'Discussing weight with patients with overweight: supportive (not stigmatizing) conversations increase compliance intentions and health motivation' *Stigma and Health* 5(1): 53–68 https://doi.org/10.1037/sah0000173
- 15. P.C. Diedrichs and F.K. Barlow FK 2011 'How to lose weight bias fast! Evaluating a brief anti-weight bias intervention' *Br J Health Psychol.* 16(4): 846–61 https://doi.org/10.1111/j.2044-8287.2011.02022.x, K.S. O'Brien et al. 2010 'Reducing anti-fat prejudice in preservice health students: a randomized trial' *Obesity* 18(11): 2138–44 https://doi.org/10.1038/oby.2010.79 and S. Persky and C.P. Eccleston 2011 'Impact of genetic causal information on medical students' clinical encounters with an obese virtual patient: health promotion and social stigma' *Annals of Behavioral Medicine* 41(3): 363–72 https://doi.org/10.1007/s12160-010-9242-0
- 16. E. Merrill and J. Grassley 2008 'Women's stories of their experiences as overweight patients' J Adv Nurs 64(2): 139–46 https://doi.org/10.1111/j.1365-2648.2008.04794.x
- 17. C.A. Hughes et al. 2021 'Changing the narrative around obesity in the UK: a survey of people with obesity and healthcare professionals from the ACTION-IO study' *BMJ Open* 11: e045616 https://doi.org/10.1136/bmjopen-2020-045616
- 18. R.L. Pearl 2018 'Weight bias and stigma: public health implications and structural solutions' Social Issues and Policy Review 12(1): 146–82 https://doi.org/10.1111/sipr.12043
- 19. The Stationery Office 2008 Dame Carol Black's Review of the Health of Britain's Working Age Population: Working for a Healthier Tomorrow https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/209782/hwwb-working-for-a-healthier-tomorrow.pdf
- 20. ibid.
- 21. S.W. Flint and J. Snook 2014 'Obesity and discrimination: the next "big issue"? *International Journal of Discrimination and the Law* 14(3): 183–93 https://doi.org/10.1177/1358229114534550
- 22. S.W. Flint et al. 2016 'The portrayal of obesity in U.K. national newspapers' Stigma and Health 1(1): 16-28 https://doi.org/10.1037/sah0000013
- 23. R.M. Puhl et al. 2013 'The stigmatizing effect of visual media portrayals of obese persons on public attitudes: does race or gender matter?' *J Health Commun* 18(7): 805–26 https://doi.org/10.1080/10810730.2012.757393
- 24. The Health Foundation 2020 'Five things we learnt from our polling on public perceptions during COVID-19' (25 June) https://www.health.org. uk/news-and-comment/charts-and-infographics/five-things-we-learnt-from-our-polling-on-public-perceptions
- 25. OHA 2020 '74% of the public support Government action on obesity in the wake of emerging links with COVID-19' (3 July) http://obesityhealthalliance.org.uk/2020/06/03/74-of-the-public-support-government-action-on-obesity-in-the-wake-of-emerging-links-with-covid-19/

- 26. J. Curtice (for NatCen) 2015 Attitudes to Obesity: Findings from the 2015 British Social Attitudes Survey https://www.bsa.natcen.ac.uk/media/39132/attitudes-to-obesity.pdf
- 27. See, for example, R.F. Kushner et al. 2014 'An obesity educational intervention for medical students addressing weight bias and communication skills using standardized patients' *BMC Medical Education* 14(1): 53 https://doi.org/10.1186/1472-6920-14-53 and K. Matharu et al. 2014 'Reducing obesity prejudice in medical education' *Education for Health* 27(3): 231–7 https://doi.org/10.4103/1357-6283.152176
- 28. S.W. Flint and J. Snook 2015 'Disability discrimination and obesity: the big questions?' *Current Obesity Reports* 4(4): 504–9 https://doi.org/10.1007/s13679-015-0182-7
- 29. For example, G.A. Bray et al. on behalf of the World Obesity Federation (2017) 'Obesity: a chronic relapsing progressive disease process. A position statement of the World Obesity Federation' *Obesity Reviews* 18(7) 715–23 https://doi.org/10.1111/obr.12551
- 30. Royal College of Physicians 2019 'RCP calls for obesity to be recognised as a disease' (press release, 3 January) https://www.rcplondon.ac.uk/news/rcp-calls-obesity-be-recognised-disease

3. How the market shapes food environments, and what needs to change to promote healthier weight

An analysis by Professor Martin White

In the second quarter of the 20th century, the beginnings of the commercial food system that we know today emerged with a key goal: to eradicate hunger and ensure an adequate food supply for all. Its aim was to increase agricultural efficiency and productivity, providing sufficient, highly palatable calories to feed growing populations and fuel economic development. By the 1960s, this industrial agricultural machine was in full swing, resulting in irreversible changes in agricultural landscapes to drive efficiency, with larger fields, more intensive practices, and higher yields. It was also accompanied by a revolution in food retailing, heralded by the rise of the supermarket. In many countries, employment patterns changed, with more women entering the workplace – and the commercial food system responded by focusing ever more on convenience.1

But with the demand for more convenient foods came the need for processing. Food processing not only turns raw ingredients into tasty, ready-to-eat foods, it also adds value, as food manufacturers were quick to realise. Why sell flour, when you can sell bread? Why sell bread, when you can sell sandwiches? And biscuits and cakes and breakfast bars? Why sell potatoes, when you can sell crisps in a tempting array of flavours? And all for a hugely greater price per gram.

Consumers' growing preferences for these new, processed foods were guaranteed by two things.

First, palatability. Who does not love the salty, oily taste of a french fry or potato crisp? Who can resist the sweet and unctuous mouthfeel of a chocolate wafer bar? Modern convenience foods are highly palatable, responding to evolutionary taste preferences, honed by human genetics in times of food scarcity, making us desire and consume foods that are sweet, fatty and salty.²

Secondly, marketing. Marketing is 'the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.' It is the core of every business, creating the proposition that results in what consumers consider to be a worthwhile exchange: money for goods or services. Marketing has one purpose: to increase demand. Companies use marketing to create new

markets for things we didn't know we wanted. Sometimes these are of huge benefit to society, sometimes less so - and it can be difficult to know, at the outset, which will be which.

The 'marketing mix' has been a cornerstone of marketing since the 1960s and refers to the uniquely beneficial combination of product, price, placement and promotion ('the 4 Ps') that yield the highest return on investment for a company. Product refers to all aspects of the food and its packaging; price refers to the recommended retail price and discount strategies (offers); placement refers to where the product is made available or promoted, on various media or at different store locations; and promotion refers to all communications related to the product, but most specifically to the brand identity (name, images, straplines) and all advertising content, as well as other corporate communications intended to boost the brand. This is a sophisticated, strategic way of working that has proved hugely successful economically.

Like all complex adaptive systems, the commercial food system is constantly evolving, responding to external stimuli, including competition, prevailing economic conditions, regulation and social change. This works within the parameters of a particular economic model with a particular set of rules. For the largest companies, with influential shareholders, there are demands to be met if a company is to survive – such as continual growth.⁵ Such growth cannot be achieved without increasing sales or acquisitions of beneficial assets, such as additional companies with their own rapid growth trajectory – and this constant striving for growth comes at a cost. The processed food industry - together with its essential suppliers (e.g. commodity producers) and customers (e.g. retailers) – is now locked into this growth cycle.⁶ And the only way to continually grow is to pursue a marketing strategy that sells more and more added-value, highly processed foods – with impacts for the planet and for people.

The gradual evolution of the current commercial processed food system and the economic model on which it is based, despite starting out with the best of intentions – supporting national economic, employment, growth and food strategies, and responding to social change – has now become a problem. It is a problem because it



creates demand for products that people do not really need, leading to consumption of foods that are too energy dense and nutrient poor, often in excessive portion sizes. This makes our current, obesogenic food environment not just a public health and equity issue, but also a human rights issue. People, especially children, have a right to live in an environment that is health promoting, rather than one that causes them to be unhealthy.

Excessive consumption of these highly processed food products, stimulated by promotional marketing, leads to excess body weight and associated diseases, as well as social, economic and healthcare consequences. **This is a significant market failure, which needs correcting with government intervention.**⁷ The consequences of this market failure are known as external costs or externalities and include not only obesity and its diverse healthcare costs and economic impacts but also parallel adverse impacts, such as those affecting biodiversity, animal welfare and climate

change. The co-occurrence of these adverse outcomes from the same root cause means that they are 'syndemic'.8

To make a real impact on obesity after 30 years of failed strategies, the UK Government need to exert pressure on multiple and powerful levers for change in the commercial food system, by implementing evidence-informed policies to address these, such as regulatory and fiscal measures. In this strategy, the OHA is recommending that these actions should focus simultaneously on all four Ps, so as to provide a significant stimulus for system change towards healthier foods.

To this end, the next four chapters take a broader look at and analyse the roles of product, price, promotion and place, making recommendations for a range of policies that use these levers to facilitate healthy weight as well as address the specific elements of the marketing mix used by the food system.

References

- 1. T. Lang and M. Heasman 2016 Food Wars (London: Routledge) and H. Dimbleby 2021 The National Food Strategy Independent Review: The Plan, p. 290 https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National-Food-Strategy-The-Plan.pdf
- 2. P.A.S. Breslin 2013 'An evolutionary perspective on food and human taste' *Current Biology* 23(9): R409–18 https://doi.org/10.1016/j. cub.2013.04.010
- 3. American Marketing Association 2017 'Definitions of marketing' https://www.ama.org/the-definition-of-marketing-what-is-marketing/
- 4. M. White et al. 2020 'What role should the commercial food system play in promoting health through better diet?' *BMJ* 368: m545 https://doi.org/10.1136/bmj.m545
- 5. ibid.
- 6. H. Dimbleby 2021 *The National Food Strategy Independent Review: The Plan* https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National-Food-Strategy-The-Plan.pdf
- 7. ibid
- 8. B.A. Swinburn et al. 2019 'The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission Report' *The Lancet* 393(10173): 791-846 https://doi.org/10.1016/s0140-6736(18)32822-8



4. Healthier food and drink

This chapter discusses the strategies used by food companies to create appealing products and packaging and opportunities to shift products towards healthier options.

Our vision

The readily available food and drinks are healthier as well as enjoyable and tasty, with appropriate portion sizes, and with clear nutritional information both on product packaging and on food eaten out of the home.

Rationale for action

In the UK, many of us consume more energy than we need every day, which is a key driver in weight gain: estimates suggest that, on average, adults consume approximately 195 excess calories per day, and adults with overweight and obesity consume approximately 320 excess calories per day.¹ Foods that particularly contribute to excess energy intake tend to be commercially produced processed foods with high energy density – usually high in fats and/or refined carbohydrates, especially free sugars² – and limited nutrients needed for health. The evidence is growing that highly processed foods are also independently associated with obesity.³ Many red meats are also known to be high in unhealthy saturated fats and are associated with greater risk of non-communicable diseases (NCDs),4 and sugar intake can also affect dental health. A diet that instead prioritises fruits, vegetables, legumes, nuts, seeds and whole grains is key both to moderating energy intake and to the sustainability of the food system.5

People make countless decisions about what to eat and drink every day. The majority of these decisions

are unconscious and are heavily influenced by external factors, such as the kind of foods (i.e. 'the products') that are readily available: food environments that provide abundant access to cheap and readily available food are often referred to as 'obesogenic'. Economically disadvantaged people tend to make these decisions more consciously, because cost and risk of waste are even more central to, and constrain, their decision-making processes.

Policies that make healthier products the default option by changing whole categories of food and drink products can make it easier for people to reduce their sugar, fat or overall calorie intake. This can be supported by more appropriate (generally smaller) portion sizes and clear nutritional labelling, which help to signpost healthier and less healthy options. Taken together, and in conjunction with policies to make healthy food more accessible and affordable, these seemingly small, incremental policy changes can add up over time, with the potential to impact population-level consumption of unhealthy food and drink.

The out-of-home food environment

The out-of-home (OOH) food sector refers to outlets where food and drink is prepared for immediate consumption, either on the premises (such as restaurants, cafés and pubs) or to be consumed elsewhere (such as takeaway outlets or food delivery services), and the food available at these outlets.

The OOH food sector has grown rapidly in recent years. By 2018, around a quarter of calories in the UK were consumed out of the home, including in cafés, restaurants, takeaways and canteens: 15% of adults reported for this 2018 research that they had used an online food delivery service in the previous week. 10

Covid-19 led to an initial contraction in the OOH sector as a whole, but fast-food (quick-service) restaurants grew in 2020, building on the significant expansion of food delivery services (aggregators) during the pandemic:¹¹ over 40% of the value of fast-food restaurants came from deliveries in 2020.¹² This shift to food delivery is also a trend that is likely to continue, with over half of consumers (who between them account for 80% of delivery spend) reporting in October 2020 that they would continue to use food delivery services to the same extent.¹³

The growth of online food delivery services (such as JustEat, Deliveroo and UberEats) has changed the way food is ordered. Multiple types of food can be ordered via these services, which have expanded beyond traditional dinner delivery to include breakfast, lunch, snacks and groceries. A recent survey of young people found 54% reported ordering unhealthy food online at least once a week. Online food delivery services supplement other modes of order: they do not replace the opportunity to purchase food prepared out of home in other ways and may lead to increased purchase of food that is energy dense and nutrient poor.

A recent study has shown that access to food outlets through online delivery services is greatest in the most deprived areas of England (reflecting patterns seen in physical food outlets discussed in chapter 6), and that the percentage of food outlets registered to accept orders through the leading online food delivery service in the UK increases with deprivation.¹⁵

Research suggests that fast-food advertising dominates other types of food and drink advertising. An analysis of outdoor advertising in two English authorities found one single fast-food outlet was responsible for 62.7% of all food and drink advertising.

Portion size in the OOH sector is often larger than portions sold in retailers¹⁸ and, in addition, the food largely available tends to be higher in calories, fat and salt, and is generally less healthy than food prepared at home. ¹⁹ Research suggests that eating out accounts for 20-25% of adult energy intake, ²⁰ and that when someone dines out or eats a takeaway meal they consume, on average, 200 more calories per day than if they eat food prepared at home. ²¹ Hence, a growth in eating out is likely to be associated with weight gain.

The OOH sector as a whole has aggressive expansion plans for the future with Deliveroo rolling out its service to 100 new towns in the UK and Domino's and McDonald's announcing plans for new outlets.²²

Recommendations for policies targeting the OOH sector span multiple areas and are discussed in this chapter, chapter 5 (Fiscal levers for health), chapter 6 (The environment around us) and chapter 7 (Advertising and promotions).

Reformulation

Reformulation of food and drink products usually takes place through gradual, unobtrusive change to recipes, for example to improve the taste and appeal of products or, more recently, in response to targets set to reduce calories and nutrients such as sugar and salt. Evidence from modelling studies suggests that, when people continue to buy and eat products that have been reformulated,²³ the larger the improvement in food composition, the more significant the impact on nutrients and calories purchased and consumed²⁴ – suggesting that people do not compensate by eating more.

Reformulation can contribute to a suite of measures that aim to reduce the risk of diet-related NCDs and obesity,²⁵ but it has clear limits. In some food categories there are products that can only be adjusted so far to become marginally 'healthier' rather than 'healthy', because of the contribution of fat, sugar and salt to the texture, taste, bulk and technical cooking requirements of food. Interventions that address a wide range of processed products, rather than just a subset of products, are likely to be most successful.²⁶ Reformulation can have some impact on population diet by improving the nutritional composition of food and drinks, but on its own will not shift population diets to those containing fewer processed products and more fresh foods overall.

There are several reformulation programmes ongoing in the UK, aimed at improving population diets):

- Sugar reduction programme: Running from 2016 from 2020 (with a final report due in 2021), targets were set to reduce sugar by 20% in 10 categories of food that contribute the most to children's sugar intakes. (See box 8 for the limited impact of the programme to date.) Participation is voluntary.
- Calorie reduction programme: Running from 2020 to 2024, targets were set to reduce calories in the foods that contribute the most to excess calorie intakes.
 Targets for a reduction of between 5% and 20% have been set for different categories for retailers and the out-of-home (OOH) sector, along with a maximum guideline for products likely to be consumed in a single occasion (calories per portion) across all categories.
 Participation is voluntary.
- Salt reduction programme: A voluntary programme to reduce salt was first introduced in 2006, with incremental targets.; The salt reduction target saw initial success with large reductions across entire categories: average salt consumption fell 15% from 9.1g to 8.4g a day between 2000 and 2011. However, more recent progress has been limited, leaving consumption 40% above the recommended 6g a day.²⁷ Updated targets were published in 2020 with the ambition to further reduce population salt intakes to 7g per day.²⁸
- The Soft Drinks Industry Levy (SDIL): Implemented in April 2018, the SDIL applies a tiered tax on soft drinks with 5g or more of sugar per 100ml. It aims to encourage manufacturers to reduce the sugar content of their drinks through voluntary reformulation (see box 8).

The success of regulated versus voluntary approaches

The concept of using voluntary approaches to encourage industry action is not new. In 2011, the UK Government established the Public Health Responsibility Deal, which encouraged businesses to make pledges 'to improve public health and tackle health inequalities through their influence over food, alcohol, physical activity and health in the workplace'.²⁹ However, independent evaluation has shown this to have failed in its aim to improve health.³⁰

In 2016, PHE set a voluntary sugar reduction target of a 20% reduction in sales-weighted averages of sugar by 2020 (from a baseline of 2015) across nine categories – but to date this has led to just a 3% reduction overall, with some categories such as cereal and yoghurts making good progress, while others such as confectionery and puddings making minimal progress and even seeing increases in sales-weighted averages.³¹ In addition, sales of sugar increased overall during the programme, driven largely by a 16.3% increase in tonnes of sugar sold from chocolate confectionery and 7.2% from sweet confectionery. This highlights the impact of marketing practices that undermine any voluntary reformulation efforts and demonstrates how the system adapts.

In contrast, the mandatory 2018 SDIL has shown that regulatory levers can be highly effective. By February 2019, only 15% of soft drinks were liable for the levy, compared to 52% before its announcement in 2015.³² This equates to a fall in average sugar content in soft drinks of 29%.^{33,34} The SDIL and other fiscal levers are also discussed in chapter 5.

Portion size

There is strong evidence of a portion-size effect when it comes to what we eat: many of us eat more when served a larger portion, implicitly accepting that the portion served is of an appropriate size,³⁵ and, over the years, larger portion sizes have become normalised in the UK.³⁶ Exposure to large portion sizes of unhealthy food is associated with increased energy intake across a variety of food types and among different populations. Often, the amount of food that is inappropriately marketed as a single portion could lead to unknowing over-consumption by individuals, and a lack of clarity on packaging as to what constitutes a 'portion' (for example, the whole product or just a proportion of it) can also lead to overconsumption. The calorie content of food sold in the OOH sector is substantially larger than the food bought in retailers:³⁷ for example, a margarita pizza sold in a popular restaurant chain contains 834 calories, whereas the same brand's retail version has 608 calories.38

Small price differentials between portion sizes can make large portions more attractive. There is evidence that businesses can profit by pricing regular portion sizes sufficiently high and large portions relatively low, to nudge price-conscious consumers towards purchasing larger portions.³⁹

Policies can work to readjust public expectations of how large a portion should be downwards over time – just as, over time, expectations have ratcheted up:⁴⁰ reducing the size, availability and appeal of larger portions/packages of food can contribute to reductions in the quantity of food selected and eaten in the immediate and short term.⁴¹ Portion size is also relatively easy for food producers to

change, and policy in this area is a mechanism through which companies can adapt to regulation without financial risk, since small and gradual decreases in portion size saves material (input) costs overall.⁴²

This type of intervention could also be popular with customers. A recent study showed that promoting smaller portion sizes in food outlets was acceptable to food-outlet owners and rarely recognised by consumers. A Food Standards Agency Scotland consultation on the OOH sector found 73% of respondents were in favour of reduced portion sizes and 95% wanted smaller or half portions to be available.

A systematic review of randomised controlled trials examining the impact of package, portion size and even tableware shows that exposure to larger portions of food consistently increases the quantity consumed by both adults and children. It suggests that if food portions, packaging and tableware were made consistently smaller, the reduction in daily energy consumed could be between 8.5–13.5% (144–228kcal daily).⁴⁵ Reduction in meal size in food outlets may be effective in reducing energy intake,⁴⁶ and providing smaller portions as the default is likely also to be of benefit in commercial environments such as restaurants.⁴⁷

'I'll think "50p more for more fries – that's a good deal!" And then I'll buy it and I'll finish it because I paid for it. I didn't want to finish it because my stomach hurts, but I'll finish it and I don't know why I do it'

- participant in the youth panel

Labelling and packaging

Labelling on food packaging is an important aspect of the product that is presented to us as consumers and impacts what we buy and eat across a range of settings.

There is good evidence to show that nutrition labelling can improve knowledge and encourage healthier purchasing at the point-of-sale. It is also associated with reformulation of products because manufacturers want to avoid unhealthy labelling (such as red traffic-light symbols) and to be able to market their products as being 'better-for-you', leading to greater availability of healthier foods. 49 Labelling can be on packaging (both front-of-pack labelling such as the multiple traffic light system and back-of-pack detailed labelling of nutrients), on websites and on menus for food eaten out-of-home. 50

'Interpretive' labelling uses nutrient profiling to assess the healthiness of the product, based either on individual nutrients (such as the traffic light system or the 'warning labels' recently introduced in Chile⁵¹) or as a single combined indicator of product (un)healthiness (such as Nutri-Score, used by several European countries). It may also be beneficial for front-of-pack labelling to include interpretative aids, such as colours and symbols, to improve the effectiveness of the labelling and help consumers select healthier products.⁵²

 Experimental studies of front-of-pack labelling show that it can significantly reduce the density of sugar and salt in purchases and also result in decreases in energy and fat content.⁵³ A study of individual purchase

- data in the UK found that people bought products with fewer calories after the introduction of the traffic light labelling scheme, with a 9.5% reduction in calories purchased across biscuits, breakfast cereals and soft drinks.⁵⁴ Early evidence from the warning labels in Chile also suggests a decrease in consumption of some unhealthy products.⁵⁵
- In the UK, a colour-coded front-of-pack label scheme is currently used. In 2020 the UK Government held a consultation to gather views and evidence to help to inform any future improvements to the UK's labelling scheme, but is yet to publish a response. This scheme is currently voluntary and is used on around twothirds of pre-packaged products,⁵⁶ although robust evidence of compliance is lacking.
- The existing labelling scheme requires the labels to report on total sugars content, rather than free sugar content. Total sugars includes those naturally occurring as well as those added. There is little evidence that sugars naturally found within the cell structure of fruits and vegetables (or lactose found in milk and milk products) have adverse health effects, whereas free sugars are considered more problematic for dietary and dental health - both because it is easier to consume higher amounts (for example, drinking fruit juice rather than eating an orange) and because the sugar may be absorbed quicker, leading to weight gain. Public health guidelines recommend upper limits for free sugar consumption, which are much lower than reference amounts for total sugars. This makes labelling misleading: for example, a can of brand-leading cola currently shows that it contains 39% of daily recommended total sugar intake but if the label had to reflect free sugars content, it would have to state that it contains 117% of the daily recommended intake of free sugars for those aged 11 or over.
- labelling (calories) on menus could, for an average meal of 600kcal, reduce the calories bought by about 8% (equivalent to about 50kcal).⁵⁷ In addition, the products of companies that include calorie labelling on menu items have consistently less fat and salt overall,⁵⁸ and research also suggests that food outlets whose menus are labelled offer significantly healthier products, indicating that calorie labelling could work through encouraging food companies to develop healthier products.⁵⁹ However, concerns have been raised by eating disorder groups and specialists that calorie labelling on menus may be harmful to those with, or recovering from, an eating disorder.
- Alcoholic drinks are high in calories but otherwise have no nutritional value. However, sugary alcoholic drinks, such as pre-mixed spirits, are particularly calorific because they contain high levels of sugar. 60 Although the alcohol content must be stated on packaging and on menus, there is no equivalent requirement for the calorie or sugar content. There is limited evidence exploring the impact of nutritional labelling on alcohol products on individuals' purchasing and consumption patterns, but the evidence suggests that interpretative nutritional labelling is associated with healthier purchasing and consumption by individuals. Implementing front-of-pack labelling on alcohol products to demonstrate the high sugar and calorie content could contribute to improved dietary preferences. It could also encourage a shift to lower-alcohol options, with research suggesting that calorie labelling on the front label could result in an almost 10% shift in purchasing decisions from the highest alcohol drinks to the lowest.61 There is consumer support for this approach, with over 60% of the public wanting calories included on labelling on alcohol.62

Packaging

Research shows that children as young as three show a preference for branded foods over identical, unbranded products. ⁶³ Cartoon imagery on packaging is one of the most frequently used ways to market to children, including licensed TV, book and film characters (such as Peppa Pig and Minions) and unlicensed characters created by the manufacturers themselves (such as the Coco Pops Monkey, Frosties' Tony the Tiger or Percy Pig). A recent survey found 51% of 532 food and drink products that use cartoon animations on their packaging to appeal to children are high in fat, saturated fats, sugar and salt. ⁶⁴ Sports stars and other celebrities are also used on packaging to appeal to younger age groups.

"If banning cartoon characters on unhealthy foods provides an environment that makes it easier for children to accept a wider range of healthy foods, that's increasing choice, not removing it."

Professor Corinna Hawkes

Health and nutrition claims on packaging are also an issue. While these claims are legal, they have been shown to be misleading by creating a 'health-halo' that discourages consumers from scrutinising the label more thoroughly.⁶⁵ An explicit health claim (such as 'source of vitamins') or an implicit reference (such as a depiction of physical activity or vegetables) creates a positive impression of the healthiness of the product.⁶⁶ Recent research analysed products (such as cereal bars, fruit snacks and ready meals) that have child-focused imagery and health and nutrition claims (including terms such as 'one of your five-a-day') on their packaging – and, despite their health claims, 41% of these products were classed as high in fat, salt and sugar using the nutrient profiling model.⁶⁷

Action needed to reach the vision

Governments can play a key role in creating the conditions that incentivise food manufacturers to improve the health of their products using a combination of reformulation, portion size and labelling. Multiple policy interventions acting in synergy will be needed to ensure that healthier products are available and consumed, enabling individuals and families to take steps, over time, towards a healthier future.

Urgent action is needed across all the areas addressed in this chapter: reformulation (to create a healthier balance of ingredients), portion size (to change the size and packaging of foods so that portions are smaller), labelling (to signal clearly the ingredients and nutritional content of food and avoid unwarranted health claims) and packaging (to limit inappropriate promotional techniques).

There is potential for significant further gains to be made from reformulation, but these will be more effective if accompanied by appropriate incentives and accountability mechanisms. The UK Government has previously stated that fiscal measures will be considered to achieve wider reformulation, if voluntary targets are not met. Given the disappointing progress to date, fiscal measures are now urgently needed. A new fiscal lever should target the food industry to incentivise sugar reformulation, building on the success of the Soft Drinks Industry

- Levy such as the reformulation tax proposed in the National Food Strategy (NFS) (this is fully discussed in chapter 5).
- The calorie reduction programme is now under way, although no data on progress has been published to date. One conclusion drawn by the OHA⁶⁹ from the sugar reduction programme was the effectiveness of a specific, time-bound commitment to regulation as an incentive for reformulation: the UK Government made clear that milk-based drinks would be included in the SDIL if manufacturers did not reduce sugar voluntarily, leading them to make significant progress. This learning should be applied to the calorie reduction programme through a tangible UK Government commitment to introduce a calorie limit if 25% of the calorie reduction targets have not been achieved at the first reporting point of the programme.
- A mandatory upper limit on calories per single portion of unhealthy foods would limit excessively large portion sizes, particularly in the OOH sector. This should be based on PHE's pragmatic maximum calorie guidelines for each category (based on the 75th percentile of the range of products)⁷⁰ that were set following an extensive mapping of the range of calories per portion in the food categories that contribute the most to children's excess calorie intakes.

'Standardised portion sizes are really important...
Visual images are universally understood, an
unadulterated image, just a diagram of the portion
size recommendation. Selling this as their portion,
rather than selling a bottle of cola as two portions,
when the person is going to drink the whole thing in
one sitting'

- youth focus group member
- Clear front-of-pack nutrient labelling should be mandatory wherever purchasing and consumption decisions are made, implemented by food manufacturers and retailers (including online). This will enable compliance to be enforced equally across manufacturers and retailers and easily understood through presentation in an interpretive format (such as traffic lights).
- The current requirement for labelling to display total sugars should be replaced with information on free sugars to avoid misleading labelling and align the scheme with up-to-date dietary quidance.
- Sweeteners are often added to products as part of efforts to reduce sugar yet there is no mandatory requirement to include information on the quantity used. Including this information in the back-of-label requirement would help ensure sweetener use and the resulting sweetness of products can be monitored.
- Any changes to the existing colour-coded scheme requires public involvement to ensure they are easily understood. In Latin America, stark warning labels have been successfully introduced for some products high in sugar and salt, and the impact of these should be assessed and their adoption considered in light of the evidence.
- Labelling of calorie content on menus can assist in making informed choices and drive the provision of healthier menus, and the OHA backs the Government's plan (from April 2022) to require large businesses in England (with 250+ employees) to display calorie information of non-prepacked food and soft drinks prepared for customers. In light of concerns raised, the UK Government should continue to consult with eating disorder specialists to understand the impact of this policy and ensure mitigations are in place to protect those with or at risk of developing eating disorders. The Government should also continue to monitor and review the policy with a detailed evaluation as the policy is implemented.

"The rise in food delivery platforms has transformed the fast-food market — making food accessible with just a few clicks. However, given that this is mostly junk food (high in sugar, salt and saturated fat), the rapid growth of this sector is bad news for public health."

Professor Simon Capewell

- Labelling of the calorie content of alcoholic drinks
- both on containers and for measures listed on menus – would provide an additional level of important information that is currently missing and address what is, for some people, a significant but underappreciated source of calories.
- Urgent action is needed to limit the wide variety
 of promotional techniques used by the industry on
 product packaging of unhealthy food and drinks, many
 of which particularly target children, such as the use of
 cartoon characters and celebrities along with giveaways and competitions. In addition, inappropriate
 use of health claims may be used, with a claim (such
 as 'high in vitamin D') added to a product that is
 otherwise high in fat, salt and sugar.

'They make it really complicated! My grandparents struggle quite a lot sometimes when mum isn't around to grasp how many calories and carbs are in a box of treats for my grandpa to control his diabetes'

- participant in the youth panel

There is a need for further policy development and research to inform future effective interventions:

Further policy development is needed to ensure that portion sizes of unhealthy snacks are sold at proportionate cost. Larger packs (a 'grab bag' or 'sharing pack') should not be sold for proportionately less than smaller, single-size servings, 71 as evidence shows that the larger portions are likely to be consumed in greater quantities.⁷² This should take into account equity considerations – for example, the potentially disadvantageous implications of portionsize control for families on lower incomes, who may take advantage of larger portions to share among the family because of their better value for money. There is therefore a distinction to be drawn between larger meals being cheaper (per serving) and cheaper snacks. The growth of portion sizes needs to be addressed in conjunction with many other changes to the food environment, including the ready availability of unhealthy foods at non-food retail outlets (such as garages, clothes retailers and charity shops). Restrictions on price promotions and availability of

- unhealthy products across the board would enable a focus by retailers and manufacturers on prioritising promotion of products of higher nutritional quality (including family-sized meals from supermarkets). (See also chapter 7.)
- Use of food delivery platforms has seen a rapid rise in recent years and this is likely to continue with the OOH sector's expansion plans. There is a need to explore new policy approaches that facilitate the sale and purchase of healthier options on food delivery platforms.
- Further research is needed to understand the potential impact of other types of promotional techniques on product labelling - such as use of colours, pictures, warnings and branding - with a view to implementing further measures in the future.
- Any development of labelling should include public engagement and involvement in design, as labelling must be easily understandable and capable of being interpreted at a glance, as is the case with trafficlight labelling.

Recommendations

Responsibility

Introduce calorie labelling in large outlets, along with a comprehensive evaluation to understand the impact on different groups such as children and people with eating disorders. **DHSC**



Ensure nutrient information is displayed clearly on all food and drink products at point of sale, including online.

This should include:

- Mandatory front-of-pack nutrient labelling.
- Free sugar content on front-of-pack labels.
- Information on the quantity of sweeteners on the back-of-pack labels.
- Calorie information to be displayed on all alcoholic product labels.



Make a specific, time-bound commitment to introduce regulation to mandate calorie limits on single-serve portions of HFSS products if 25% of the calorie reduction targets have not been achieved by the first report point (2022) in the ongoing calorie reduction programme.

DHSC



Introduce new regulations to limit the use of promotional techniques on unhealthy food and drink product packaging.

This should include the following:

- Restrictions on the use of cartoon, brand equity and licensed characters along with celebrities and sports stars.
- End the use of on-pack promotional offers including give-aways, and competition prizes.
- Restrictions on nutritional and health claims.

DHSC

Explore and develop effective policies that address disproportionate pricing structures on HFSS products, to prevent multi-portion servings being sold for proportionately less than individual servings.

DHSC



Explore and develop policies to facilitate purchase of healthier options on food delivery aggregator platforms.

Undertake further research into the relative effect of different elements of product packaging - such as use of colour, pictures, warnings and branding - on the purchase and consumption of unhealthy food.

Research funders



References

- PHE 2018 Calorie Reduction: The Scope and Ambition for Action https://assets.publishing.service.gov.uk/government/uploads/system/uploads/ attachment data/file/800675/Calories Evidence Document.pdf (Table 4)
- 2. Reducing salt is also indirectly important in reducing obesity, because it is the combination of fat, sugar and salt in processed foods that makes them highly palatable, desirable and marketable and also because salt is linked with consuming more soft drinks: see S. Moosavian et al. 2017 'Salt and obesity: a systematic review and meta-analysis of observational studies' *International Journal of Food Sciences and Nutrition* 68(3): 265–77 https://doi.org/10.1080/09637486.2016.1239700 and FJ. Heet et al. 2008 'Salt intake is related to soft drink consumption in children and adolescents: a link to obesity?' *Hypertension* 51(3): 629–34 https://doi.org/10.1161/HYPERTENSIONAHA.107.100990
- 3. For example, K. Chang et al. 2021 'Association between childhood consumption of ultraprocessed food and adiposity trajectories in the Avon Longitudinal Study of Parents and Children Birth Cohort' *JAMA Pediatr* e21157 https://doi.org/10.1001/jamapediatrics.2021.1573 and A. Afshin et al. 2019 'Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017' *The Lancet* 393(10184): 1958–72 https://doi.org/10.1016/S0140-6736(19)30041-8
- 4. World Cancer Research Fund and American Institute for Cancer Research 2018 Diet, Nutrition, Physical Activity and Cancer: A Global Perspective Continuous Update Project Expert Report www.dietandcancerreport.org
- 5. EAT-Lancet Commission 2019 The EAT-Lancet Commission on Food, Planet, Health https://eatforum.org/eat-lancet-commission/
- 6. The Food Foundation 2018 Affordability of the UK's Eatwell Guide https://foodfoundation.org.uk/wp-content/uploads/2018/10/Affordability-of-the-Eatwell-Guide Final Web-Version.pdf
- 7. A. Lake and T. Townshend 2006 'Obesogenic environments: exploring the built and food environments' *Journal of the Royal Society for the Promotion of Health* 126(6): 262–7 https://doi.org/10.1177/1466424006070487
- 8. R. O'Connell and J. Brannen 2021 Families and Food in Hard Times: European Comparative Research (UCL Press) https://www.uclpress.co.uk/products/126956/
- 9. PHE 2018 Calorie Reduction: The Scope and Ambition for Action https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/800675/Calories Evidence Document.pdf
- 10. M. Keeble et al. 2020 'Use of online food delivery services to order food prepared away-from-home and associated sociodemographic characteristics: a cross-sectional, multi-country analysis' *Int. J. Environ. Res. Public Health* 17: 5190 https://doi.org/10.3390/ijerph17145190
- 11. M. Chang et al. 2020 'All change. Has COVID-19 transformed the way we need to plan for a healthier and more equitable food environment?' Urban Des Int https://doi.org/10.1057/s41289-020-00143-5
- 12. Data from Kantar Worldpanel, year-on-year change in spend and delivery share of spend, week ending 27 December 2020.
- 13. Data from Kantar: LinkQ Wave 4, September 2020: agree with statement 'I will continue to buy delivery more or the same', % share of consumers.
- 14. BiteBack2030 2021 Survey data, pending publication.
- 15. M. Keeble et al. 2021 'Socioeconomic inequalities in food outlet access through an online food delivery service in England: a cross-sectional descriptive analysis' *Applied Geography* 133(2021): 102498 https://doi.org/10.1016/j.apgeog.2021.102498
- 16. A. Yau et al. 2021 'Sociodemographic differences in self-reported exposure to high fat, salt and sugar food and drink advertising: a cross-sectional analysis of 2019 UK panel data' *BMJ Open* 11(4): e048139 https://doi.org/10.1136/bmjopen-2020-048139
- 17. A. Finlay et al. 2021 'An analysis of food and beverage advertising on bus shelters in a deprived area of Northern England' *PsyArXiv* https://doi.org/10.31234/osf.io/2ewy4
- 18. Public Health England 2018 Sugar Reduction and Wider Reformulation Programme: Report on Progress towards the First 5% Reduction and Next Steps https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/709008/Sugar_reduction_progress_report_ndf
- 19. A. Jaworowska et al. 2014 'Nutritional composition of takeaway food in the UK' *Nutrition & Food Science* 44: 414–30, https://doi.org/10.1108/ NFS-08-2013-0093
- 20. NatCen Social Research 2017 National Diet and Nutrition Programme: Years 1 to 9 of the Rolling Programme (2008/2009 2016/2017): Time Trend and Income Analyses https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/772434/NDNS_UK_Y1-9_report.pdf
- 21. B.T. Nguyen and L.M. Powell 2014 'The impact of restaurant composition among US adults: effects on energy and nutrient intakes' *Public Health Nutrition* 17(11) 2445–52 https://doi.org/10.1017/S1368980014001153
- 22. The Guardian 2021 'Deliveroo raises sales forecast after strong first half of 2021' (8 July) https://www.theguardian.com/business/2021/jul/08/deliveroo-raises-sales-forecast-after-strong-growth-in-2021 and The Guardian 2021 'McDonalds to hire 20,000 workers is UK and Ireland' (20 June) https://www.theguardian.com/business/2021/jun/20/mcdonalds-to-hire-20000-workers-in-uk-and-ireland
- 23. M. Gressier et al. 2020 'Healthy foods and healthy diets: how government policies can steer food reformulation' *Nutrients* 12(7): 1–9 https://doi.org/10.3390/nu12071992
- 24. C. Federici et al. 2019 'The impact of food reformulation on nutrient intakes and health: a systematic review of modelling studies' *BMC Nutr* 5: 2 https://doi.org/10.1186/s40795-018-0263-6
- 25. M. Gressier et al. 2020 'Healthy foods and healthy diets: how government policies can steer food reformulation' *Nutrients* 12(7): 1–9 https://doi. org/10.3390/nu12071992
- 26. K. Allen et al. 2015 'Potential of trans fats policies to reduce socioeconomic inequalities in mortality from coronary heart disease in England: cost effectiveness modelling study' *BMJ* 351: h4583 https://doi.org/10.1136/bmj.h4583

- 27. FJ. He et al. 2013 'Salt reduction in the United Kingdom: a successful experiment in public health' *Journal of Human Hypertension* 28(6): 345–52 https://doi.org/10.1038/jhh.2013.105 and Action on Salt 2020 'UK salt reduction timeline' http://www.actiononsalt.org.uk/reformulation/uk-salt-reduction-timeline/
- 28. PHE 2020 Salt Reduction Targets for 2024 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915406/2024 salt reduction targets 070920-FINAL-1.pdf
- 29. DHSC 2011 'Public Health Responsibility Deal' (25 July) https://www.gov.uk/government/news/public-health-responsibility-deal
- 30. C. Knai et al. 2015 'Has a public-private partnership resulted in action on healthier diets in England? An analysis of the Public Health Responsibility Deal food pledges' *Food Policy* 54: 1–10 https://doi.org/10.1016/j.foodpol.2015.04.002
- 31. PHE 2020 Sugar Reduction: Report on Progress between 2015 and 2018 https://www.gov.uk/government/publications/sugar-reduction-progress-between-2015-and-2018
- 32. P Scarborough et al. 2020 'Impact of the announcement and implementation of the UK Soft Drinks Industry Levy on sugar content, price, product size and number of available soft drinks in the UK, 2015–19: a controlled interrupted time series analysis' *PLoS Medicine* https://doi.org/10.1371/journal.pmed.1003025
- 33. L.K. Bandy et al. 2020 'Reductions in sugar sales from soft drinks in the UK from 2015 to 2018' BMC Med 18: 20 https://doi.org/10.1186/s12916-019-1477-4
- 34. L. Cobiac et al. 2021 'Impact of the Soft Drink Industry Levy on health and health inequalities of children and adolescents in England' pre-
- 35. P.C. Herman et al. 2015 'Mechanisms underlying the portion-size effect' *Physiology & Behavior* 144: 129–36 https://doi.org/10.1016/j. physbeh.2015.03.025
- 36. T.M. Marteau et al. 2015 'Downsizing: policy options to reduce portion sizes to help tackle obesity' *BMJ* 351: h5863 https://doi.org/10.1136/bmj.h5863
- 37. PHE 2020 Calorie Reduction: Technical Report: Guidelines for Industry 2017 Baseline Calorie Levels and the Next Steps https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915367/Calorie_reduction_guidelines-Technical_report_070920-FINAL.pdf
- 38. OHA 2021 'What's on the menu? Calorie information as the Government commits to transparent nutrition labelling in the OOH sector' (21 May) http://obesityhealthalliance.org.uk/2021/05/21/whats-on-the-menu-calorie-information-as-the-government-commits-to-transparent-nutrition-labelling-in-the-ooh-sector/
- 39. P. Dobson and E Gerstner 2010: For a few cents more: why supersize unhealthy food? Market Sci. 29: 770–8 https://doi.org/10.1287/mksc 1100 0558
- 40. T.M. Marteau et al. 2015 'Downsizing: policy options to reduce portion sizes to help tackle obesity' BMJ 351: h5863 https://doi.org/10.1136/bmj.h5863
- 41. GJ. Hollands et al 2015 'Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco' Cochrane Database of Systematic Reviews https://www.cochrane.org/CD011045/PUBHLTH_portion-package-or-tableware-size-changing-selection-and-consumption-food-alcohol-and-tobacco
- 42. J. Riis 2014 'Opportunities and barriers for smaller portions in food service: lessons from marketing and behavioral economics' *International Journal of Obesity*, 38(Suppl 1): S19–S24 https://doi.org/10.1038/ijo.2014.85
- 43. L. Goffe et al. 2019 'Feasibility of working with a wholesale supplier to co-design and test acceptability of an intervention to promote smaller portions: an uncontrolled before-and-after study in British fish & chip shops' *BMJ Open* 9: e023441 https://doi.org/10.1136/bmjopen-2018-023441
- 44. Food Standards Scotland 2019 Analysis of a Food Standards Scotland Public Consultation on Improving the Out of Home Food Environment in Scotland https://www.foodstandards.gov.scot/publications-and-research/publications/analysis-of-a-food-standards-scotland-public-consultation-on-improving-the
- 45. G.J. Hollands et al 2015 'Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco' *Cochrane Database of Systematic Reviews* https://www.cochrane.org/CD011045/PUBHLTH_portion-package-or-tableware-size-changing-selection-and-consumption-food-alcohol-and-tobacco
- 46. E. Almiron-Roig et al. 2019 'A review of evidence supporting current strategies, challenges, and opportunities to reduce portion sizes' *Nutrition Reviews* 78: 91–114 https://doi.org/10.1093/nutrit/nuz047
- 47. T.M. Marteau et al. 2015 'Downsizing: policy options to reduce portion sizes to help tackle obesity' *BMJ* 351: h5863 https://doi.org/10.1136/bmj. h5863 and W.M. Vermeer et al. 2014 'Small, medium, large or supersize? The development and evaluation of interventions targeted at portion size' *Int J Obes* (Lond) 38 Suppl 1, S13–8 http://doi.org/10.1038/ijo.2014.84
- 48. H. Croker et al. 2020 'Front of pack nutritional labelling schemes: a systematic review and meta-analysis of recent evidence relating to objectively measured consumption and purchasing' *Public Health Nutrition* 33: 518–37 https://doi.org/10.1111/jhn.12758 and L. Hallez et al. 2020 'That's my cue to eat: a systematic review of the persuasiveness of front-of-pack cues on food packages for children vs. adults' *Nutrients* 12(4): 1062 https://doi.org/10.3390/nu12041062
- 49. F.J. He et al 2014 'Salt reduction in the United Kingdom: a successful experiment in public health' *J Hum Hypertens* 28(6): 345–52 https://doi. org/10.1038/jhh.2013.105 and E.L. Vyth et al. 2010 'Front-of-pack nutrition label stimulates healthier product development: a quantitative analysis' *Int J Behav Nutr Phys Act 7*: 65 https://doi.org/10.1186/1479-5868-7-65
- 50. D.R.Z. Theis and J. Adams 2019 '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* 14(12): e0226704 https://doi.org/10.1371/journal.pone.0222773

- 51. S. Araya et al. 2019 (updated 2021) 'Identifying food labelling effects on consumer behaviour' (University of Chile) http://www.dii.uchile.cl/~cnoton/AENS 2019.pdfc
- 52. DHSC et al. 2020 *Building on the Success of Front-of-pack Nutrition Labelling in the UK: A Public Consultation* https://assets.publishing.service.gov. uk/government/uploads/system/uploads/attachment_data/file/905096/front-of-pack-labelling-consultation-document-english.pdf
- 53. H. Croker et al. 2020 'Front of pack nutritional labelling schemes: a systematic review and meta-analysis of recent evidence relating to objectively measured consumption and purchasing' *Journal of Human Nutrition and Dietetics* 33(4): 518–37 https://doi.org/10.1111/jhn.12758
- 54. O. Elshiewy and Y. Boztug 2018 'When back of pack meets front of pack: how salient and simplified nutrition labels affect food sales in supermarkets' *Journal of Public Policy and Marketing* 37: 55–67 https://doi.org/10.1509/jppm.16.100
- 55. S. Araya et al. 2019 (updated 2021) 'Identifying food labelling effects on consumer behaviour' (University of Chile) http://www.dii.uchile.cl/~cnoton/AENS 2019.pdfc
- 56. IGD 2021 'Three things to know about front of pack nutrition labels in the UK' (18 January) https://www.igd.com/articles/article-viewer/t/three-things-to-know-about-front-of-pack-nutrition-labels-in-the-uk/i/27499
- 57. R.A. Crockett et al. 2018 'Nutritional labelling for healthier food or non-alcoholic drink purchasing and consumption' *Cochrane Database Syst Rev* 2: Cd009315: https://doi.org/10.1002/14651858.CD009315.pub2
- 58. D.R.Z. Theis and J. Adams 2019 '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* 14(12): e0226704 https://doi.org/10.1371/journal.pone.0226704
- 59. ibid.
- 60. Action on Sugar 2020 "Ready to drink" alcoholic beverages' http://www.actiononsugar.org/news-centre/press-releases/2020/ready-to-drink-alcoholic-beverages.html
- 61. Royal Society for Public Health 2021 Labelling the Point: Towards Better Alcohol Health Information https://www.rsph.org.uk/our-work/policy/drugs/labelling-the-point.html
- 62. Alcohol Health Alliance 2021 'Great British public and leading health experts back changes to alcohol labelling' (11 May) https://ahauk.org/news/great-british-public-and-leading-health-experts-back-changes-to-alcohol-labelling/
- 63. E. Boyland et al. 2020 'Food marketing to young people: a substantial public health challenge' *Ann Nutr Metab* 76: 6–9 https://doi.org/10.1159/000506413
- 64. S. Pombo-Rodrigues et al. 2020 'Nutrition profile of products with cartoon animations on the packaging: a UK cross-sectional survey of foods and drinks' *Nutrients* 12(3): 707 https://doi.org/10.3390/nu12030707
- 65. PHE 2019 Foods and Drinks Aimed at Infants and Young Children: Evidence and Opportunities for Action https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/812204/Foods_and_drinks_aimed_at_infants_and_young_children_June_2019.pdf p. 20
- 66. B. Sütterlin and M. Siegrist 2015 'Simply adding the word "fruit" makes sugar healthier: the misleading effect of symbolic information on the perceived healthiness of food' *Appetite* 95: 252 61 https://doi.org/10.1016/j.appet.2015.07.011
- 67. A.L. García et al. 2019 'Confused health and nutrition claims in food marketing to children could adversely affect food choice and increase risk of obesity' *Archives of Disease in Childhood* 104: 541–46 http://dx.doi.org/10.1136/archdischild-2018-315870
- 68. DHSC 2018 Childhood Obesity: A Plan for Action, Chapter 2 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718903/childhood-obesity-a-plan-for-action-chapter-2.pdf
- 69. OHA 2020 'Response to sugar reduction targets' (7 October) http://obesityhealthalliance.org.uk/2020/10/07/in-response-to-sugar-reduction-targets-7th-october-2020/
- 70. PHE 2020 Technical Report: Guidelines for Industry, 2017 Baseline Calorie Levels and the Next Steps https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/915367/Calorie reduction guidelines-Technical report 070920-FINAL.pdf
- 71. For example, a 50g 'grab bag' of crisps should not be sold for less than twice the price of a 25g bag.
- 72. E. Almiron-Roig et al. 2019 'A review of evidence supporting current strategies, challenges, and opportunities to reduce portion sizes' *Nutrition Reviews* 78: 91–114 https://doi.org/10.1093/nutrit/nuz047



5. The fiscal levers for health

This chapter discusses the ways that the UK Government can intervene to facilitate healthy weight using financial levers such as taxation, incentives and funding.

Our vision

Access to healthy food is affordable, businesses profit from prioritising healthy products, and health-promoting aspects of our environment are well resourced for all.

Rationale for action

The financial systems that underpin our society are currently not delivering what is needed for a healthy population. At a household level, many families in the UK struggle to put fresh, healthy food on the table when on fixed, low or unpredictable incomes. At a macroeconomic level, the commercial food system remains locked into a model in which the greatest profits can be made from energy-dense, nutrient-poor, highly processed foods. A history of funding cuts to local authorities has led to cuts in vital services that play an important role in facilitating healthy weight, such as early-years services and weight-management services.

The link between the economy and health has never been more evident than during the Covid-19 epidemic,

highlighting how policy choices made by government impact both the economy and health at a population and individual level. It is time to take an approach that makes living well affordable for individuals and families – while still delivering profit for industry if carefully designed and investing in the services that can prevent ill health in the future.

How do we create the conditions that will drive a sustainable healthy food economy? If we can't we will be always fighting a losing battle.

Dr Justin Varney

The system fails individual families

'I think it's so expensive to eat healthy and there's a lot of poverty, people just can't afford it. If you go into the supermarket, for a punnet of strawberries you're looking at £3, but you can get a multipack of crisps for £1, bars of chocolate for £1, so you can see why people opt more to buy junk foods'

- participant in the insight panel

Food insecurity – 'a lack of consistent access to enough food for an active, healthy life'² – is not just a question of hunger or lack of food: it is about diet quality.

Living in a state of food insecurity can mean eating food that is cheap but that is often energy-dense and nutritionally poor,³ which fuels obesity and other forms of malnutrition.⁴ The Food Foundation has shown that

families from the most deprived groups of society would have had to spend 76% of their household's disposable income in 2018 on food to eat in a way that meets the Eatwell guidance, compared with just 6% of disposable income for households in the least deprived groups.⁵ In addition, the assets needed to store, prepare and cook fresh food (kitchen, stove, fridge, store-cupboard ingredients and cooking implements) may be beyond the means of many of the poorest families.⁶

The Covid-19 crisis has significantly exacerbated levels of food insecurity. In the six months prior to the pandemic, 11.5% of adults living with children reported

experiencing moderate or severe food insecurity, but this rose to 14% in mid-2020: a total of 4 million people, including 2.3 million children.⁷ Food bank use jumped 33% in a single year (up a total of 128% over the five years from 2015/16).⁸

The need to address underlying causes of food insecurity and poor nutritional intake is clear, but there are no simple answers. This requires a whole-government approach, with departments and agencies responsible for work, wage levels, welfare benefits and immigration policies working together to reduce poverty that drives food insecurity.

The system fails us all

As discussed in chapter 3, profit is the key driver for the commercial food industry. Food processing adds value to raw ingredients,⁹ putting processed foods at the heart of food-industry profits. However, many of the most highly processed foods are both nutritionally inadequate and potentially harmful¹⁰ and, at the same time, large food companies are operating in an economic environment that demands continual growth. In addition, smaller food retail franchises work in markets that call for speed and ease of preparation, coupled with low labour costs. This often means

a predominance of processed food, which reduces skills requirements, locking the workforce into a 'reheat' industry.

The requirement for growth, coupled with the failure of markets to take externalities such as the costs to public health into account, continues to fuel the shift that has taken place towards processed foods in the UK in the post-war years, and that is now a key driver of unhealthy weight, what the NFS calls the 'Junk Food Cycle'.11

Breaking the 'Junk Food Cycle'

The failures of the food system are self-perpetuating and self-reinforcing: the food industry is operating within a damaging economic model, locking the nation into everrising obesity. When many people cannot afford to buy healthy food, demand falls and the companies providing food instead pivot to meet the apparent demand for cheap (and unhealthy) products. When the food industry fails to provide healthy, affordable and convenient food, and uses its marketing power to advertise unhealthy food,

products such as fresh fruits and vegetables lose the marketing race and fall out of consumer consciousness and so in turn, demand drops further.

The UK Government can take steps to correct this market failure, incentivising both the supply and demand for healthy food to rebalance the system and turn what is a vicious cycle into a virtuous one.

Levers for change

A key fiscal tool that the Government has at its disposal is the use of taxes on unhealthy ingredients in processed food, with substantial evidence that taxation can have a positive impact on outcomes related to obesity. This can reduce consumption in two ways: raising the price of unhealthy foods (encouraging a move by consumers to healthier, cheaper options) and acting as an incentive for manufacturers to reformulate their products (improving recipes to move unhealthy products out of reach of the tax to keep their prices low and competitive).

The mandatory SDIL has shown that taxes can be highly effective: average sugar content in soft drinks fell by 29%, ¹³ which it is estimated will result in 74,000 fewer children and teenagers living with overweight and 36,000 fewer children and teenagers living with obesity per year over the next 10 years. ¹⁴ These benefits will be disproportionately gained by the more socioeconomically disadvantaged, since there was a steep socioeconomic gradient in sugary drink consumption prior to introduction of the SDIL.

Fiscal policies are among the most powerful levers for change a government has available. Well-designed fiscal policies can be cost-effective, can promote health equity, and - with the right messaging - can be widely supported.

- Dr Tim Lobstein

As noted in chapter 4, however, PHE's more recent voluntary sugar reduction target of 20% by 2020 has been less successful: three years into the programme just 3% of the sugar had been removed. The salt reduction target saw initial success but has now stalled, leaving consumption 40% above the recommended 6g a day. These targets are voluntary and are not currently accompanied by a fiscal lever.

Concerns that further taxes on food are unpopular are unwarranted: The Health Foundation found in 2020 that 63% of people support extending the SDIL to other sugary foods.¹⁷

A new potential lever for the UK Government is that, following the UK's exit from the European Union, there are, for the first time in many years, negotiations on international trade and investment agreements (TIAs). Managed well, this is an opportunity to use the broader trade system to prioritise public health and good nutrition for all – this is addressed in box 9.

International trade and investment agreements

International trade and investment agreements have the potential for significant implications for health and nutrition, as food is traded extensively across borders and is therefore subject to many of the provisions contained in these agreements. In particular, TIAs can play a role in directing important decisions¹⁹ about what, how and how much to produce, import and export, including in agriculture. This shapes the cost and availability of both fresh food and the inputs for food manufacturing, which in turn influences food manufacturers' buying decisions. TIAs can therefore be a crucial entry point for fundamental change to the UK's diet, affecting the products available to shoppers and the price at which they are offered, with implications for healthy weight.

Any government regulation of public-health priorities – such as tobacco control²⁰ or addressing obesity – that is seen to run counter to an international TIA must be non-discriminatory (fair), necessary, have gone through sound regulatory processes, and be evidence-based.²¹ For the evidence to be fully understood with the full health consequences (and attendant economic costs) appropriately factored in, public-health experts and relevant civil society organisations must be consulted and engaged throughout the process of writing and negotiating the agreements – and steps taken to protect public interests from undue commercial interference.

Mandatory health impact assessments (as well as environmental and equity impact assessments) should be carried out and published, the cost-benefits should be fully accounted for, the decision-making process should be transparent, the evidence taken fully into account, and Parliament should have sufficient time for meaningful scrutiny and debate, enabling informed decisions on TIAs to be made that have health and nutrition at their heart. A full understanding of the links between public health and TIAs also means that future public-health regulation in the UK is more likely to be designed in such a way as to avoid being open to challenge by other governments or industry as being a breach of the agreement.

Within the UK itself, trade between the four nations is now governed by the UK Internal Market Act 2020. This Act limits the powers of the devolved nations to act independently, including on public health – such as on labelling or fiscal measures. Despite some amendments to the initial Bill, concerns remain over how market-access principles will be enforced, how any disputes will be settled, and regarding any potential 'chilling' effect on future internal policy thinking (including on public-health measures) because of concerns that the policy will be challenged.²²

In addition to government action, the **role that investors can play** is gaining increasing traction. Investors are becoming increasingly aware of the substantial risks if companies fail to adapt to increasing demand for healthy

food and to new government interventions and priorities. Growing movements such as impact investing and 'social business models' assess how businesses impact on people (social good), planet (the environment) and profit²³ – but

these tend to focus on social or environmental causes (such as human rights or carbon reduction), with less focus on the healthiness (or otherwise) of the company's products themselves. However, investors are starting to put pressure on businesses to take health seriously – with some positive results (see box 10).

Investors call for change

ShareAction has established a Healthy Markets Initiative to bring investors together to address childhood obesity. As part of this effort, in February 2021 a coalition of seven institutional investors (representing £140 billion of investments) filed a shareholder proposal calling on Tesco, the biggest supermarket in the UK, to reduce unhealthy food and drink. In response, Tesco has made commitments to increase the proportion of healthier products sold across its entire retail group. The company has also agreed to a two-year engagement with investors through ShareAction's Healthy Markets work, as Tesco implements its new commitments. ²⁵

Funding the systems that facilitate good health

Government has responsibility for funding the systems and structures that facilitate good health and help prevent future disease: a fiscal lever that can affect all aspects of obesity prevention and treatment.

Since 2013, local authorities have been responsible for most aspects of public health and receive a public-health grant from central government to fund services. Public health services are critical for improving the population's health and reducing health inequalities. Investment by the Government in public health can relieve pressure on other services such as the NHS by helping to prevent or delay disease. This funding enables local authorities to deliver vital preventative and treatment services, including many that contribute to healthy weight, such as early-years services and weight-management services.

However, analysis from the Health Foundation has shown that public-health grant allocations have fallen in real terms from £4.2 billion in 2015–16 to £3.3 billion in 2021–22, 26 which has led to significant and well-documented challenges in the ability of local authorities to maintain and improve the health of their populations. According to analysis from the King's Fund, the cuts have resulted in a cut to obesity services of 5.4% between 2016/17 and 2020/21, and a 25.9% cut in the National Child Measurement Programme. 27 Cuts to the grant also undermine the ability of directors of public health to influence wider public services that can affect healthy weight, including housing and transport. The reduction in the public-health grant coincides with wider reductions in

local authority budgets since 2010/11, which have further impacted on services that play a key role in supporting healthy weight, including leisure centres and green spaces.

Local authorities need stable funding arrangements that enable them to carry out the long-term planning and investment needed to secure improvements in public health and play their vital role in helping facilitate population-level healthy weight.

Overall, the UK needs an economic approach that stimulates access to healthy food and to physical activity, reduces the risk for businesses and encourages competition to prioritise health. At a time of unprecedented concern as a result of Covid-19, good nutrition – addressing obesity and tackling food insecurity once and for all – and ensuring that all the systems that facilitate good health are appropriately funded should be at the heart of UK Government efforts to 'build back better'. Getting the financial levers for health right could also add to the UK's standing in the global food system at a time of great change, putting the country at the forefront of growing calls – from the public, government and investors – to look at business in a new, more rounded and holistic way.

The role of incentives in encouraging physical activity

There is a socioeconomic gradient in physical activity – poverty drives inactivity as well as poor nutrition – but, as box 3, chapter 1 notes, physical activity levels are too low across the board. Recent reviews have concluded that incentives provided to individuals (such as small financial payments) probably improve leisure-time physical activity and walking, with small improvements sustained over time. The UK Government has invested £6 million in a pilot programme that will use incentives and rewards to support people to eat better and be more physically active but robust evaluation is needed to understand if this type of approach has merit and understand the impact on different sectors of society.

Action needed to reach the vision

Urgent action is needed across all areas discussed with in this chapter, addressing both the short-term pressures of food insecurity and the long-term repositioning of the food system, ensuring that healthy food and physical activity are affordable and accessible for all, and that public health is adequately funded.

- The inequalities that drive food insecurity and subsequent diet cannot be fixed quickly and require significant will and action across government. An indepth look at ways to address food poverty is outside the scope of this strategy, but this is covered in detail in the recent NFS, which includes recommendations to widen access to healthy food such as expanding the Healthy Start voucher scheme and extending access to free school meals. Action in these areas are vital in the creation of a healthy and affordable food system that can help individuals and families to achieve and maintain a healthy weight and provide a nutritional safety net to children all year round.
- require an **adequately resourced local public health system** if they are to be successfully delivered. A
 long-term approach to funding will also help to
 ensure that local authorities can make the strategic
 decisions needed to support the health of their local
 population. The Health Foundation has calculated
 there has been a 24% cut to the 2021/22 public
 health grant allocations equivalent to £1 billion
 on a real-term, per capita basis compared to
 2015/16.³¹ As a minimum, the UK Government should
 restore the public-health grant to 2015/16 levels by
 reinstating the extra £1 billion investment each year
 and then ensuring that the grant keeps pace with
 growth in NHS England's spend in the longer term.

- The barriers to businesses shifting their business models towards those that favour healthier foods need to be addressed through fiscal policies, incentives and investment, with **taxes on unhealthy ingredients in processed food** being a clear, evidence-informed way to have a positive impact on outcomes related to obesity. Voluntary approaches have shown themselves to be largely ineffective in encouraging sufficient reformulation (box 8, chapter 4), so a regulatory fiscal measure is needed to incentivise reformulation of food categories that contribute the most excess calories to diets, particularly categories where voluntary approaches have not driven progress.
- Building on the success of the SDIL, a direct levy payable by the food and drink industry is the most effective way to achieve reformulation and should be implemented by the UK Government as a priority. The introduction of such levers to incentivise reformulation of processed food would maximise public-health benefits and stimulate industry to innovate to produce healthier products. The proposals for taxes on sugar and salt set out in the NFS is one way to achieve this aim (see box 12 for more detail on this proposal).
- A levy applied to the food industry is also likely to increase the cost of some unhealthy foods at point of sale, as industry seeks to maintain profits by passing on costs to the consumer. A price increase is likely to make products less appealing to consumers, discouraging purchase and driving further public health benefits. Revenue raised from a levy could also help to fund the many further investments needed to support healthy weight that are outlined in this chapter and throughout this strategy.

The NFS proposal for a sugar and salt tax

The NFS put forward a detailed proposal for a tax on industry of £3 per kilogram of sugar and other ingredients used for sweetening (such as syrup or fruit extracts, but not raw fruit) in processed food, or for use in catering or restaurants, to be introduced over a period of three years to allow companies to review and reformulate their products. The NFS calculates this would lead to an estimated 4–10g reduction in consumption per day, equivalent to a cut of between 1–3.6kg of sugar annually, which would be between 16% and 83% closer to the target level of 30g a day (depending on gender, age and other factors).³³ The NFS also proposes a similar levy on salt to address wider dietary risks posed by excess salt consumption³⁴ – and, as high-calorie foods such as pizza are also often high in salt, the price rises could help to drive down demand for energy-dense as well as salty food.³⁵

The levy could bring striking additional gains for the economy: when all the potential benefits to health, economic output, the NHS and social care are added together, the total economic gain of the sugar levy is conservatively estimated at £63 billion over 25 years. 36

Average price increases to the consumer from the proposed sugar and salt levies combined would be around 16-20p per adult per day and, as the NFS recognises, any levy should be coupled with support for those on low incomes to access healthy foods. This could be funded by the estimated £2.9-3.4 billion per year in government revenue raised by the two levies.³⁷

- Shareholders and investors can play an important role in pushing industry to take action to improve the health of their product portfolios (see box 10). Requiring companies to disclose sales data would facilitate the public and shareholder scrutiny that can provide an incentive for businesses to take meaningful action to reduce sales of unhealthy food and drinks. To this end, this strategy supports the recommendation made in the NFS to place a legal duty on food businesses with over 250 employees to publish data on HFSS food sales (reported as a percentage of total food and drink sales). To be effective, this reporting must be mandatory and backed by legislation, with all companies reporting data in a standardised format, collated by a trusted third party, such as the FSA. A voluntary approach to data disclosure was attempted as part of the Public Health Responsibility Deal, resulting in companies each producing their own data, but evidence shows that this unstandardised approach was very challenging to scrutinise.³⁸
- Ensuring that agricultural policy and subsidies give priority to healthier foods can also be a useful lever for government. On a national level, international trade and investment agreements can play an important role in setting the price and availability of food, so it is vital that the UK Government ensures that the rights to health and to adequate and nutritious food are at the heart of trade negotiations and agriculture policy development. This can be achieved through appropriate and meaningful participation of public-health experts and relevant

civil-society organisations, the publication of mandatory health impact assessments, adequate time for parliamentary scrutiny and debate, and the adoption and implementation of mechanisms that can protect public health interests from undue commercial interference and influence.

There also is significant potential for exploration and research into other forms of fiscal stimulus across a range of areas.

In the longer term, broader measures that can be considered as means through which to begin to encourage health-promoting behaviours across the population should be explored, shifting the focus towards a healthier food system and incentivising physical activity.

- There is considerable potential for the use of fiscal stimulus mechanisms to support food businesses to shift towards healthier products. Mechanisms to achieve this could include using the business registration scheme to support food outlets and retailers that commit to practices that support health, such as calorie caps, nutrition and calorie labelling and serving predominantly healthier foods. This can sit alongside non-fiscal incentives, such as the Healthier Catering Commitment in London.³⁹
- The UK Government could explore other potentially powerful levers that can create the right conditions for a change in business practices. These include measures to encourage investors to demand change from

businesses including supporting greater investment in venture funds that support new businesses focused on improving healthy diets. 40 Government investment in education and skills across the food supply chain could drive a pioneering approach to environmental agriculture, healthy food technology and production, putting the UK at the forefront of the global healthy food science sector. 41

 Fiscal measures, such as road charging and increased fuel duty, have also been considered as a means to encourage people towards walking and cycling and out of their cars, and can play a role in encouraging healthy weight as well as having many other significant potential co-benefits for health, including lower air pollution, fewer traffic accidents, reduced carbon emissions and a green and healthy recovery from Covid-19.⁴²

Recommendations

Responsibility

Invest at least £1 billion more a year in the Public Health Grant, with future yearly increases aligned to the NHS budget increases. This will ensure local authorities are well placed to deliver the recommendations outlined in this strategy.

HMT



Introduce a fiscal lever on food and drink manufacturers to incentivise further reformulation of processed food, such as the sugar and salt reformulation tax proposed in the National Food Strategy.

HMT, DEFRA, DHSC



Set out a process to ensure that the UK Government, in its trade negotiations and agriculture policy development, protects the right to health, the right to adequate nutritious food and related rights for all.

DIT, DHSC



- Participation of public health experts and relevant civil society organisations.
- The publication of mandatory health impact assessments.
- Time for meaningful Parliamentary scrutiny and debate.
- The adoption and implementation of mechanisms intended to protect public interests from undue commercial interference.



Introduce a legal duty for large food businesses to provide annual data on their sales of HFSS products, to be collated and published by the FSA.

DHSC, FSA



Assess the potential and utility of fiscal stimulus mechanisms to support food businesses to shift towards the production, manufacture, and sale of healthier food and drink products.

DHSC, HMT, BEIS



References

- 1. The Food Foundation 2020 *The Broken Plate 2020: The State of the Nation's Food System* https://foodfoundation.org.uk/wp-content/uploads/2020/09/FF-Broken-Plate-2020-DIGITAL-FULL.pdf
- 2. A.G.M. Brown et al. 2019 'Food insecurity and obesity: research gaps, opportunities, and challenges' *Translational Behavioral Medicine* 9(5): 980–7 https://doi.org/10.1093/tbm/ibz117
- 3. M. Aceves-Martins et al. 2018 'Child food insecurity in the UK: a rapid review' Public Health Research 6(13) https://doi.org/10.3310/phr06130
- 4. L.S. Elinder 2005 'Obesity, hunger, and agriculture: the damaging role of subsidies' *BMJ* 331(7528): 1333–6 https://doi.org/10.1136/bmj.331.7528.1333 and J.C. Wells et al. 2020 'The double burden of malnutrition: aetiological pathways and consequences for health' *Lancet* 395(10217): 75–88 https://doi.org/10.1016/S0140-6736(19)32472-9
- 5. The Food Foundation 2020 *The Broken Plate 2020: The State of the Nation's Food System* https://foodfoundation.org.uk/wp-content/uploads/2020/09/FF-Broken-Plate-2020-DIGITAL-FULL.pdf
- 6. A. Hayter et al. 2015 'A qualitative study exploring parental accounts of feeding pre-school children in two low-income populations in the UK' *Maternal & Child Nutrition* 11: 371–84 https://doi.org/10.1111/mcn.12017 and M. Power et al. 2021 "The reality is that on Universal Credit I cannot provide the recommended amount of fresh fruit and vegetables per day for my children": moving from a behavioural to a systemic understanding of food practices' *Emerald Open Res* 3:3 https://doi.org/10.35241/emeraldopenres.14062.1
- 7. The Food Foundation 2020 'New Food Foundation data: 14% of UK families with children have experienced food insecurity in the past 6 months' (press release, September) https://foodfoundation.org.uk/new-food-foundation-data-sept-2020/
- 8. The Trussell Trust 2021 'Trussell Trust data briefing on end-of-year statistics relating to use of food banks: April 2020–March 2021' https://www.trusselltrust.org/wp-content/uploads/sites/2/2021/04/Trusell-Trust-End-of-Year-stats-data-briefing_2020_21.pdf
- 9. C.A. Monteiro et al. 2013 'Ultra-processed products are becoming dominant in the global food system' *Obes Rev* 14(S2): 21–8 https://doi.org/10.1111/obr.12107
- 10. S. Vandevijvere et al. 2019 'Global trends in ultraprocessed food and drink product sales and their association with adult body mass index trajectories' Obes Rev 20(Suppl 2): 10–19 https://doi.org/10.1111/obr.12860; T. Fiolet et al. 2018 'Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort' BMJ 360: k322 https://doi.org/10.1136/bmj.k322 and B. Srour et al. 2019 'Ultra-processed food intake and risk of cardiovascular disease: prospective cohort study (NutriNet-Santé)' BMJ 365: l1451 https://doi.org/10.1136/bmj. 11451
- 11. H. Dimbleby 2021 'Breaking the Junk Food Cycle', chapter 4 of *The National Food Strategy Independent Review: The Plan* https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National-Food-Strategy-The-Plan.pdf
- 12. S. Thiele and J. Roosen 2018 'Obesity, fat taxes and their effects on consumers' in H. Bremmers and K. Purnhagen (eds), Regulating and Managing Food Safety in the EU: Economic Analysis of Law in European Legal Scholarship', vol 6 (Springer, Cham) https://doi.org/10.1007/978-3-319-77045-1_9
- 13. P. Scarborough et al. 'Impact of the announcement and implementation of the UK Soft Drinks Industry Levy on sugar content, price, product size and number of available soft drinks in the UK, 2015-19: a controlled interrupted time series analysis' *PLoS Med* 17(2): e1003025 https://doi.org/10.1371/journal.pmed.1003025
- 14. L. Cobiac et al. 2021 'Impact of the Soft Drink Industry Levy on health and health inequalities of children and adolescents in England' prepublication
- 15. N. Coyle et al. for PHE 2020 Sugar Reduction Report on Progress 2015 to 2019 https://www.gov.uk/government/publications/sugar-reduction-report-on-progress-between-2015-and-2019
- 16. F.J. He et al. 2013 'Salt reduction in the United Kingdom: a successful experiment in public health' *Journal of Human Hypertension* 28(6): 345–52 https://doi.org/10.1038/jhh.2013.105
- 17. Health Foundation 2020 *Public Perceptions of Health and Social Care in Light of COVID-19* (Ipsos Mori) https://www.health.org.uk/publications/reports/public-perceptions-of-health-andsocial-care-in-light-of-covid-19-may-2020
- 18. This is a complex web. Trade policy that involves agri-food products is a subset of broader agricultural policy, which sets goals for the agricultural sector and how to achieve them. Trade agreements are established between governments and are governed by rules from the World Trade Organization and by free trade agreements, with disputes brought between governments. In contrast, international investment treaty disputes can be brought against governments by businesses to try to reverse regulatory change that is seen to have negatively impacted on their in-country investments.
- 19. T. Benton et al. 2019 Food Politics and Policies in Post-Brexit Britain (Chatham House: London) https://www.sipotra.it/wp-content/uploads/2019/03/Food-Politics-and-Policies-in-Post-Brexit-Britain.pdf
- 20. Pan American Health Organization 2016 Report on Tobacco Control for the Region of the Americas. WHO Framework Convention on Tobacco Control: 10 Years Later https://iris.paho.org/bitstream/handle/10665.2/28393/9789275118863_eng.pdf?sequence=1&isAllowed=y
- 21. J. Curtis and A. Garde 2020 'Overcoming the legal challenge to end childhood obesity: pathways towards positive harmonization in law and governance' in A. Garde and O. De Schutter (eds), Ending Childhood Obesity: A Challenge at the Crossroads of International Economic and Human Rights Law (Edward Elgar Publishing)
- 22. D. Arnott 2021 'Trade and public health: a lack of coherence and consistency' (for the PETRA network, 9 July 2021) https://petranetwork.org/resources/trade-and-public-health-a-lack-of-coherence-and-consistency/
- 23. M. Porter and M.R. Kramer 2011 'Creating shared value: how to reinvent capitalism and unleash a wave of innovation and growth' *Harv Bus Rev* 89: 62–77 https://hbr.org/2011/01/the-big-idea-creating-shared-value and A. Henriques and J. Richardson (eds) 2014 *The Triple Bottom Line. Does it all Add Up?* (1st edn, Routledge)

- 24. ShareAction (undated) 'Healthy Markets Initiative' https://shareaction.org/coalitions-and-networks/healthy-markets-initiative/
- 25. ShareAction 2021 'Tesco makes further health commitments in response to investor engagement' (5 May) https://shareaction.org/tesco-makes-further-health-commitments-in-response-to-investor-engagement/
- 26. The Health Foundation 2021 'Public health grant allocations represent a 24% (£1bn) real terms cut compared to 2015/16' (16 March) https://www.health.org.uk/news-and-comment/news/public-health-grant-allocations-represent-a-24-percent-1bn-cut
- 27. The King's Fund 2021 'Spending on public health' https://www.kingsfund.org.uk/projects/nhs-in-a-nutshell/spending-public-health
- 28. C. Hawkes and C.G. Squires 2021 'A double-duty food systems stimulus package to build back better nutrition from COVID-19' *Nature Food* 2: 212–14 https://doi.org/10.1038/s43016-021-00260-6
- 29. M-L. N. Luong et al. 2020 'The impact of financial incentives on physical activity: a systematic review and meta-analysis' AJPH 35(2): 236–49 https://doi.org/10.1177/0890117120940133 and M.S. Mitchell et al. 2020 'Financial incentives for physical activity in adults: systematic review and meta-analysis' *British Journal of Sports Medicine* 54(21): 1259–68 http://dx.doi.org/10.1136/bjsports-2019-100633
- 30. DHSC 2021 'New specialised support to help those living with obesity to lose weight' (4 March) https://www.gov.uk/government/news/new-specialised-support-to-help-those-living-with-obesity-to-lose-weight
- 31. The Health Foundation 2021 'Public health grant allocations represent a 24% (£1bn) real terms cut compared to 2015/16' (16 March) https://www.health.org.uk/news-and-comment/news/public-health-grant-allocations-represent-a-24-percent-1bn-cut
- 32. S. Thiele and J. Roosen 2018 'Obesity, fat taxes and their effects on consumers' in H. Bremmers and K. Purnhagen (eds), *Regulating and Managing Food Safety in the EU: Economic Analysis of Law in European Legal Scholarship*, vol 6 (Springer, Cham) https://doi.org/10.1007/978-3-319-77045-1 9
- 33. H. Dimbleby et al. 2021 Food Strategy Independent Review The Plan https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National-Food-Strategy-The-Plan.pdf
- 34. The National Food Strategy Plan also calls for a salt levy of £6 per kilogram to accompany the sugar levy, estimated to lead to an average fall of 8–25% a day in salt consumption, with significant improvement to health as a consequence (pp. 195–6).
- 35. R. Griffith et al. 2021 *The Impact of a Tax on Added Sugar and Salt* (Institute of Fiscal Studies Working Paper 21/21) https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/WP202121-The-impact-of-a-tax-on-added-sugar-and-salt.pdf
- 36. Note 63 to Recommendation 1 of the National Food Strategy Plan notes: 'This analysis carries significant uncertainty and does not include all obesity-related conditions, e.g. stroke, so benefits are anticipated to be an underestimate' full model details at DHSC 2018 *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
- 37. H. Dimbleby et al. 2021 Food Strategy Independent Review The Plan https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National-Food-Strategy-The-Plan.pdf, p. 195
- 38. C. Knai et al. 2018 'The Public Health Responsibility Deal: using a systems-level analysis to understand the lack of impact on alcohol, food, physical activity, and workplace health sub-systems' *Int J Environ Res Public Health* 15(12): 2895 https://doi.org/10.3390/ijerph15122895
- 39. 'Healthier Catering Commitment' (launched 2011 in London) https://healthiercateringcommitment.co.uk/
- 40. M. White et al. 2020 'What role should the commercial food system play in promoting health through better diet?' *BMJ* 368: m545 https://doi. org/10.1136/bmj.m545 and see Impact on Urban Health 2020 'Creating a venture fund for healthy food start-ups' https://urbanhealth.org.uk/partnerships/current-partnerships/creating-a-venture-fund-for-healthy-food-start-ups
- 41. Department of Environment, Food and Rural Affairs 2020 Farming for the Future Policy and Progress Update https://assets.publishing.service. gov.uk/government/uploads/system/uploads/attachment_data/file/868041/future-farming-policy-update1.pdf and HM Government 2013 A UK Strategy for Agricultural Technologies https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/227259/9643-BIS-UK Agri Tech Strategy Accessible.pdf
- 42. Sustrans 2020 'A green and just recovery: healthier places and better transport' (Life after lockdown: briefing paper 3A) https://www.sustrans.org.uk/media/6910/life-after-lockdown-briefing-paper-3-a-green-and-just-recovery.pdf



6. The environment around us

This chapter looks at why 'place' matters: how the design of the places where we spend time, and what is available in those places, influence our health.

Our vision

Everyone lives, works, learns and plays in environments in which access to healthier food is the most convenient and the default option, and in surroundings that support being physically active.

Rationale for action

The impact of the environment on health

The places in which we live, work, learn and play shape our lives, but often fail to support our health. Being healthy should never have to rely on conscious choice: it should be the norm. Far too often, healthy food is not readily available, active travel options are perceived as being time-consuming, unsafe or expensive, and our surroundings do not facilitate or promote physical activity, severely constraining the decisions people make about their everyday lives.

'I feel like fast food is easier to obtain than healthy foods. It's an enormous effort to eat healthy food, so some people would then go for a fast-food option over a healthy option, just because it's easier, not because they want to'

- participant in the insight panel

However, where healthier food options are readily available and affordable, they are taken up; where there is investment in active travel infrastructure and attractive environments, people switch out of their cars and away from their screens.²

'Environments can have a much larger impact on our behaviour than any intention we might have to change our behaviours...it's too hard to swim against the tide.'

Professor Dame Theresa Marteau

Local and national governments hold the levers of change that can be used to create environments that actively and equitably enable health, with an additional onus on the commercial sector actively to support this change, including in workplaces.

Benefits beyond healthy weight

Responsibility for shaping a health-promoting environment spans multiple local and national government departments and agencies beyond those with responsibility for health – including transport, leisure, education and planning departments – with the result that clear co-benefits with other government priorities are not always considered, despite the efforts of public-health teams. Recommendations in this chapter have implications beyond healthy weight promotion, aligning with other priorities such as the climate emergency (particularly Net Zero commitments),³ air pollution (which is itself linked with obesity),⁴ equality (including the levelling-up agenda and the Sustainable Development Goals) and resilience against Covid-19 and future pandemics.

Since the 1950s, innovation has prioritised convenience over health, with car ownership taking precedence over more active forms of travel and more convenient (fast) food becoming more popular, without a full appreciation of the negative consequences. Many people are now dependent on car use⁵ – for instance, where new developments are built that do not have amenities nearby and require people to drive,⁶ despite evidence that walkability adds value to developments.⁷

Health inequalities are perpetuated and reinforced by the environments in which we live,⁸ with evidence showing that more deprived communities in the UK have poorer quality environments that negatively affect health:

Research reliably documents that outlets selling unhealthy commodities⁹ in the UK are more numerous in areas of greater deprivation¹⁰

 including a higher density of fast-food establishments,¹¹ which often sell foods high in fat, sugar, salt and overall calories.¹² This adds to inequity in physical and economic access to unhealthy foods (see also chapters 4 and 5)¹³ and to poor outcomes related to weight. Children who spend time in these neighbourhoods tend to eat more fast food and

have higher levels of obesity.¹⁴ A 2018 study also showed that the proportion of fast-food outlets in a neighbourhood is positively associated with obesity in adults, independently of the income of the adult.¹⁵ An association was found in 2011¹⁶ between areas of high deprivation and a greater concentration of advertisements for unhealthy products – an association confirmed in a recent study.¹⁷

 People living in the most deprived urban areas tend to have the least access to green or blue¹⁸ spaces¹⁹ and people from ethnic minority populations are twice as likely as white populations to live in areas that have the least green space.²⁰

However, despite social inequity being an important characteristic of the built environment that influences weight, it is rarely assessed in systematic reviews.²¹

'A chicken shop is located down the street from every secondary school where I live. It's like they specifically pick those locations because they know students will be hungry after school and they will have at least £1 to spend on chips or chicken'

- participant in youth focus group

Creating a health-enabling environment: local communities

The evidence is very clear that there is much that can be done to create healthier environments that promote healthy weight. Ensuring good local availability of healthy food compared to unhealthy food in convenience stores can help to direct food choices and reduce inequalities, ²² particularly among those who are least able to travel to supermarkets, such as older people, those with disabilities and those without access to a car or to affordable and convenient public transport. ²³

Some local authorities have introduced 'fast food exclusion zone policies', restricting new hot food takeaways from opening close to areas where children

congregate such as schools, parks and leisure centres.²⁴ This approach may not be appropriate in all local contexts and does not address unhealthy food purchasing from retail outlets for example, but may bring additional co-benefits such as reduction in traffic and litter. The Local Authority Declaration on Healthy Weight has also presented many local authorities with an opportunity to lead local action and demonstrate good practice in adopting a systems approach to promote healthy weight.²⁵

There is growing interest in the potential of policy levers to restrict children from purchasing unhealthy food. The UK Government announced plans in 2019 to restrict

shops from selling energy drinks to children aged under 16 although, to date, no further detail on timelines or implementation have been published. Internationally, several states in Mexico have introduced policies to restrict retailers selling sugary drinks and processed foods to unaccompanied children.²⁶

More diverse land-use mix²⁷ and residential green space²⁸ have also been shown to be associated with higher physical activity and lower levels of obesity²⁹ – and this association is strongest in low socioeconomic groups, who would most benefit but who also have the least access to urban green spaces.

'Running in the evenings by the river is really nice but it is terrifying and it's a big task for me to convince my parents to let me run by the river... I feel what the girls are saying about there not being enough options for females to keep fit while keeping up with normal lifestyles and responsibilities'

– Participant in youth focus group

Active travel has a demonstrable effect on wellbeing: analysis has shown that that 34% of public transport users achieve 30 minutes or more a day of physical activity as part of their journey,³⁰ and that an active commute is associated with lower obesity rates.³¹

Active-travel provision can be ratcheted up when there is the political and public will to do so, as local governments' rapid response to Covid-19 demonstrated. A study that combined data from bicycle counters with pop-up bike-lane projects from 106 European cities found that an average of 11.5km of provisional bike lanes were built in each city within four months, resulting in cycling increasing by between 11% and 48%.³² Retaining these gains, the authors estimate, could generate between \$1 billion and \$7 billion in health benefits per year across all the cities. However, there has been significant pushback from some quarters against the changes,³³ which highlights the need for continued, positive public engagement on the evidence of the benefits of these changes to health and economic development.³⁴

Creating a health-enabling environment: institutions

Changing the environment in institutional settings – workplaces, early years settings, schools, care settings, prisons and hospitals – can provide an opportunity to help normalise behaviours outside the home environment that will support healthy weight and broader health outcomes, such as a healthy diet and being physically active. Such institutions are crucial places in which to address health and wellbeing, as many people spend significant proportions of their lives in these environments.

Food standards can have an important impact on the diet and health of those in these institutional settings. Children are in school for around 190 days of each year and 602 million school lunches were served in 2013,35 so the quality of the food in schools (whether served or brought in), and the overall environment created by the school, can play a significant role in establishing positive relationships with food and physical activity. The availability of unhealthy or healthier food and drinks in school and early years settings may affect children's dietary behaviours,³⁶ with stronger evidence for a positive impact in primary schools, perhaps because older children in secondary schools have greater autonomy to buy food outside school.³⁷ There is some indication that healthy school meal provision may disproportionately advantage adolescents from lower socioeconomic backgrounds, thus potentially mitigating income-related disparities in dietary intake.³⁸ Research studies from outside the

UK suggest that schools that do have a healthy food environment (such as providing healthy lunch menus and only selling healthy foods and drinks) are more likely to have children who are a healthy weight.³⁹ UK studies have also shown some evidence that the food and physical activity environment in schools have an impact on children's weight status.⁴⁰

School Food Standards are in force in each of the four nations of the UK. These set out the types of food and drink that should be served in most state schools, and should be regularly updated to ensure they reflect the most recent nutrition guidance. However, these are not compulsory in non-state schools and many Academies, and compliance is not robustly monitored. A 2019 investigation by the Soil Association found that an estimated 60% of secondary schools in England are non-compliant. 41 In addition, a study by the Guy's and St Thomas' Charity in the London borough of Southwark in 2019 found that, even where school lunch menus are theoretically compliant, the foods children actually choose to eat are often the less healthy options, which sit next to the healthier options.⁴² Around half of primary school children bring a packed lunch to school, and evidence shows that these tend to be poorer quality than school meals due to higher levels of sugary and high-fat food and lower levels of fibre, protein and vegetables.⁴³

"Schools are an opportunity to provide a healthpromoting environment, but they must have the right resource and support in place."

Professor Peymané Adab

While voluntary guidance is available for early years settings in England, there are currently no regulated standards. Surveys indicate that nurseries serve insufficient vegetables, pulses and oily fish, and serve too many processed foods high in fat and sugar.⁴⁴

141 million in-patient meals were served by the NHS in 2018–19,⁴⁵ and food standards for health settings (such as hospitals) are included in the NHS standard contract and are compulsory, with around 90% reported compliance. However, there is concern that current monitoring processes are not sufficiently robust, meaning actual compliance is likely to be much lower.⁴⁶

Scotland has successfully achieved improvements in the retail offerings within healthcare settings. The Healthcare Retail Standard (HRS) applies to both the provision and promotion of food within shops selling food and drink in NHS buildings. The rules state that half of all food and 70% of all drinks provided in shops must comply with the HRS criteria and only products that comply can be promoted. Excluded from HRS criteria are unhealthy foods such as chocolate, cakes and sugary drinks as well as savoury food high in fat, sugar or salt. By mid-2017 almost 100% of premises were complying.⁴⁷

The latest major review on the nutritional quality of food in prisons was undertaken in 2016, with the inspectors concluding that, too often, the quantity and quality of the food provided is insufficient, and the conditions in which it is served and eaten undermine respect for prisoners' dignity.⁴⁸

When it comes to food in public-sector environments and workplaces, all central government departments and their agencies are required to comply with the UK-wide

Government Buying Standards for Food and Catering Services (GBSF), as are prisons, the armed forces and the NHS. The wider public sector is encouraged to apply these standards, including to food and drink offered in vending machines (for example in leisure centres). The GBSF currently includes mandatory nutrition standards to reduce the intake of salt, sugar and saturated fat and to increase consumption of fruit, vegetables, fish and fibre. It also includes voluntary best practice nutrition standards that cover availability and/or portion size of soft drinks, confectionery, savoury snacks, calorie/allergen labelling and menu analysis. ⁴⁹ These standards are not monitored or enforced in any meaningful way.

There is also clear and growing evidence on the benefit of physical activity to children's health and wellbeing,50 including raised academic achievement and cognitive performance (concentration and memory),⁵¹ development of life skills and increased emotional wellbeing of young people. The CMOs recommend that schools be responsible for delivering 30 minutes of the recommended hour of physical activity that each child should have daily.⁵² However, Sport England data suggests that just 40% of children and young people do an average of 30 minutes or more a day at school,53 and the Youth Sports Trust notes that almost 50,000 hours of curriculum time for PE have been lost since 2010 and a loss of 2,500 PE teachers.⁵⁴ However, there are multiple opportunities to take a 'whole-school approach' and increase physical activity through the day, including during lesson time (both formal PE and initiatives that build activity throughout the school day⁵⁵), at break time, and through active travel to and from school, nursery or college. 56

Workplaces also provide opportunities for physical activity, as most adults spend at least one third of their day at work⁵⁷ – although this may change as some workplaces shift to hybrid models split between home and workplace in the wake of Covid-19.

Action needed to reach the vision

Action must bring together what is currently a fragmented policy space, affording due prominence to the links between planning, health and inequalities, sand following through on existing commitments. Each environment-level change may have a relatively small effect on individuals, but the policies combined then act synergistically, particularly when linked to an implementation plan with appropriate funding, monitoring and action. 59 There are roles for many

stakeholders to be involved, including government departments such as the Ministry of Housing, Communities and Local Government, the Department of Transport and Department for Work and Pensions, for health authorities including directors of public health, the NHS and integrated care systems, and the HSE and local authorities.

Urgent action is needed across many of the environmental determinants of health highlighted in this chapter.

- There is a significant opportunity for the Government to take a much stronger lead on developing, monitoring and enforcing robust standards and regulation to direct the procurement of healthy and sustainable food offers, based on the latest evidence.60 Food-buying standards should be developed, updated and required for food served and distributed in all public-sector environments and all organisations receiving public money (including all schools, early years settings, care homes, prisons and hospitals). Healthy food-buying standards in the private sector could also be required by the HSE, with a requirement to monitor and report on implementation. Explicit oversight and enforcement of the implementation of these standards should be assigned to statutory regulators, HSE or the FSA.
- Effective delivery of a whole-school approach to **physical activity** – including PE, physical activity during the day, school sport and encouraging active travel to school, nursery and college – has wide cobenefits. Schools are under increasing pressures in all areas of the curriculum, but physical activity is essential for good health and wellbeing, and schools must be supported to take a holistic approach to physical activity provision across the day, over and above scheduled PE classes. This requires sustained funding (estimated as £350 million by the Youth Sport Trust) for sport and physical activity in all statefunded primary and secondary schools (including special and pupil referral units), with Ofsted mandated to evaluate accountability, the quality of the approach and its impact.
- Placing the public's health at the heart of all planning and licensing decisions is essential. A key part of facilitating this would be for **national and local** planning and licensing policies to incorporate a strong upfront declaration of principle that a primary purpose of planning is to support public health through the creation of healthier places and reduction of **inequalities**, accompanied by a statement concerning who is accountable for this and how it should be monitored. This has been a consistent recommendation by various Health Select Committee inquiries into childhood obesity. Local planning departments and their public health departments are often managing competing priorities and are under-resourced, so their funding must be sufficient to ensure the effective implementation of this declaration.

 Planning and licensing at the interface between national, regional and local decision-making. This must be developed in conjunction with local publichealth departments and leaders in health and social care, and requires a system-wide approach, bringing together coherent public transport, walking and cycling strategies, with economic growth and infrastructure development.

'Planning is given relatively little attention, even when it comes to climate change – but it has tremendous power to benefit public health'

- Professor Dame Anne Johnson
- This renewed appreciation of the fundamental importance of planning and licensing to health would create an environment within which local authorities can more easily take action to effect whole systemwide change, for example:
 - requiring all planning applications for new developments to have explicit active travel plans;
 - development of 20-minute neighbourhoods where most of people's daily needs can be met within a short walk or cycle;
 - restricting granting or renewal of licences for establishments selling unhealthy food and use of exclusion zones to limit fast-food takeaways around schools, parks and leisure centres;
 - developing local food growing and urban agriculture (potentially taking advantage of the UK's exit from the European Union – see box 9, chapter 5) to boost local economies as well as improve understanding of food production and increase access to healthy foods;
 - investing in active travel and consolidating the rapid advances made on active travel infrastructure during Covid-19 in many of the UK's towns and cities – a unique moment for long-term positive change.
- Physical activity infrastructure must support those not only already active but also the most vulnerable, including the pedestrian environment⁶¹ (street-lights, safe roads, maintained pavements) and the cycling environment (bike lanes and safe storage, for example at public-transport hubs). Innovative play and leisure environments in green/blue spaces require maintenance (including readily accessible benches and toilets: spending on public toilets has declined by 50% in 10 years⁶²) to enable informal play along with more formal physical activity opportunities such

- as football matches and mass participation events like Parkrun. Local authorities need to be adequately funded to ensure provision and maintenance of local environments to promote physical activity.
- The statement and prioritisation of the role of place-shaping in public health should be supported by efforts to increase awareness among built-environment specialists (planners, architects, and highway and transport engineers) and across local government of the role of the built environment as part of the wider determinants of health and its potential to help reduce health inequalities and facilitate healthy weight.⁶³ This could be delivered through new training, curricula, continuing professional development and professional guidance such as the reiteration in 2020 by the Institution of Civil Engineers that highway engineers must stop using outdated and illegal guidance that prioritises vehicles over active-travel options.⁶⁴
- The proposal made by the UK Government in 2019 to restrict shops from selling energy drinks to under-16s is a new potential policy lever to restrict children from purchasing unhealthy food. To date, however, no further detail on timelines or implementation have been published.

There is a need for further policy development and research to inform effective future interventions that could better ensure that the environment promotes a healthy weight.

- four nations,⁶⁵ but without the action or funding to match: in August 2020, £27 billion was announced as to be spent on roads in England, for example,⁶⁶ compared with £5 billion in total for walking, cycling and buses,⁶⁷ and just £3.1 billion for the entire proposed public health budget for 2020/21.⁶⁸ By using tools that can estimate the health savings over time (such as the World Health Organization's HEAT tool⁶⁹), the positive externalities for health and wellbeing could be routinely factored into transport and planning funding decisions. (Chapter 5 also notes the relevance of fiscal measures that can be taken to encourage active travel, which is particularly relevant as local authority budgets are increasingly stretched.)
- Further research is needed to understand how employers can support employees to be physically active through their workday. Workplace active travel policies can also be encouraged by the UK Government, using tools such as the Cycle to Work scheme.⁷⁰

Further policy development is needed to explore
the impact of policies to reduce the proliferation
of food outlets, and accessibility of unhealthy food
and drink (particularly to older children). This could
include the potential impact of licensing on retailers
selling unhealthy products or curbing the hours when
products could be sold.

Responsibility Recommendations Follow up the commitment made to limit children's access to unhealthy drinks with new **DHSC** restrictions on sales of energy drinks to children under 16. Update food and buying standards to reflect dietary guidance and ensure they are Standards development robustly applied and monitored in multiple settings. led by DHSC This should include: Application of food standards and buying standards policies to early years Role for all government settings, all schools, healthcare settings, prisons, public sector workplaces; and any departments to assign company receiving public funds. enforcement Mandate monitoring and enforcement by relevant statutory bodies or FSA Require the Health and Safety Executive to apply and monitor standards for private sector workplaces. Support schools to provide opportunities to be physically active: DfE, HMT Mandate Ofsted to evaluate primary and secondary schools on their approach to taking a whole school approach to building in opportunities for structured and unstructured physical activity across the day. Maintain at least £350m/year investment into PE, school sport and physical activity across all state schools and link to national targets for children's physical activity to ensure accountability. Provide and maintain local environments that promote physical activity. Local authorities Update training for planners and other built environment specialists to include **Professional institutes** modules on healthy place-making, providing an understanding of the role of the built environment as part of the wider determinants of health and its potential to help reduce - or exacerbate - health inequalities Update national planning and licensing policies to explicitly state that a primary MHCLG, DHSC purpose of the planning system is to create places in which people of all ages, abilities and financial means can live safe, active healthy lives, including objectives to reduce health inequalities and address public health priorities such as healthy weight. Explore new policy approaches to reduce the accessibility of unhealthy food and drink, **DHSC** particularly to older children. This should include the potential impact of licensing on retailers or curbing the hours when particular products could be sold.

Further research into effective approaches to support physical activity in the workplace.

Research funders

References

- 1. J. Ige-Elgebede et al. 2020 'Designing healthier neighbourhoods: a systematic review of the impact of the neighbourhood design on health and wellbeing' Cities & Health 0: 1–16 https://doi.org/10.1080/23748834.2020.1799173
- 2. For physical activity's contribution to the prevention of a wide range of physical and mental-health conditions at all ages, including obesity, and its associated wider benefits for quality of life, see chapter 1, box 3.
- 3. B.A. Swinburn et al. 2019 *The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission Report*, The Lancet 393(10173): 791–846 https://doi.org/10.1016/S0140-6736(18)32822-8
- 4. R. An et al. 2018 'Impact of ambient air pollution on obesity: a systematic review' *Int J Obes* 42: 1112–26 https://doi.org/10.1038/s41366-018-0089-y
- 5. Transport for New Homes 2020 *Garden Villages and Garden Towns: Visions and Reality* https://www.transportfornewhomes.org.uk/wp-content/uploads/2020/06/garden-village-visions.pdf
- 6. For example, the concept of '20-minute neighbourhoods', where everything is within a few minutes' walk or cycle, is gathering traction internationally: TCPA is leading a coalition supporting the introduction of these in the UK: TCPA 2021 *The 20-Minute Neighbourhood* https://www.tcpa.org.uk/the-20-minute-neighbourhood
- The Princes' Foundation 2020 Walkability and Mixed-Use: Making Valuable and Healthy Communities https://princes-foundation.org/journal/walkability-report
- 8. A. Power et al. 2009 Strategic Review of Health Inequalities in England Post-2010: Task Group 4: The Built Environment and Health Inequalities https://www.instituteofhealthequity.org/resources-reports/built-environment-task-group-report
- 9. Tobacco, alcohol and betting shops, as well as fast food.
- 10. L. Macdonald et al. 2018 'Do "environmental bads" such as alcohol, fast food, tobacco, and gambling outlets cluster and co-locate in more deprived areas in Glasqow City, Scotland?" *Health & Place* 51: 224–31 http://doi.org/10.1016/j.healthplace.2018.04.008
- 11. Public Health England 2018 'Fast food outlets: density by local authority in England' https://www.gov.uk/government/publications/fast-food-outlets-density-by-local-authority-in-england
- 12. A.Jaworowska et al. 2014 'Nutritional composition of takeaway food in the UK' Nutr: Food Sci. 44: 414-30 https://doi.org/10.1108/NFS-08-2013-0093
- 13. T. Lang and M. Heasman 2016 Food Wars (Routledge)
- 14. C. Turbutt et al. 2019 'The impact of hot food takeaways near schools in the UK on childhood obesity: a systematic review of the evidence' *J Public Health* (Oxf) 41: 231–9 http://doi.org/10.1093/pubmed/fdy048
- 15. T. Burgoine et al. 2018 'Examining the interaction of fast-food outlet exposure and income on diet and obesity: evidence from 51,361 UK Biobank participants' *Int J Behav Nutr Phys Act* 15: 71 https://doi.org/10.1186/s12966-018-0699-8
- 16. J. Adams et al. 2011 'Socio-economic differences in outdoor food advertising in a city in Northern England' *Public Health Nutrition* 14(6): 945 50 https://doi.org/10.1017/S1368980010003332
- 17. G. Palmer et al. 2021 'A deep learning approach to identify unhealthy advertisements in street view images' *Sci Rep* 11: 4884 https://doi.org/10.1038/s41598-021-84572-4
- 18. Blue spaces are areas dominated by bodies of water, such as rivers, ponds, lakes or the sea.
- 19. Groundwork 2021 Out of Bounds: Equity in Access to Urban Nature An Overview of the Evidence and what it means for the Parks, Green and Blue Spaces in our Towns and Cities https://www.groundwork.org.uk/about-groundwork/reports/outofbounds
- 20. O.R. Molaodi et al. 2012 'Neighbourhood food and physical activity environments in England, UK: does ethnic density matter?' *Int J Behav Nutr Phys Act* 9: 75 https://doi.org/10.1186/1479-5868-9-75
- 21. T.M. Lam et al. 2021 'Associations between the built environment and obesity: an umbrella review' *Int. J. Health Geogr.* 20 https://doi.org/10.1186/s12942-021-00260-6
- 22. G.J. Hollands et al. 2019 'Altering the availability or proximity of food, alcohol, and tobacco products to change their selection and consumption' *Cochrane Database Syst Rev* 8: CD012573 https://doi.org/10.1002/14651858.CD012573.pub2
- 23. S. Williamson et al. 2017 'Deprivation and healthy food access, cost and availability: a cross-sectional study' *J Hum Nutr Diet* 30: 791–9 https://doi.org/10.1111/jhn.12489
- 24. M. Keeble et al. 2019 'How does local government use the planning system to regulate hot food takeaway outlets? A census of current practice in England using document review' *Health and Place* 57: 171–8 https://doi.org/10.1016/j.healthplace.2019.03.010
- 25. Food Active (undated) 'Local Authority Declaration on Healthy Weight' https://foodactive.org.uk/what-we-do/influence-policy/local-authority-declaration-on-healthy-weight/
- 26. Washington Post 2020 'Mexico moves to ban junk food sales to children, citing obesity as coronavirus risk factor' (19 August) https://www.washingtonpost.com/business/2020/08/19/mexico-kids-junk-food-ban/
- 27. B.N. Dixon 2020 'Associations between the built environment and dietary intake, physical activity, and obesity: a scoping review of reviews' *Obes Rev* 22(4): 13171 https://doi.org/10.1111/obr.13171
- 28. C. Sarker 2017 'Residential greenness and adiposity: findings from the UK Biobank' *Environ. Int.* 106: 1–10 https://doi.org/10.1016/j. envint.2017.05.016
- 29. B.N. Dixon 2020 'Associations between the built environment and dietary intake, physical activity, and obesity: a scoping review of reviews' Obes Rev 22(4): 13171 https://doi.org/10.1111/obr.13171 and T.M. Lam et al. 2021 'Associations between the built environment and obesity: an umbrella review' *Int. J. Health Geogr* 20 https://doi.org/10.1186/s12942-021-00260-6

- 30. R. Patterson et al. 2019 'Physical activity accrued as part of public transport use in England' *J. Public Health* 41: 222–30 https://doi.org/10.1093/pubmed/fdy099
- 31. For the impact on obesity of active travel on middle-aged adults, see E. Flint et al. 2016 'Change in commute mode and body-mass index: prospective, longitudinal evidence from UK Biobank' *Lancet Public Health* 1: e46–55 https://doi.org/10.1016/S2468-2667(16)30006-8
- 32. S. Kraus and N. Koch 2021 'Provisional COVID-19 infrastructure induces large, rapid increases in cycling' *PNAS* 118(15): e2024399118 https://doi.org/10.1073/pnas.2024399118
- 33. M. Nieuwenhuijsen 2020 Covid19 and the City: The Covid19 Pandemic and the Transformation of the City (independently published)
- 34. H. Pineo and G. Moore 2021 'Built environment stakeholders' experiences of implementing healthy urban development: an exploratory study' *Cities & Health* 0: 1–15 https://doi.org/10.1080/23748834.2021.1876376
- 35. H. Dimbleby and J. Vincent 2013 The School Food Plan http://www.schoolfoodplan.com/plan/
- 36. E. Pineda et al 2021 'Improving the school food environment for the prevention of childhood obesity: what works and what doesn't 'Obesity Reviews 22(2): e13176 https://doi.org/10.1111/obr.13176
- 37. S. Spence et al. 2013 'The impact of food and nutrient based standards on primary school children's lunch and total dietary intake: a natural experimental evaluation of government policy in England' *PLoS One* 8: e78298 https://doi.org/10.1371/journal.pone.0078298
- 38. J.D. Mackenbach et al. 2019 'A systematic review on socioeconomic differences in the association between the food environment and dietary behaviors' *Nutrients* 11(9):2215 https://www.doi.org/10.3390/nu11092215
- 39. H.L. Gray et al 2019 'School-level factors associated with obesity: a systematic review of longitudinal studies' *Obes Rev* 20: 1016–32 http://doi. org/10.1111/obr.12852 and C. Fitzpatrick et al. 2017 'School food environments associated with adiposity in Canadian children' *Int J Obes* 41: 1005–10 https://doi.org/10.1038/ijo.2017.39
- 40. A.M. Siega-Riz et al. 2011 'The effects of the HEALTHY study intervention on middle school student dietary intakes' *Int J Behav Nutr Phys Act* 8:7 https://doi.org/10.1186/1479-5868-8-7
- 41. Soil Association 2019 State of the Nation: Children's Food in England 2019 https://www.foodforlife.org.uk/~/media/files/sotn/sotn_2019.pdf
- 42. Guy's and St Thomas' Charity Serving Up Children's Health: Opportunities and Barriers in the School Food System to Prioritise Nutritious Food for our Young People 2020 https://www.gsttcharity.org.uk/sites/default/files/30-GSTC-%20Schools-min.pdf
- 43. C.E.L. Evans et al. 2020 'A repeated cross-sectional survey assessing changes in diet and nutrient quality of English primary school children's packed lunches between 2006 and 2016' BMJ Open 10: e029688. https://doi.org/10.1136/bmjopen-2019-029688
- 44. V. Er et al. 2018 'Association of diet in nurseries and physical activity with zBMI in 2-4-year olds in England: a cross-sectional study' *BMC Public Health* 18: 1262 http://doi.org/10.1186/s12889-018-6138-6 and S.E.B. Neelon et al. 2015 'Nutrition practices of nurseries in England: comparison with national guidelines' *Appetite* 85: 22-9 https://doi.org/10.1016/j.appet.2014.11.002
- 45. HS Digital 2019 'Estates Returns Information Collection summary page and dataset for ERIC 2018/19' https://digital.nhs.uk/data-and-information/publications/statistical/estates-returns-information-collection/england-2018-19
- 46. DHSC 2020 Report of the Independent Review of NHS Hospital Food https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/929234/independent-review-of-nhs-hospital-food-report.pdf
- 47. NHS Health Scotland 2019 Evaluation of the Implementation and Impact of the Healthcare Retail Standard in Scottish Hospitals and other NHS Facilities in 2017 http://www.healthscotland.scot/media/2326/evaluation-of-the-healthcare-retail-standard.pdf
- 48. HM Inspectorate of Prisons 2016 *Life in Prison: Food A Findings Paper by HM Inspectorate of Prisons* https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2016/09/Life-in-prison-Food-Web-2016.pdf
- 49. Defra 2015 'Sustainable procurement: the GBS for food and catering services' https://www.gov.uk/government/publications/sustainable-procurement-the-gbs-for-food-and-catering-services
- 50. VJ. Tremblay et al. 2016 'Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep' Appl Physiol Nutr Metab 41(6 Suppl 3): S311–27 https://doi.org/10.1139/apnm-2016-0151 and W.B. Strong et al. 2005 'Evidence based physical activity for school-age youth' J Pediatr. 146(6): 732–7 https://doi.org/10.1016/j.jpeds.2005.01.055
- 51. C.N. Rasberry et al. 2011 'The association between school-based physical activity, including physical education, and academic performance: a systematic review of the literature' *Prev Med* 52 Suppl 1: S10–20 http://doi.org/10.1016/j.ypmed.2011.01.027 and S.L. Michael et al. 2015 'Critical connections: health and academics' *Journal of School Health* 85(11): 740–58 https://doi.org/10.1111/josh.12309
- 52. UK Government 2019 School Sport and Activity Action Plan https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/848082/School_sport_and_activity_action_plan.pdf
- 53. Sport England 2019 Active Lives Children and Young People Survey Academic year 2018/19 https://sportengland-production-files.s3.eu-west-2. amazonaws.com/s3fs-public/active-lives-children-survey-academic-year-18-19.pdf
- 54. Youth Sport Trust 2020 'Well Schools: special edition' (autumn) https://www.youthsporttrust.org/media/iznc5rew/yst-inspire-autumn-2020-final-reva.pdf
- 55. K. Breheny et al. 2020 'Effectiveness and cost-effectiveness of The Daily Mile on childhood weight outcomes and wellbeing: a cluster randomised controlled trial' *Int J Obes* 44: 812–22 https://doi.org/10.1038/s41366-019-0511-0
- 56. PHE 2020 What Works in Schools and Colleges to Increase Physical Activity? https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/876242/Guidance_to_increase_physical_activity_among_children_and_young_people_in_schools_and_colleges.pdf
- 57. S. Abdin et al. 2018 'The effectiveness of physical activity interventions in improving well-being across office-based workplace settings: a systematic review' *Public Health* 160: 70–6 https://doi.org/10.1016/j.puhe.2018.03.029

- 58. For example, the latest Welsh planning policy, Future Wales: The National Plan 2040 (https://gov.wales/future-wales-national-plan-2040) places creating healthy places prominently at the start; Scotland is showing signs of greater recognition of this as a priority and a Position Statement ahead of the publication of the new Fourth National Planning Framework indicates that it will incorporate national public health priorities (26 November 2020: https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/documents/); but England's policy (https://www.gov.uk/government/publications/national-planning-policy-framework--2) places paragraphs on health lower down, with the economy as the clear priority.
- 59. WHO 2018 Global Nutrition Policy Review 2016–2017: Country Progress in Creating Enabling Policy Environments for Promoting Healthy Diets and Nutrition https://www.who.int/publications/i/item/9789241514873
- 60. WHO 2021 'WHO urges governments to promote healthy food in public facilities' (12 January) https://www.who.int/news/item/12-01-2021-who-urges-governments-to-promote-healthy-food-in-public-facilities
- 61. J.L. Naser 2015 Creating Places that Promote Physical Activity: Perceiving is Believing https://activelivingresearch.org/creating-places-promote-physical-activity-perceiving-believing
- 62. D. Fenney 2019 'A lav affair: do we care enough about public toilets?' https://www.kingsfund.org.uk/blog/2019/04/do-we-care-enough-public-toilets
- 63. H. Pineo and G. Moore 2021 'Built environment stakeholders' experiences of implementing healthy urban development: an exploratory study' Cities & Health 0: 1–15 https://doi.org/10.1080/23748834.2021.1876376
- 64. Institution of Civil Engineers 2020 Street Design Standards Current and Withdrawn Practice: Briefing Sheet 2020 https://www.udg.org.uk/publications/manuals/street-design-standards
- 65. For example, Department for Transport 2020 *Gear Change: A Bold Vision for Cycling and Walking* https://www.gov.uk/government/publications/cycling-and-walking-plan-for-england
- 66. Highways England 2020 £27 billion roads investment to support 64,000 jobs' (21 August) https://www.gov.uk/government/news/27billion-roads-investment-to-support-64000-jobs
- 67. Department for Transport et al. 2020 '£2 billion package to create new era for cycling and walking' (9 May) https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking
- 68. King's Fund 2019 'Spending on public health' (29 January) https://www.kingsfund.org.uk/projects/nhs-in-a-nutshell/spending-public-health
- 69. T. Götschi et al. 2020 'Integrated impact assessment of active travel: expanding the scope of the Health Economic Assessment Tool (HEAT) for walking and cycling' *International Journal of Environmental Research and Public Health* 17: 7361 https://doi.org/10.3390/ijerph17207361
- 70. Department for Transport 2019 *Cycle to Work Scheme Guidance for Employers* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/845725/cycle-to-work-guidance.pdf



7. Advertising and promotions

Our vision

All food and drink advertising and promotions support and encourage diets that benefit the health and wellbeing of children and adults.

This means phasing out highly influential and pervasive advertising and other promotions for unhealthy food and drinks across settings of all kinds.

Rationale for action

Food advertising and promotions form key elements of the 'marketing mix' set out in chapter 3. They actively contribute to complex food and economic systems that negatively influence health via food development, distribution, marketing, preferences, purchasing and eating.¹ This chapter focuses on action needed to address food advertising (in all forms of media including online), sponsorship, and location and price-based promotions.

Over the last two decades, multiple systematic reviews and meta-analyses have unequivocally demonstrated the extent, nature and impact of product and brand food advertising on children.² Unhealthy food advertising typically presents a highly distorted picture of consumption (for example, consequence-free consumption, distorted depictions of the reward and satisfaction that can be achieved), contributes to the normalisation of unhealthy eating,³ and increases recognition of unhealthy brands, as well as increasing children's requests for, purchase and eating of unhealthy food.4 Evidence clearly demonstrates that this causes harm, with advertising and its impact directly linked to childhood obesity and weight gain, as well as a range of NCDs,⁵ and the evidence base for the link between unhealthy food advertising and its detrimental impact on children continues to accumulate.6

'I don't see healthy food getting advertised ever. I don't see ... a box of salad getting advertised or a box of strawberries'

– participant in the insight panel

Advertising exploits the cognitive development of children and adolescents,7 working through emotional and subconscious routes8 – and these risks are magnified by the rise of digital advertising.9 Young children are unable to understand the commercial purpose of advertising and evidence suggests that, although adolescents may have the ability to understand the commercial intent, their developing brains and hormonal changes may cause them to be particularly susceptible to advertising. 10 Children and adolescents¹¹ (and, indeed, adults) may be unable to distinguish advertising from entertainment, and this may be particularly the case when coming from undisclosed sources or from trusted sources, such as from peers or through social media. As a result, children are unable to give fully informed consent to receiving such advertising, even when a consent option is available, which undermines their rights (see box 1, chapter 1).

More recently, evidence is emerging that adults as well as children are negatively affected by food advertising: it is becoming clear that adult exposure to unhealthy food advertising prompts positive attitudes towards the products, increases both consumption intention and consumption, and raises the likelihood of trying a brand's products.¹²

The rapidly changing digital environment and exponential rise of online advertising is also further perpetuating the impact of unhealthy food advertising.¹³ The online space is making this advertising ever more ubiquitous, 14 with research increasingly demonstrating the impact of digital advertising on intended use and consumption of unhealthy food for both children and adults and its consequent harms. 15 Recent advertising techniques, such as social-media influencers, blur the lines between entertainment and advertising, making it increasingly difficult to clearly identify advertising when it occurs. 16 The digital environment also allows for extensive extraction of personal data, leading to profiling of consumers, which in turn allows for more targeted, individualised advertising.¹⁷ This data extraction is theoretically not permitted for children, but is challenging to regulate and enforce in practice.

The current vast amount spent by the food industry on advertising is is evidence of the significant value of advertising as the centre piece of marketing strategies to maximise sales. In 2020 only 2.5% of total UK advertising spend for food and soft drink was devoted to advertising fruit and vegetables compared with 45.9% on soft drinks, confectionery and sweet/savoury snacks. Digital advertising is of particular concern: online advertising spend in the UK is now the third highest in the world (after the United States and China), accounting for 57% (£13.4 billion) of the UK's total ad spend of £23.6 billion in 2018. There was a 450% increase in food and drink online advertising spend between 2010 and 2017 and it is estimated that children in the UK saw a total of at least 15.1 billion HFSS adverts online in 2019.

It is therefore unsurprising that the advertising and promotion of unhealthy food is perceived as a human rights issue. Growing research has shown how such advertising and promotions infringes the UN CRC,²² specifically children's rights to health, food, privacy and freedom from exploitation (box 1, chapter 1).²³ There is also evidence that advertising is targeted at vulnerable groups across a wide range of media (TV, digital, magazines, billboards etc.),²⁴ including young adults and those of lower socioeconomic status (SES) and from ethnic minorities, contributing to the substantial health inequalities highlighted in chapter 1.

"It is now firmly established that the marketing of unhealthy food to children raises major public health as well as children's rights concerns. The growing and consistent evidence linking such marketing to child obesity and diet related diseases requires that the Government adopt comprehensive restrictions to protect them from infringements to, among others, their rights to health, adequate nutritious food and privacy. The best interests of the child must be a primary consideration."

- Professor Amandine Garde

Sponsorship plays an important role in the delivery of sports events, from high-profile international 'mega events' (such as the Olympic Games) and national events (such as 'The Hundred' cricket competition) to community-based sporting opportunities (including through provision of branded equipment). However, where sports sponsorship is a promotional tool it often serves to undermine public health with advertising for alcohol, gambling and unhealthy food:²⁵ the exposure is likely to create an association between clubs and brand sponsors among fans, with research suggesting that sports sponsorship improves children's opinions of brands.²⁶ There is a mismatch between the sponsorship of the brands and the players, who are portrayed as role models for health.²⁷

It is also evident that restrictions on unhealthy food advertising can have an impact, through limiting either its exposure (the reach and frequency of advertising) or power (its content, design and how it is executed),28 provided that regulations are sufficiently comprehensive and therefore limit the possibility of investment shifts from regulated to unregulated spaces.²⁹ The effective restrictions introduced as part of tobacco-control measures potentially offer many useful lessons. There is also evidence that, once informed on the ways in which advertising techniques can manipulate intention, parents want action to be taken to strengthen regulation.³⁰ Claims that older children can be educated and empowered to resist food advertising are not supported by evidence,³¹ particularly for subtle forms of digital advertising,32 indicating that it is regulation that is needed, rather than more awareness-raising. Furthermore, regulations need to not only focus on restricting product advertising, but also brand advertising, with evidence suggesting that brand advertising has a similar impact as product advertising.³³

In the UK, current restrictions for broadcast (television) advertising are established and enforced by Ofcom and the Advertising Standards Authority (ASA – the self-regulatory organisation of the UK advertising industry). The Committee of Advertising Practice (CAP) and the

ASA have responsibility for non-broadcast advertising, including online.³⁴ The current restrictions on unhealthy food advertising in the media are based on an ineffective regulatory framework and are insufficient to protect adults and children from pervasive advertising, with extensive evidence as to the limitations of such coregulatory and self-regulatory frameworks.³⁵ The current regulatory system has been criticised on many fronts for failing to protect the public from online harm: there is a significant time-lag between complaint and investigation, a lack of transparency in the process (breaches are often informally resolved and such cases are not published), and the available sanctions are not sufficiently punitive to be a deterrent for the companies.³⁶ Previous research has also demonstrated that regulatory systems that rely on industry engagement to establish restrictions do not result in effective regulation to protect consumers: companies shape the regulation to suit their own interests, continuing to put profit-making ahead of public health³⁷ and leading to criticisms of the regulatory systems' independence from industry.³⁸ Furthermore, the current UK regulatory framework could be seen as a mechanism through which industry portrays itself as 'socially responsible' in order to hinder statutory regulation,³⁹ with a major conflict of interest emerging in which industry regulates its own advertising practices of products that have been shown to cause harm.⁴⁰ **The UK** Government must protect the health of the public from commercial interests by adopting comprehensive, legally binding and effectively enforced restrictions on unhealthy food advertising and promotions, 41 ensuring that it upholds the fundamental human rights principles of the 'best interests of the child' as a primary consideration in all policies.42

'You know, they don't do offers on many good items. You don't get two-for-one lettuces.'

- participant in the insight panel

Other promotional strategies are effective tools in the marketing mix. Research shows that consumers often make quick decisions without conscious thought in busy retail environments,⁴³ where location-based or price-based promotions are used to appeal to these elements of unconscious decision-making and increase sales. **Consumer spending on price promotions in the UK is the highest in Europe.** Research for NHS Health Scotland in 2017 suggested that the number of price promotions on healthier and less healthy food appears to be about equal, but promotions on unhealthy products tend to offer greater price discounts or greater product volume for a set cost than do promotion on healthier options

- with the result that the uptake of promotions on the unhealthy food and drink is much higher.44 Multi-buy promotions (including 'Buy One Get One Free', 'X% extra free, and 'X for £Y' offers) are designed to encourage the impulsive purchase of products, or to increase how often products are purchased and/or the volume bought⁴⁵ and tend to be skewed towards unhealthy options (half of chocolate purchased in the UK is on promotion⁴⁶). These promotions are available across retail environments of all sizes, including supermarkets, convenience stores, garage forecourts and non-food retailers⁴⁷ as well as online, and can increase the total amount of household food and drink purchased by around 20% – in other words, these are purchases that people would not make if the price promotions did not exist. 48 Such promotions do not save consumers money in the long term, because people buy more products than they had planned and do not lead to people buying less during subsequent shopping trips.⁴⁹

There is also clear evidence that where retailers place products in their stores has an impact on how likely consumers are to buy them:⁵⁰ increasing the visibility of unhealthy foods in busy, eye-catching locations, such as shop entrances or at the end of aisles, leads to an increase in the sale of the product.⁵¹ This is reflected in brands' competition for these favourable/prime in-store locations, as well as the location of promotions when shopping online. OHA surveys have found location-based promotions to be skewed towards sugary and high-calorie snack foods.⁵²

Price- and location-based promotions are also relevant to the out-of-home sector. A report published by Food Standards Scotland showed that most of the common marketing strategies used by this sector in Scotland were on less healthy products (this research included only a limited sample of brands):⁵³ the most frequently used marketing strategies were price promotions (82% of outlets used this technique), the prominent placement of items near the tills (68% of outlets), and meal deals (64% of outlets).

"The sponsorship of sport by unhealthy food brands remains an area of great concern, whether that be when viewing or partaking in sport. Sport sponsorship by unhealthy food brands should be addressed, with lessons learned from existing restrictions around tobacco."

- Professor Linda Bauld

Action needed to reach the vision

Taken together, the action proposed takes a system-wide approach towards an important aim of this strategy for the next decade: that the UK Government phase out all types of advertising and promotions of unhealthy food and drink in the next five years, with the aim of eliminating such advertising and promotions completely within 10 years.

Urgent action is needed across all areas dealt with in this chapter:

- Restrictions on advertising unhealthy products from categories that contribute to children's excess sugar and calorie intake are due to be introduced in 2022 across the UK, subject to Parliamentary approval, with a 9pm watershed to be applied to all TV channels, regardless of audience size. These new restrictions should be implemented in full and extended to cover all other media where advertising can be time restricted, such as cinema and radio.
- A significant proportion of digital content cannot be restricted to a specific time as it is always available online, and this needs to be tackled as a matter of urgency. The UK Government intends to bring in a ban on paid-for unhealthy product online advertising by the end of 2022⁵⁴ although there are exemptions including brand advertising, owned content (i.e. content appearing on the manufacturer's own digital channels) and advertising by small and mediumsized businesses. Robust monitoring is required to assess the impact of these exemptions, with swift action taken to close emerging loopholes that could undermine the success of the policy.
- From October 2022 new regulations will ban multi-buy promotions and location-based promotions (covering entrances, aisle ends and check-out areas) of some unhealthy food and drinks in outlets and online shops in England.⁵⁵ These plans are welcome, but have some shortfalls that need to be addressed. They only include medium-sized and large outlets, so there is a need to extend to smaller retailers in the future. They also currently do not apply to the OOH sector. The UK Government should extend multi-buy and location restrictions to the out-of-home sector within the next five years.

- A comprehensive approach to outdoor advertising
 (both traditional posters and digital billboards plus
 advertising on transport) is needed to bring it in
 line with the broadcast and digital environment.
 This should be achieved with a total restriction on
 unhealthy food and drink advertising, meaning only
 healthier products are advertised.
 - Advertising for unhealthy foods and drinks was banned on the Transport for London network in 2019. Since the introduction of the restrictions, five local authorities have implemented similar policies (with some building on the original to include other commodities such as alcohol) and other local authorities should follow this example in the short term.
- There is a need to **extend advertising restrictions to** the brands that are associated with predominantly unhealthy products, as well as to the individual unhealthy products themselves: under the forthcoming restrictions, brand advertising will be permitted so long as it does not include identifiable unhealthy products. This will require the development of a new methodology to determine whether brands are associated with HFSS products based on their product portfolios and sales and could build on profiling work undertaken by the Access to Nutrition Initiative to assess the overall nutritional quality of products sold by the 16 largest food and beverage manufacturers operating in the UK. ATNI's UK Product Profile 2021 report analyses data gathered for their Global Index, and uses the Health Star Rating of over 4,000 products to rate the healthiness of each company's portfolio, including levels of saturated fat, salt, sugar, fruit, vegetables and other ingredients.⁵⁶
- New regulation should be introduced to ensure that only healthier food and drink products can be associated with sports sponsorship. This should include: virtual events, e-sports, in-game sponsorship, mega-events, grassroots sports, social responsibility and community programmes run by clubs, leagues and national associations, title sponsorship for cup competitions and leagues, and all sports and events taking place within a school setting. Marketing and promotions related to unhealthy food and drinks in other settings such as sponsorships, giveaways and competitions in schools, family attractions, childcare and other educational establishments should also be restricted.

Restricting the advertising and promotion of unhealthy foods and brands is dependent on a clear understanding and definition of the foods that fall within the restrictions, which relies on a strong, upto-date, publicly available and evidence-informed nutrient profiling model. To achieve this, the latest iteration of the UK Nutrient Profiling Model should be used to guide advertising regulations. Over time, the evidence base for the impact of poor diet on health will continue to increase, including the impact of new advertising trends and techniques. The UK Nutrient Profiling Model should therefore be regularly reviewed and updated by independent experts, with any updates and additions brought promptly into advertising restrictions.

There is a need for further policy development and research to ensure that the advertising and promotions highlighted in this chapter are completely eliminated within 10 years.

- Advertising is dynamic and innovative and there are significant challenges to restrictions on digital marketing. While some online advertising is overt (through company websites or clearly promoted product specific content), it can also be more subtle or covert (such as the use of social media influencers to promote products or brands, often without acknowledgement that it is a paid promotion⁵⁷). Even paid-for advertising cannot be aimed exclusively at adults, because of significant shortcomings both in age-verification processes and in the inaccuracy of interest-based targeting on advertising. In addition, the forthcoming restrictions on online marketing, as noted above, will include a number of exemptions. It is vital that the UK Government continues to fund research to identify and understand the effect of emerging marketing techniques with a particular focus on digital innovation and related potential policy options to swiftly close any loopholes that may emerge.
- Since plans to introduce a ban on multi-buy promotions and location-based promotions were first announced in 2018, some large retailers have switched promotion strategies to focus on price reduction, rather than multi-buys. Further research is needed to understand if price-reduction strategies lead to increased purchasing in the same way as multi-buys, with further regulation needed if this is the case.

The issues with the current self-regulatory system are not unique to unhealthy and food and drink advertising and addressing this is part of the UK Government's wider online harms agenda. More broadly, there is a need to **establish a new** independent regulatory approach that includes the pre-approval of advertising of all types, monitor compliance and sanction non-compliance with **fines.** There should be one body that oversees the regulation of all online harms, including unhealthy food and drink advertising, given the commonality of market and technical challenges to adequately protecting children from harmful advertising and pressures online. In the meantime, the ASA should be mandated to regularly publish all cases of code breach investigations, regardless of outcome, to ensure transparency and enable scrutiny by stakeholders.

Recommendations

Responsibility

Progress legislation to introduce a 9pm watershed on TV and ban of paid-for advertising online for unhealthy food and drink adverts along with new restrictions on multi-buy and location-based promotions on unhealthy food and drinks in retail outlets and online.

DHSC



Introduce next-stage regulation to ensure all advertising and promotion in external settings is for healthier food and drinks.

DHSC, DCMS

This should include:

- Extension of the 9pm watershed on unhealthy food and drinks adverts to cinema and radio.
- Removal of all outdoor advertising for unhealthy food and drinks.
- End marketing and promotions related to unhealthy food and drinks, such as sponsorships, giveaways and competitions in family attractions, childcare and educational establishments.



Extend all existing and new advertising restrictions to adverts for food and drink brands that are associated with predominantly unhealthy products.

DHSC, DCMS



Incentivise a shift to promotions on healthier food and drinks in the out-of-home sector by extending restrictions on multi-buy promotions of unhealthy food and drink products. This should restrict deals including HFSS products, and apply to outlets and online food delivery platforms.

DHSC



Ensure only healthier food and drink products can be associated with sports, with new restrictions to prevent unhealthy products and brands from sports sponsorship of all kinds.

DHSC, DCMS

This should include: virtual events, e-sports, in-game sponsorship, mega-events, grassroots sports, social responsibility and community programmes run by clubs, leagues and national associations plus title sponsorship for cup-competitions and leagues.



Undertake ongoing research into innovations in the digital marketing space to understand the impact of emerging food marketing techniques.

Undertake further research into the impact of price reduction strategies on the purchase of unhealthy products.

Regular reviews to update the nutrient profiling model to reflect the latest dietary guidance.

Research funders



References

- M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' *Global Food Security* 27: 100423 https://doi.org/10.1016/j.gfs.2020.100423 and B. Wood et al 2021 'Market strategies used by processed food manufacturers to increase and consolidate their power: a systematic review and document analysis' *Global Health* 17: https://doi.org/10.1186/s12992-021-00667-7
- 2. E. Boyland et al. 2016 'Advertising as a cue to consume: a systematic review and meta-analysis of the effects of acute exposure to unhealthy food and nonalcoholic beverage advertising on intake in children and adults' *Am J Clin Nutr* 103(2): 519–33 https://doi.org/10.3945/ajcn.115.120022; S.G. Russell et al. 2018 'The effect of screen advertising on children's dietary intake: a systematic review and meta-analysis' *Obesity Reviews* 20(4): 554–68 https://doi.org/10.1111/obr.12812; B. Kelly et al. (2019) 'Global benchmarking of children's exposure to television advertising of unhealthy foods and beverages across 22 countries' *Obesity Reviews* 20(S2): 116–128 https://doi.org/10.1111/obr.12840; L. McDermott et al. 2006 'International food advertising, pester power and its effects' *International Journal of Advertising* 25(4): 513–39 https://doi.org/10.1080/026 50487.2006.11072986; R. Smith et al. 2019 'Food marketing influences children's attitudes, preferences and consumption: a systematic critical review' *Nutrients* 11(4): 875 https://doi.org/10.3390/nu11040875; M. Tatlow-Golden et al. 2014 'Young children's food brand knowledge: early development and associations with television viewing and parent's diet' *Appetite* 80: 197–203 https://doi.org/10.1016/j.appet.2014.05.015
- 3. G. Cairns 2019 'A critical review of evidence on the sociocultural impacts of food marketing and policy implications' *Appetite* 136: 193–207 https://doi.org/10.1016/j.appet.2019.02.002
- 4. M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' *Global Food Security* 27: 100423 https://doi.org/10.1016/j.gfs.2020.100423
- 5. WHO 2016 Report on the Commission on Ending Childhood Obesity https://apps.who.int/iris/bitstream/handle/10665/204176/9789241510066_ eng.pdf?sequence=1; M. Tatlow-Golden et al. for WHO Europe 2016 Tackling Food Marketing to Children in a Digital world: Transdisciplinary Perspectives Children's Rights, Evidence of Impact, Methodological Challenges, Regulatory Options and Policy Implications for the WHO European Region https://www.euro.who.int/_data/assets/pdf_file/0017/322226/Tackling-food-marketing-childrendigital-world-trans-disciplinary-perspectives-en.pdf; UNICEF 2018 A Child Rights-based Approach to Food Marketing: A Guide for Policymakers https://sites.unicef.org/csr/files/A_Child_Rights-Based_Approach_to_Food_Marketing_Report.pdf; UNICEF 2018 Children and Digital Marketing: Rights, Risks and Responsibilities https://sites.unicef.org/csr/css/Children_and_Digital_Marketing_-_Rights_Risks_and_Responsibilities.pdf; M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' Global Food Security 27: 100423 https://doi.org/10.1016/j.gfs.2020.100423; M. Tatlow-Golden et al. 2014 'Young children's food brand knowledge: early development and associations with television viewing and parent's diet' Appetite 80: 197–203 https://doi.org/10.1016/j.appet.2014.05.015
- 6. R. Smith et al. 2019 'Food marketing influences children's attitudes, preferences and consumption: a systematic critical review' *Nutrients* 11(4): 875 https://doi.org/10.3390/nu11040875
- 7. A. Bruce et al. 2013 'Brain responses to food logos in obese and healthy weight children' *The Journal of Pediatrics* 162(4): 759–64 https://doi. org/10.1016/j.jpeds.2012.10.003; F. Folkvard et al. 2016 'Food advertising and eating behaviour in children' *Current Opinion in Behavioural Sciences* 9: 26–31 https://doi.org/10.1016/j.cobeha.2015.11.016; E. Rozendaal et al. 2011 'Reconsidering advertising literacy as a defense against advertising effects' *Media Psychology* 14(4): 333–54 https://doi.org/10.1080/15213269.2011.620540
- 8. M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' *Global Food Security* 27: 100423 https://doi.org/10.1016/j.gfs.2020.100423 and E. Boyland and M. Tatlow-Golden 2017 'Exposure, power and impact of food marketing on children: evidence supports strong restrictions' *European Journal of Risk Regulation* 8(2): 224–36 https://doi.org/10.1017/err.2017.21
- 9. A. Coates et al. 2019 'The effect of influencer marketing of food and a "protective" advertising disclosure on children's food intake' *Pediatric Obesity* 14: e12540. https://doi.org/10.1111/ijpo.12540
- 10. E. Boyland and M. Tatlow-Golden 2017 'Exposure, power and impact of food marketing on children: evidence supports strong restrictions' European Journal of Risk Regulation 8(2): 224–36 https://doi.org/10.1017/err.2017.21 and J.L. Harris et al 2009 'The food marketing defense model: integrating psychological research to protect youth and inform public policy' Social Issues and Policy Review 3(1): 211–71 https://doi.org/10.1111/j.1751-2409.2009.01015.x
- 11. L.J. Patterson et al. 2011 'Children's understanding of the selling versus persuasive intent of junk food advertising: Implications for regulation' Social Science & Medicine 72(6): 962–8 https://doi.org/10.1016/j.socscimed.2011.01.018
- 12. E. Boyland 2019 'Unhealthy food marketing: the impact on adults' (Obesity Health Alliance) http://obesityhealthalliance.org.uk/wp-content/uploads/2019/05/JFM-Impact-on-Adults-Boyland-May-2019-final-002.pdf
- 13. M. Tatlow-Golden et al. 2021 'Rising to the challenge: introducing protocols to monitor food marketing to children from the World Health Organization Regional Office for Europe' Obesity Reviews (early online version): e13212 https://doi.org/10.1111/obr.13212; M. Tatlow-Golden et al. for WHO Europe 2016 Tackling Food Marketing to Children in a Digital World: Transdisciplinary Perspectives Children's Rights, Evidence of Impact, Methodological Challenges, Regulatory Options and Policy Implications for the WHO European Region https://www.euro.who.int/_data/assets/pdf_file/0017/322226/Tackling-food-marketing-childrendigital-world-trans-disciplinary-perspectives-en.pdf
- 14. M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' *Global Food Security* 27: 100423 https://doi.org/10.1016/j.qfs.2020.100423
- 15. L. Buchanan et al. 2018 'The effects of digital marketing of unhealthy commodities on young people: a systematic review' *Nutrients* 10(2): 148 https://doi.org/10.3390/nu10020148; H. Forde et al. 2019 'The relationship between self-reported exposure to sugar-sweetened beverage promotions and intake: cross-sectional analysis of the 2017 International Food Policy Study' *Nutrients* 11(12): 3047 https://doi.org/10.3390/pui11123007
- A. Coates et al. 2020 "It's just addictive people that make addictive videos": children's understanding of and attitudes towards influencer
 marketing of food and beverages by YouTube video bloggers' *Journal of Environmental Research and Public Health* 17(2): 449 https://dx.doi.
 org/10.3390%2Fijerph17020449
- 17. M. Tatlow-Golden and A. Garde 2020 'Digital food marketing to children: exploitation, surveillance and rights violations' *Global Food Security* 27: 100423 https://doi.org/10.1016/j.gfs.2020.100423

- 18. The Food Foundation 2021 *The Broken Plate 2021: The State of the Nation's Food System* https://foodfoundation.org.uk/wp-content/uploads/2021/07/FF-Broken-Plate-2021.pdf
- 19. Marketing Week 2019 'Almost two-thirds of UK ad spend to be online by 2020' (5 June) https://www.marketingweek.com/online-ad-market-spend-uk-2020/
- 20. Advertising Agency / WARC Expenditure Reports 2017 and 2019, cited in DCMS/DHSC 2019 'Evidence note' to the consultation on a total restriction of online advertising for products high in fat, sugar and salt https://www.gov.uk/government/consultations/total-restriction-of-online-advertising-for-products-high-in-fat-sugar-and-salt-hfss/evidence-note#fn:5
- 21. DCMS/DHSC 2020 'Closed consultation: Introducing a total online advertising restriction for products high in fat, sugar and salt (HFSS)' https://www.gov.uk/government/consultations/total-restriction-of-online-advertising-for-products-high-in-fat-sugar-and-salt-hfss/introducing-a-total-online-advertising-restriction-for-products-high-in-fat-sugar-and-salt-hfss#children39s-media-habits-and-hfss-advertising-online
- 22. United Nations 1990 Convention on the Rights of the Child https://downloads.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf
- 23. UNICEF 2018a A Child Rights-based Approach to Food Marketing: A Guide for Policymakers https://sites.unicef.org/csr/files/A_Child_Rights-Based_Approach_to_Food_Marketing_Report.pdf and A. Garde et al. 2020 'Combatting obesogenic commercial practices through the implementation of the best interests of the child principle' in A. Garde and O. De Schutter (eds), Ending Childhood Obesity A Challenge at the Crossroads of International Economic and Human Rights Law (Edward Elgar Publishing) pp. 251–81
- 24. Bite Back 2030 (undated) A Bite Back 2030 Exposé: Lifting the Lid on the Secretive Online Strategies Global Food Giants are Using to Manipulate British Children https://biteback2030.com/sites/default/files/2021-02/Bite%20Back%20-%20Junk%20Food%20Marketing%20Expose%20 %281%29.pdf and A. Yau et al. 2021 'Sociodemographic differences in self-reported exposure to high fat, salt and sugar food and drink advertising: a cross-sectional analysis of 2019 UK panel data' BMJ Open 11: e048139 http://dx.doi.org/10.1136/bmjopen-2020-048139
- 25. R. Ireland et al. 2019 'Exploring the relationship between Big Food corporations and professional sports clubs: a scoping review' *Public Health Nutrition* 22(10): 1888–97 https://doi.org/10.1017/S1368980019000545
- 26. B. Kelly et al. 2011 "Food company sponsors are kind, generous and cool": (mis)conceptions of junior sports players' *Int J Behav Nutr Phys Act* 8: 95 https://doi.org/10.1186/1479-5868-8-95
- 27. R. Ireland et al. 2019 'Exploring the relationship between Big Food corporations and professional sports clubs: a scoping review' *Public Health Nutrition* 22(10): 1888–97 https://doi.org/10.1017/S1368980019000545
- 28. See, for example, experience in Chile: F.R Dillman Carpentier et al. 2020 'Evaluating the impact of Chile's marketing regulation of unhealthy foods and beverages: preschool and adolescent children's changes in exposure to food advertising on television' *Public Health Nutr* 23(4): 747–55 https://doi.org/10.1017/S1368980019003355
- 29. These new spaces could be different programmes, forms of media, settings or advertising techniques.
- 30. M. Tatlow-Golden et al. for WHO Europe 2016 Tackling Food Marketing to Children in a Digital World: Transdisciplinary Perspectives Children's Rights, Evidence of Impact, Methodological Challenges, Regulatory Options and Policy Implications for the WHO European Region' https://www.euro. who.int/ data/assets/pdf file/0017/322226/Tackling-food-marketing-children-digital-world-trans-disciplinary-perspectives-en.pdf
- 31. See e.g. J.L. Harris et al. 2009 'The food marketing defense model: integrating psychological research to protect youth and inform public policy' Social Issues Policy Rev 3: 211–71 https://doi.org/10.1111/j.1751-2409.2009.01015.x
- 32. M. Tatlow-Golden et al. for WHO Europe 2016. *Tackling Food Marketing to Children in a Digital World: Trans-disciplinary Perspectives Children's Rights, Evidence of Impact, Methodological Challenges, Regulatory Options and Policy Implications for the WHO European Region*' https://www.euro. who.int/_data/assets/pdf_file/0017/322226/Tackling-food-marketing-children-digital-world-trans-disciplinary-perspectives-en.pdf
- 33. M. Tatlow-Golden et al. 2014. 'Young children's food brand knowledge. Early development and associations with television viewing and parent's diet' *Appetite* 80: 197-203 https://doi.org/10.1016/j.appet.2014.05.015
- L. Conway 2020 Regulation of Advertising by the ASA House of Commons Library Briefing Paper CPB 06130, 20 August 2020) https://researchbriefings.files.parliament.uk/documents/SN06130/SN06130.pdf
- 35. B. Kelly et al. 2019 'Global benchmarking of children's exposure to television advertising of unhealthy foods and beverages across 22 countries' Obesity Reviews (Supplement: Future Directions in Obesity Prevention) 20(S2): 116–28 https://doi.org/10.1111/obr.12840 and S.A. Chambers et al. 2015 'Reducing the volume, exposure and negative impacts of advertising for foods high in fat, sugar and salt to children: A systematic review of the evidence from statutory and self-regulatory actions and educational measures' Prev Med 75: 32–43 https://doi.org/10.1016/j. ypmed.2015.02.011; WHO 2018 Implementing the WHO Recommendations on the Marketing of Food and Non-alcoholic Beverages to Children in the Eastern Mediterranean Region https://apps.who.int/iris/bitstream/handle/10665/328213/EMROPUB_2018_2248_en.pdf
- 36. Food Foundation 2017 'UK's restrictions on junk food advertising to children' *International Learning Series 3* https://foodfoundation.org.uk/wp-content/uploads/2017/07/3-Briefing-UK-Junk-Food_vF.pdf
- 37. See, for example, J. Lacy-Nichols et al. 2020 'The politics of voluntary self-regulation: insights from the development and promotion of the Australian Beverages Council's Commitment' *Public Health Nutr* 23(3): 564–75 https://doi.org/10.1017/S1368980019002003, C. Hawkes 2005 'Self-regulation of food advertising: what it can, could and cannot do to discourage unhealthy eating habits among children' *Nutrition Bulletin* 30(4): 374–82 https://doi.org/10.1111/j.1467-3010.2005.00526.x; S.A. Chambers 2015 'Reducing the volume, exposure and negative impacts of advertising for foods high in fat, sugar and salt to children: a systematic review of the evidence from statutory and self-regulatory actions and educational measures' *Prev Med* 75: 32–43 https://doi.org/10.1016/j.ypmed.2015.02.011 and A. Razavi et al. 2019 'What arguments and from whom are most influential in shaping public health policy: thematic content analysis of responses to a public consultation on the regulation of television food advertising to children in the UK' *BMJ Open* 9(8): e028221 https://doi.org/10.1136/bmjopen-2018-028221
- 38. A. Razavi et al. 2019 'What arguments and from whom are most influential in shaping public health policy: thematic content analysis of responses to a public consultation on the regulation of television food advertising to children in the UK' *BMJ Open* 9(8): e028221 https://doi.org/10.1136/bmjopen-2018-028221

- 39. L. Carters-White et al. 2021 'Whose rights deserve protection? Framing analysis of responses to the 2016 Committee of Advertising Practice consultation on the non-broadcast advertising of foods and soft drinks to children' *Food Policy* 104 https://doi.org/10.1016/j. foodpol.2021.102139
- 40. WHO 2018 Implementing the WHO Recommendations on the Marketing of Food and Non-alcoholic Beverages to Children in the Eastern Mediterranean Region https://apps.who.int/iris/bitstream/handle/10665/328213/EMROPUB 2018 2248 en.pdf
- 41. WHO 2018 Implementing the WHO Recommendations on the Marketing of Food and Non-alcoholic Beverages to Children in the Eastern Mediterranean Region https://apps.who.int/iris/bitstream/handle/10665/328213/EMROPUB_2018_2248_en.pdf and UNICEF 2018 A Child Rights-based Approach to Food Marketing: A Guide for Policymakers https://sites.unicef.org/csr/files/A_Child_Rights-Based_Approach_to_Food_Marketing_Report.pdf
- 42. A. Garde et al. 2020 'Combatting obesogenic commercial practices through the implementation of the best interests of the child principle' in A. Garde and O. De Schutter (eds), Ending Childhood Obesity A Challenge at the Crossroads of International Economic and Human Rights Law (Edward Elgar Publishing), pp. 251–81
- 43. D. Cohen and L. Lesser 2016 'Obesity prevention at the point of purchase' Obesity Reviews 17: 389-96 https://doi.org/10.1111/obr.12387
- 44. L. Martin et al. 2017 'Rapid evidence review: the impact of promotions on high fat, sugar and salt food and drink on consumer purchasing and consumption behaviour and the effectiveness of retail environment interactions' (for NHS Health Scotland) http://www.healthscotland.scot/media/1611/rapid-evidence-review-restriction-of-price-promotions.pdf
- 45. C. Hawkes 2009 'Sales promotions and food consumption' Nutrition Reviews 67(6): 333-42 https://doi.org/10.1111/j.1753-4887.2009.00206.x
- 46. Public Health England 2019 Sugar Reduction: Progress between 2015 and 2018 https://www.gov.uk/government/publications/sugar-reduction-progress-between-2015-and-2018
- 47. UK Health Forum & Health Equalities Group 2019 Availability, Placement, Marketing & Promotions of HFSS Content Foods in Traditional Non-food Retail Environments https://foodactive.org.uk/wp-content/uploads/2020/08/Fieldwork-High-Street-Food-Placement-Project-Strand-One-Final-Report-March-20191.pdf
- 48. Public Health England 2015 Sugar Reduction: The Evidence for Action, Annexe 4: An analysis of the role of price promotions on the household purchases of food and drinks high in sugar' https://www.gov.uk/government/publications/sugar-reduction-from-evidence-into-action
- 49. L. Martin et al. 2017 Rapid Evidence Review: The Impact of Promotions on High Fat, Sugar and Salt (HFSS) Food and Drink on Consumer Purchasing and Consumption Behaviour and the Effectiveness of Retail Environment Interventions (Edinburgh: NHS Health Scotland) http://www.healthscotland.scot/media/1611/rapid-evidence-review-restriction-of-price-promotions.pdf
- 50. A. Wilson et al. 2016 'Nudging healthier food and beverage choices through salience and priming: evidence from a systematic review' *Food Quality and Preference* 51: 47–64 https://doi.org/10.1016/j.foodqual.2016.02.009
- 51. C. Hawkes 2009 'Sales promotions and food consumption' *Nutrition Reviews* 67(6): 333–42 https://doi.org/10.1111/j.1753-4887.2009.00206.x, D. Cohen and L. Lesser 2016 'Obesity prevention at the point of purchase' *Obesity Reviews* 17: 389–96 https://doi.org/10.1111/obr.12387 and L. Thornton et al. 2012 'The availability of snack food displays that may trigger impulse purchases in Melbourne supermarkets' *BMC Public Health* 12: 194 https://doi.org/10.1186/1471-2458-12-194
- 52. OHA 2018 Out of Place: The Extent of Unhealthy Foods in Prime Locations in Supermarkets http://obesityhealthalliance.org.uk/wp-content/uploads/2018/11/Out-of-Place-Obesity-Health-Alliance-2.pdf
- 53. L. Setterfield et al. 2018 Marketing Strategies used within Premises by Out of Home Businesses (Ipsos MORI Scotland for Food Standards Scotland) https://www.foodstandards.gov.scot/publications-and-research/publications/marketing-strategies-used-within-premises-by-out-of-home-businesses
- 54. DCMS and DHSC 2020 'Open consultation: Introducing a total online advertising restriction for products high in fat, sugar and salt (HFSS)' (November) https://www.gov.uk/government/consultations/total-restriction-of-online-advertising-for-products-high-in-fat-sugar-and-salt-hfss/introducing-a-total-online-advertising-restriction-for-products-high-in-fat-sugar-and-salt-hfss
- 55. DHSC 2020 'Consultation outcome: Restricting promotions of products high in fat, sugar and salt by location and by price: government response to public consultation' (28 December) https://www.gov.uk/government/consultations/restricting-promotions-of-food-and-drink-that-is-high-in-fat-sugar-and-salt/outcome/restricting-promotions-of-products-high-in-fat-sugar-and-salt-by-location-and-by-price-government-response-to-public-consultation
- 56. Access to Nutrition Initiative 2021 UK Product Profile 2021 https://accesstonutrition.org/project/atni-shareaction/
- 57. VicHealth 2020 *Under the Radar: Harmful Industries' Digital Marketing to Australian Children* https://www.vichealth.vic.gov.au/media-and-resources/publications/harmful-industries-digital-marketing-to-australian-children



8. Early years of life

Our vision

All children have the healthiest possible start in life, setting them up for a healthy growth trajectory.

This means ensuring that parents and caregivers receive appropriate tailored support to help ensure healthy growth of their children, within a broader framework of a society and culture that facilitates good health at all ages.

Definitions

In this strategy, 'early years' are defined as the period in a child's life from pre-conception to the age of four. The pre-conception period is included because the health of future parents in this time can affect infant health: the environment in which the egg and sperm are produced has epigenetic effects that can adversely impact on the metabolic health of the next generation.

'Introduction of solids' (sometimes known as 'complementary feeding') is the transition to foods in addition to breastmilk and/or infant formula, which is recommended to start at around six months in the UK.¹

Rationale for action

Why addressing the early years matters

The early years of life set the trajectory for future health: excess weight gain in infancy affects later child weight and once established, obesity is harder to reverse. This period represents a unique opportunity to influence the future health of children and bring wider benefits to the whole family, which is why this life stage has been singled out for a dedicated chapter in this strategy.

While genetic factors (which cannot be modified) can explain some differences in weight, these interact with an increasingly obesogenic environment, including inappropriate marketing and easy accessibility of unhealthy products (which influence parental choice and 'pester power' from a young age). On top of this, historic funding cuts to local authorities, which have had an impact on services to support parents of young children

– such as advice on healthy weight and healthy eating in the early years, and breastfeeding support.³ These system-level changes, over which parents have limited control, are driving an increased risk of unhealthy growth in babies and young children. As a result, the number of children starting school with overweight or obesity has risen. Moreover, there are significant disparities: in England 13.3% of Reception-age children living in the most deprived areas have a weight classed as obese compared to 6.0% of those living in the least deprived areas.⁴

'Put children into healthy habits from the offset then they're more likely to continue as healthy habits growing up....'

– participant in the insight panel

Pre-conception, pregnancy and the early years are ideal times to support early intervention: parents and caregivers want the best for their babies and there are many touch-points at which support can be offered, such as at family planning clinics, health-visitor mandated contacts and the six-week postnatal check. However, conflicting information from multiple sources can cause confusion among parents, and delivery and uptake of support is low, compounded by a lack of children's centres or family hubs at which further information can be gathered.

The evidence for action

Before and during pregnancy

Good maternal health is vital to children's health. There is clear evidence that living with overweight or obesity before or during pregnancy can influence the metabolic environment experienced by the growing foetus, which impacts on birth size and growth patterns in infancy.⁵ Poor nutritional intake (such as low iron intake) can also influence cognitive development of the baby.⁶ Studies have shown that higher pre-pregnancy weight and excessive weight gain during pregnancy are both associated with a higher risk of overweight or obesity for the child in early, mid and late childhood.⁷ In addition, men living with overweight and obesity may find it harder to conceive, as excess weight may affect the quality and quantity of sperm.⁸

In infancy (0-6 months)

There is growing evidence that breastfeeding gives a consistent protective effect against overweight and obesity in infancy⁹ (estimated as around a 20% reduction in prevalence), which lasts into childhood and adulthood.¹⁰ This protection increases with the dose of breastfeeding.¹¹

The UK has one of the lowest levels of breastfeeding in

Europe. Although public health advice is to exclusively breastfeed babies for around six months, the most recent national Infant Feeding Survey (2010) found that, at one week, fewer than half of all mothers (46 per cent) were exclusively breastfeeding, falling to around a quarter (23 per cent) by six weeks – and by six months levels of exclusive breastfeeding decrease to only 1 per cent. There are many social, cultural and economic barriers to breastfeeding that means that some women find themselves unable to breastfeed, despite their genuine efforts.

There are also significant inequalities in breastfeeding, with the lowest prevalence among very young mothers and disadvantaged socioeconomic groups. ¹⁴ Women with overweight and obesity tend to have significantly lower breastfeeding rates and continue to breastfeed for a shorter period of time than women with lower pre-pregnancy weight, for both physiological and psychosocial reasons. ¹⁵

Improving support to women would increase breastfeeding rates, including breastfeeding continuation, thereby delivering significant cost savings to the NHS and to local authorities. Reducing the incidence of just five illnesses, against which breastfeeding is protective, would translate into cost savings for the NHS of at least £48 million a year, with tens of thousands fewer hospital admissions and GP consultations. ¹⁶

While breastfeeding protects against excess weight gain in infancy, formula feeding has been shown to be associated with excess intake and correspondingly excess weight gain.¹⁷ One explanatory pathway is that bottle-fed infants cannot regulate their intake in the same way as breastfed infants,¹⁸ and parents may not have the information and support they need to bottle-feed responsively.¹⁹

'Demystifying and normalising breastfeeding could go a long way towards creating a more positive culture of breastfeeding in this country. Young people's first encounter with breastfeeding should not be at the time at which they become parents themselves'

- Professor Mary Fewtrell

The introduction of solids and beyond (around six months and up)

The period when foods are introduced alongside milk provides a key opportunity for introducing healthy dietary habits that influence preferences later in childhood, including the acceptance of a variety of tastes and flavours. A responsive approach to feeding (where parents or caregivers respond appropriately to infant cues of hunger or fullness) is protective against obesity.²⁰

Infants have an innate preference for sweet flavours, which some evidence suggests is reinforced by eating these foods when solids are introduced, so it is recommended that sugar is not added to food for infants.²¹ It is also recommended that no salt is added to complementary foods.

Data show that in infants aged 1½–3 years (which is the youngest age for which group data is collected) consumption of free sugars²² and salt exceeds available recommendations.²³ In addition, data on overall energy consumption show that 75% of children aged 4–18

months had intakes exceeding their daily average calorie requirement, with the intakes rising with age as solids are first introduced.²⁴

Recent research by PHE highlighted that many commercial baby foods have added sugar or salt, or contain ingredients that are high in free sugars or salt.²⁵ These foods and snacks are commonly consumed by children from as young as four months, right through infancy into the second year of life.²⁶ Research in 2019 suggested that 71% of children aged 0–4 have consumed a manufactured baby/toddler finger food or snack (of whom 28% have this at least once a day) and 59% have eaten a baby/toddler food product such as a pouch or jar (of which 22% have this at least once a day).²⁷

Further research has shown that parents have a misplaced trust in food manufacturers to know what is best for their babies and to sell products appropriate for their growing babies' needs, including not containing too much sugar or salt.²⁸

Marketing and labelling

There are ongoing concerns about inappropriate or misleading marketing and labelling of formula milks and commercially produced baby foods and snacks. The WHO International Code of Marketing of Breast-milk Substitutes²⁹ and subsequent World Health Assembly resolutions represent a global policy framework designed to protect all babies from unscrupulous marketing and claims about alternatives to breastmilk. Some, but not all, of the Code and resolutions are written into regulation in the UK, which means, for example, that advertising of 'follow-on' formula for babies aged six months plus is permitted, which is against international recommendations. As these products usually share the same name and branding as infant formula, they have a powerful crossmarketing effect. Another example is that some companies use unsubstantiated claims such as marketing formula as suitable 'for hungry babies', despite clear guidance from the NHS that there is no evidence that babies settle better or sleep longer when fed this type of formula.³⁰

Current issues with the way foods are labelled and marketed for infants and young children include: lack of coherence with public health advice to introduce solids at around six months (many products are marketed as being for four months on); the use of nutrition and implied health claims and 'health halo' statements (such as 'one of your five-a-day', 'no added sugar' and 'added vitamins'), which suggest to parents that products are healthier than their nutrient composition indicates, particularly with respect to their sugar content; and, lastly, product names that do not always reflect the range and balance of constituent ingredients.³¹

Providing support

There is strong evidence that breastfeeding support can effectively increase breastfeeding rates. This support is more helpful if it is predictable, scheduled, and includes ongoing visits with trained health professionals and with trained volunteers.³² Community-based early years services can also support healthy eating and physical activity in numerous direct and indirect ways.³³

Health visitors are uniquely placed to build relationships with families, offering holistic support and identifying infants at risk of poorer health outcomes. Existing cuts to public-health budgets since 2015 (see chapter 5) have led to a reduction in health visitor numbers and the scope of the service they have been able to deliver. This was exacerbated during the Covid-19 pandemic due to redeployment of staff, leaving a backlog of unmet need and increased service demand. Health visitors manage several

competing priorities of health promotion and health prevention topics at each mandated contact, so investment is needed to increase the number of health visitors to ensure that all have the capacity and skills to discuss healthy weight, share information and support families.

In England, budget cuts to local authorities have led to cuts in the number of SureStart Children's Centres (the main community-based service), and also the range of services offered by those remaining.³⁴ A recent study linked cuts to children's centres with increasing prevalence of obesity in 4–5-year-olds, estimating an 0.34% increase for every 10% expenditure cut per year with a disproportionate impact in the most deprived areas due to greater cuts in spending.³⁵

Action needed to reach the vision

Setting the foundations for health in the early years is crucial to ensure every child has the opportunity for the best possible start in life. Further government action is required to provide consistent and accessible advice and programmes, along with policies that help to address health inequalities and create an environment in which families and their babies can thrive. These broad efforts are required to support an overall shift to a less obesogenic environment – this can then be coupled with consistent support for families. Much of the support needed for families is provided by local authorities and will depend on long-term funding (see chapter 5).

Urgent action is needed across all the areas dealt with in this chapter:

There are many ways in which the wider environment can better support families in ensuring that babies have the best chance to thrive.

- The UK's last national Infant Feeding Survey
 was undertaken in 2010, having previously been
 conducted every five years,³⁶ and the UK Government's
 commitment to reinstate this is strongly welcomed
 and should be progressed as soon as possible.
- The UK Government is currently consulting³⁷ on proposals for reformulation of commercial baby foods to limit sugar and salt content and, while this is to be welcomed as a first step, it remains problematic.
 The proposed limit for sugar is higher than that recently proposed by WHO Europe³⁸ and, in addition,

the proposal under consideration would be voluntary. Companies that continue to produce commercial baby foods with unhealthy levels of salt and sugar should be subject to fines or other sanctions, which is only possible under a mandatory system.

- Further regulatory action is needed to address inappropriate or misleading marketing and labelling of formula milks and commercially produced baby foods and snacks. This should include an extension of the existing ban on advertising infant formula to include follow-on formula and address the use of non-evidence-informed marketing messages such as 'for hungrier babies'. Messaging and marketing should not conflict with national recommendations on infant and young child feeding.
- Among pre-school-age children, height and weight measurements are routinely taken at the 2–2½-year health visitor review, but this data is currently not centrally collected or linked to other growth surveillance data. Collecting and centrally recording this data (as with the National Child Measurement programme) could form an important strand of a robust and joined-up surveillance system, which would ensure that programme development and delivery is both evidence-informed and adaptive. The proposed digital child health record will help make this data readily available to parents and to all relevant health, education and social care professionals interacting with the family, to better enable the management of a child's growth trajectory where necessary.

- There needs to be greater recognition of the importance of a healthy growth trajectory for every infant, with a model pathway established, consisting of key principles for identifying infants at risk of obesity and guidance to equip staff to engage the family. Support and guidance to families should be delivered in an understanding way, and cover multiple components and advice for parents should include the promotion of physical activity in line with CMO quidelines.³⁹ Targeted pathways should be developed for those at highest risk, such as looked-after children and those with special educational needs. Individual and family-level support is also essential for all caregivers so that they receive appropriate advice and guidance on nutrition and healthy eating, physical activity and consistent messages on healthy weight. This support requires adequate and long-term funding for local authorities (see chapter 5).
- programmes need to have at least 6–10 visits and last for at least a year. 40 An increase in health visitor 'contacts' (home visits or clinic appointments) to a minimum of eight (as recommended by the Institute of Health Visiting) would make available greater opportunities for the provision of advice and support on infant feeding and the promotion of healthy eating, physical activity and healthy weight. It would enable the early identification of children at risk of unhealthy growth with enhanced, tailored follow-up where needed to improve outcomes.
- Practical breastfeeding support delivered face-to-face should be available to all women, delivered by appropriately qualified midwives, midwife support workers, health visitors or breastfeeding specialists, and assisted by trained peer supporters. Staffing is often inadequate to provide women with the help that they need and this is reflected in the low rate of sustained breastfeeding. Adequate funding is required for locally targeted support, particularly for women with low socioeconomic status and with appropriate tailoring for women with obesity. Advice and support on responsive formula feeding must also be available for families using formula.
- There is currently a gap in provision of children's centres or family hubs, particularly in areas of high deprivation. This needs to be addressed urgently if families are to access the reliable and evidenceinformed information that they need.

Comprehensive training should enable and equip professionals working with expectant parents and families to discuss healthy weight and healthy eating in an empathetic manner, ensuring that the advice they receive is based on the best current independent evidence. Raising the subject of excessive weight gain in infants and young children can be challenging, so professionals need to be trained and supported to have sensitive and compassionate conversations with families - and, as noted in chapter 2, all health professionals should receive training on the importance of addressing weight bias. There is a specific need for education and training for early years practitioners to give them the confidence and competence to incorporate physically active play in their settings and to know how they can reach out and support play between parents and children in and around the home.

Recommendations

Responsibility

Follow up on the commitment made in the 2019 Prevention Green Paper to reinstate the National Infant Feeding Survey.

DHSC



Improve the nutritional content of infant food by strengthening the existing commercial infant and baby food and drink reformulation programme to fully align with WHO Europe recommendations for sugar and salt. Commit to the introduction of a regulatory lever (such as fines or sanctions) for manufacturers that do not reformulate their products by 2024.

DHSC



Increase the provision of support to families with the following:

- Increase the mandated universal face-to-face contacts with a health visitor to eight, with enhanced tailored follow-up where needed to improve outcomes.
- Ensure universal breastfeeding support programmes are accessible to all families.
- Provide children's centres or family hubs in areas of high deprivation.

Local authorities

Requires public health funding



Ensure training for professionals working with expectant parents and families includes the skills needed to discuss infant and child healthy growth and healthy eating with compassion and sensitivity.

Ensure training for early years practitioners includes skills to enable them to incorporate physically active play in their settings and confidently reach out and support play between parents and children in and around the home.

DHSC



Ensure that all infants and young children at risk of, or with overweight and obesity are identified and supported.

This requires the following:

- Height and weight measurements taken at 2-2.5 year check with data nationally collated
- Development of a model pathway with guidance to identify infants at risk of, or
 with overweight and obesity and key principles for future management plus the
 development of targeted pathways for highest risk communities such as looked
 after children and those with special education needs.

DHSC



Prevent the misleading marketing of food and drinks aimed at infants and young children with new regulations to ensure honest labelling that aligns with public health advice. Introduction of further regulation – including extending the ban on advertising infant formula milk to follow-on formula – so marketing cannot be used to undermine breastfeeding or mislead parents.

DHSC



References

- 1. Scientific Advisory Committee on Nutrition 2018 Feeding in the First Year of Life: SACN Report https://www.gov.uk/government/publications/feeding-in-the-first-year-of-life-sacn-report
- 2. Sustain 2020 Pester Power or Parent Power? Parents' Views of Child-friendly Characters on Food and Drink Packaging https://www.sustainweb.org/publications/pester_power_or_parent_power/#
- 3. For example, Better Breastfeeding, 'Cuts to breastfeeding support in England' https://betterbreastfeeding.uk/englandcuts/
- 4. NHS Digital 2020 National Child Measurement Programme, England 2019/20 School Year https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2019-20-school-year#key-facts
- 5. Z. Yu et al. 2013 'Pre-pregnancy body mass index in relation to infant birth weight and offspring overweight/obesity: a systematic review and meta-analysis' *PLoS One* https://doi.org/10.1371/journal.pone.0061627
- 6. R. Pérez-Escamilla et al. 2017 'The role of nutrition in integrated early child development in the 21st century: contribution from the *Maternal and Child Nutrition* journal' *Matern Child Nutr* 13: e12387 https://doi.org/10.1111/mcn.12387
- 7. E. Voerman et al. 2019 'Maternal body mass index, gestational weight gain, and the risk of overweight and obesity across childhood: An individual participant data meta-analysis' *PLoS Med* 16(2): e1002744 https://doi.org/10.1371/journal.pmed.1002744
- 8. A. Salas-Huetos et al. 2021 'Male adiposity, sperm parameters and reproductive hormones: an updated systematic review and collaborative meta-analysis' Obes Rev 22: e13082 https://doi.org/10.1111/obr.13082
- 9. C.G. Victoria et al. 2016 'Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect' *The Lancet* 387(10017): 475–90 https://doi.org/10.1016/S0140-6736(15)01024-7
- 10. B.L. Horta 2015 'Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: a systematic review and meta-analysis' *Acta Paediatr* 104: 30–7 https://doi.org/10.1111/apa.13133
- 11. C.G. Victoria et al. 2016 'Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect' *The Lancet* 387(10017): 475–90 https://doi.org/10.1016/S0140-6736(15)01024-7
- 12. NHS 2012 Infant Feeding Survey UK, 2010 https://digital.nhs.uk/data-and-information/publications/statistical/infant-feeding-survey/infant-feeding-survey-uk-2010
- 13. PHE 2016 Commissioning Infant Feeding Services: A Toolkit for Local Authorities (Part 2): Evidence-based Good Practice Prompts for Planning Comprehensive Breastfeeding Support Interventions https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/538344/Commissioning_infant_feeding_services_a_toolkit_for_local_authorities_Part_2_pdf
- 14. K.E.C. Grimshaw et al. 2013 'Prospective food diaries demonstrate breastfeeding characteristics in a UK birth cohort' *Matern Child Nutr* 11(4): 703–11 https://doi.org/10.1111/mcn.12052
- 15. N.E. Marshall et al. 2019 'Impact of maternal obesity and breastfeeding intention on lactation intensity and duration' *Matern Child Nutr* 15: e12732 https://doi.org/10.1111/mcn.12732 and I. Guielinckx 2012 'The effect of pre-pregnancy BMI on intention, initiation and duration of breast-feeding' *Public Health Nutr* 15: 840–8 https://doi.org/10.1017/S1368980011002667
- 16. MJ. Renfrew et al. 2012 Preventing Disease and Saving Resources: The Potential Contribution of Increasing Breastfeeding Rates in the UK (UNICEF UK and the Baby Friendly Initiative) https://www.unicef.org.uk/wp-content/uploads/sites/2/2012/11/Preventing_disease_saving_resources.pdf
- 17. J. Appleton et al. 2018 'Infant formula feeding practices associated with rapid weight gain: a systematic review' *Matern Child Nutr* 14(3): e12602 https://doi.org/10.1111/mcn.12602
- 18. R. Li et al. 2010 'Do infants fed from bottles lack self-regulation of milk intake compared with directly breastfed infants?' *Pediatrics* 125(6): e1386–93 https://doi.org/10.1542/peds.2009-2549
- 19. C. Guell et al. 2018 'Toward understanding how social factors shaped a behavioral intervention on healthier infant formula-feeding' *Qualitative Health Research* 28(8): 1320–9 https://doi.org/10.1177/1049732318764386
- 20. S.A. Redsell et al. 2016 'Systematic review of randomised controlled trials of interventions that aim to reduce the risk, either directly or indirectly, of overweight and obesity in infancy and early childhood' *Matern Child Nutr* 12: 24–38 https://doi.org/10.1111/mcn.12184 and I.M. Paul et al. 2018 'Effect of a responsive parenting educational intervention on childhood weight outcomes at 3 years of age: the INSIGHT randomized clinical trial' *JAMA* 320: 461–8 https://doi.org/10.1001/jama.2018.9432
- 21. M. Fewtrell et al. 2019 'Complementary feeding: a position paper by the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN) Committee on Nutrition' *IPGN* 64(1): 119–32 https://doi.org/10.1097/MPG.000000000001548
- 22. The UK Government recommendation is that free sugars should provide no more than 5% of total energy intake, and this applies to those aged two years and over.
- 23. NDNS 2020 National Diet and Nutrition Survey: Results from Years 9 to 11 (2016 to 2017 and 2018 to 2019) https://www.gov.uk/government/statistics/ndns-results-from-years-9-to-11-2016-to-2017-and-2018-to-2019
- 24. PHE 2019 Foods and Drinks aimed at Infants and Young Children: Evidence and Opportunities for Action https://assets.publishing.service.gov.uk/ government/uploads/system/uploads/attachment data/file/812204/Foods and drinks aimed at infants and young children June 2019.pdf
- 25. PHE 2019 Commercial Infant and Baby Food and Drink: Evidence Review https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/139572/DNSIYC UK report ALL chapters DH V10.0.pdf
- 26. A. Lennox et al. 2013 Diet and Nutrition Survey of Infants and Young Children, 2011 https://www.gov.uk/government/publications/diet-and-nutrition-survey-of-infants-and-young-children-2011

- 27. Mintel 2019 Baby Food and Drink UK March 2019 https://store.mintel.com/report/baby-food-and-drink-uk-march-2019
- 28. PHE 2019 Commercial Infant and Baby Food and Drink: Evidence Review https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/139572/DNSIYC_UK_report_ALL_chapters_DH_V10.0.pdf
- 29. Unicef (undated) 'The International Code of Marketing of Breastmilk Substitutes' https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/international-code-marketing-breastmilk-substitutes-resources/the-code/
- 30. NHS 2019 'Types of formula' https://www.nhs.uk/conditions/baby/breastfeeding-and-bottle-feeding/bottle-feeding/types-of-formula/
- 31. PHE 2019 Commercial Infant and Baby Food and Drink: Evidence Review https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/139572/DNSIYC_UK_report_ALL_chapters_DH_V10.0.pdf
- 32. A. McFadden et al. 2017 'Support for healthy breastfeeding mothers with healthy term babies' *Cochrane Database of Systematic Reviews* https://doi.org/10.1002/14651858.CD001141.pub5
- 33. K. Mason et al. 2021 'Impact of cuts to local government spending on Sure Start children's centres on childhood obesity in England: a longitudinal ecological study' *J Epidemiol Community Health* 75: 860–6 https://doi.org/10.1136/jech-2020-216064
- 34. G Smith et al. 2018 Stop Start: Survival, Decline or Closure? Children's Centres in England (The Sutton Trust) https://www.suttontrust.com/our-research/sure-start-childrens-centres-england/
- 35. K. Mason et al. 2021 'Impact of cuts to local government spending on Sure Start children's centres on childhood obesity in England: a longitudinal ecological study' *J Epidemiol Community Health* 75: 860–6 https://doi.org/10.1136/jech-2020-216064
- 36. NHS 2012 Infant Feeding Survey UK, 2010 https://digital.nhs.uk/data-and-information/publications/statistical/infant-feeding-survey/infant-feeding-survey-uk-2010
- 37. PHE 2021 Sugar Reduction and Wider Reformulation Programme: Stakeholder Engagement June 2020 to February 2021 https://www.gov.uk/government/publications/sugar-reduction-and-wider-reformulation-stakeholder-engagement/sugar-reduction-and-wider-reformulation-programme-stakeholder-engagement-june-2020-to-february-2021
- 38. WHO Europe 2019 Improving Nutritional Quality of Commercial Foods for Infants and Young Children in the WHO European Region https://www.euro.who.int/data/assets/pdf file/0008/407564/Improving-Nutritional-Quality-LowRes.pdf
- 39. CMOs (of the four nations) 2019 UK Chief Medical Officers' Physical Activity Guidelines, pp. 21+ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf
- 40. J. Bull et al. 2004 'Ante- and post-natal home-visiting programmes: a review of reviews (Health Development Agency) https://www.researchgate.net/publication/242494602_Ante_and_post-natal_home-visiting_programmes_a_review_of_reviews and J. MacLeod and G. Nelson 2000 'Programs for the promotion of family wellness and the prevention of child maltreatment: a meta-analytic review' *Child Abuse and Neglect* 24: 1127–49 https://doi.org/10.1016/s0145-2134(00)00178-2



9. Management, treatment and support

Our vision

A fully resourced system that offers and delivers equitable access to appropriate, tailored and sustained weight-management and support services to people living with overweight and obesity.

This means guaranteeing a consistent, equitable and evidence-informed treatment pathway based on varying individual needs, providing appropriate person-centred support for all in a non-stigmatising way.

Rationale for action

'To receive treatment and support for obesity instead of weight stigma, bias, judgement and ridicule is simply the difference between living your best life and just existing. Receiving bariatric surgery saved my life and cognitive behavioural therapy changed it. I'm still riding the rollercoaster but now I'm holding on with one hand and waving the other'

- participant in the lived experience panel

This strategy sets out many of the actions needed to prevent people developing obesity in the future, but there is also a pressing need for action to support people already living with overweight and obesity.

Obesity is associated with an increased risk of several life-limiting health conditions that can impair the mental and physical health of the person, their quality of life, and ultimately lead to premature death. Effective treatment can improve or lead to remission of obesity-related complications, improve quality of life and extend life expectancy. As risk is linearly related to excess

weight, even a small amount of weight loss reduces many of the adverse health effects associated with obesity,³ including improvement in blood pressure and HDL and LDL cholesterol levels, help to prevent progression from impaired glucose tolerance to type 2 diabetes,⁴ reduced cardiovascular risk factors,⁵ reduced back and joint pain and sleep apnoea,⁶ and improved mental health.⁷ Generally, evidence shows that greater excess weight loss leads to better outcomes.⁸

The current landscape of weight-management services

Weight-management services in England are currently organised into a system composed of four 'tiers' (box 16), which are grouped by the nature of the weight-management intervention provided by the service. Together, these services offer a range of interventions to treat and manage overweight and obesity at all ages and right across the treatment pathway, stretching from brief advice from a healthcare professional to behavioural

and dietary interventions, pharmacological treatments and bariatric surgery.

Offering a broad scope of services is vital for successful delivery of needs-based, person-centred care. Not every treatment option is suitable for every individual, and people need to be fully informed about which potential treatments may be most effective and safe for them.

The tier system of weight-management services

Different tiers of weight-management services cover different activities. Definitions vary locally but usually **tier 1** covers universal services (such as health promotion or primary care); **tier 2** covers lifestyle interventions; **tier 3** covers specialist weight-management services; and **tier 4** covers bariatric surgery.¹¹

The evidence base for treatment options

Behavioural and lifestyle interventions

As recommended by NICE guidance,¹² weight-management interventions for adults normally begin with qualified professionals (GPs and others, such as dietitians and psychologists) **screening and offering brief advice to motivate behaviour change.** Evidence suggests that this is most effective (and cost-saving¹³) when patients are also referred to behavioural weight-management programmes.¹⁴ There is some evidence that self-help interventions (that are not reliant on professional input) lead to modest but significant weight loss at six months compared with minimal interventions.¹⁵ However, data are not always available from some of the commercial providers who provide some of these types of services.

More structured and extensive behavioural and lifestyle interventions are delivered in a range of formats, with varying evidence of effectiveness:

• Multi-component programmes deliver individual or group sessions that include several different interventions, including exercise classes, psychological support and motivational interviewing. There is evidence of effectiveness across age groups, including older adults, 16 younger children up to age six (a study found a reduction in BMI after 6–12 months of 0.4kg/m², equivalent to 2.8kg) 17 and young people up to the age of 21 (a study found multi-component interventions led to greater reduction in mean BMI (1.5kg/m² after a year) than either dietary intervention or physical-activity intervention alone. 18 These programmes are offered across a

range of formats, including digital or telemedicine interventions, face-to-face coaching, peer-support sessions and patient-centred counselling.

- A 2019 review concluded that web-based digital interventions led to greater short-term (but not long-term) weight loss than offline interventions in adults with overweight and obesity.¹⁹ An additional systematic review concluded that trials that incorporated text messaging or email (feedback, encouragement or coaching) lead to greater weight loss.²⁰
- Emerging evidence from the NHS Diabetes
 Prevention Programme (DPP) suggests that
 some digital providers can perform as well as
 face-to-face services and may be more effective
 in reaching younger people.²¹ The DPP also
 incorporates direct coaching and peer-support
 sessions, which have been effective in leading
 to weight loss and blood-glucose reductions in
 35% of patients attending at least one session,
 with those who attended more sessions achieving
 greater reductions.²²
- Commercial weight-management interventions are community-based interventions that can lead to significant weight loss through changes to diet and a recommendation to increase physical activity. A systematic review of five interventions (including well-known commercial weight-management programmes) found an average weight loss of 2.2kg after 12 months.²³ (These interventions can also be multi-component.)

- Very low (<800kcal/day) and low energy (800– 1200kcal/day) diet programmes are based on a calorie-restricted diet, provided either solely through meal-replacement products or with the addition of food.
 - Analysis suggests that including a very low energy diet (VLED) in a behavioural programme for adults results in greater weight loss (10.3kg) than the behavioural programme alone (6.4kg).²⁴
- Evidence shows that a weight-management programme that involves a low-calorie diet of about 850 or 810kcal/day using meal-replacement products leads to significant weight loss and diabetes remission in some adults with type 2 diabetes who have obesity and overweight.²⁵ Similar weight loss and type 2 diabetes remission results have been reported using a similar approach in different ethnic populations.²⁶

Psychological aspects of weight management

There is a bi-directional relationship between obesity and mental health, influenced by many physiological and psychosocial factors, ²⁷ including existing mental health disorders, medication used to treat mental illnesses and psychological experiences.

NICE guidance recommends that all weight-management interventions include a psychological component, such as by ensuring that community weight-management groups are delivered by people equipped with the skills to support behaviour change or by providing psychological input alongside medication or surgery. However, this support is inconsistent, and some people face delays and lengthy waits for follow-up appointments.²⁸

As discussed in chapter 2, experiencing weight stigma can also negatively affect psychological wellbeing.²⁹

'Set people up for success, not for failure. People with obesity need long-term support and compassionate care to support their mental health'

- participant in the lived experience panel

Pharmacological interventions ('anti-obesity' medications)

NICE criteria for pharmacotherapy (medication) are met for people with a BMI of 28kg/m² or above, depending on the treatment. Medication can be used as an adjunct to individual-level behavioural interventions for both adults and children,³⁰ as these interventions may not be sufficient on their own to achieve long-term weightloss outcomes, particularly when taking place within an environment that is not itself supportive.

Anti-obesity medications work in a number of different ways and can be effective: several weight-loss medications are associated with achieving at least 5% weight loss over a year. In all trials, participants received standard dietary and lifestyle counselling without a structured intervention; in one trial, all participants received intensive behavioural modification. Some medications used for treating type 2 diabetes (such as SGLT-2 inhibitors and GLP-1 analogue) can also lead to weight loss; however, access to these medications is not consistently provided across the country.

Surgical interventions

Three different bariatric surgery procedures for obesity are provided by the NHS: gastric bypass, sleeve gastrectomy and gastric band. The first two procedures enhance natural control of hunger and satiety by boosting chemical and nerve messages sent from the gut to the brain after meals. They also reduce stomach capacity, thereby reducing the amount of food that can be consumed. The gastric band results in a significant change to the way food is eaten and the experience of satiety.

Bariatric surgery is the most effective treatment for severe obesity, leading to remission or resolution of obesity-related co-morbidities and improved life expectancy.³² For example, there is evidence that bariatric surgery can lead to remission of type 2 diabetes in 30–62% of individuals following surgery.³³ In adults, gastric bypass produces the greatest long-term weight change of any intervention or weight-management programme, delivering significant cost-benefit over 30 years.³⁴

In England, bariatric surgery is recommended by NICE for people with a body mass index (BMI) over 40 kg/m², with lower thresholds for those with medical conditions that are likely to be improved with weight loss. NHS England states that all other non-surgical options must have been attempted without successful, sustained weight loss before these treatments can be accessed, unless a patient has a BMI of over 50 kg/m². 35 Modern bariatric surgery is very safe (with mortality similar to gallbladder removal) and is one of the most cost-effective healthcare

interventions assessed by NICE.³⁶ However, the NHS currently offers surgery to just 6,000 of the 2 million eligible adults each year, one of the lowest rates of any high-income country. Less than 1 per cent of those who could benefit receive this treatment option,³⁷ and there is significant regional variation in patients' ability to access bariatric surgery within the UK.

Treatment of obesity in children

Obesity in children can lead to related health issues including musculoskeletal conditions, elevated cardiovascular risk factors, type 2 diabetes, respiratory conditions including asthma and sleep apnoea, and non-alcoholic fatty liver disease. It can also affect psychosocial wellbeing.³⁸

There are considerable complexities in weight management for children and young people. Professionals need to build a rapport with children and their caregivers and consider the need for wider involvement from other services such as mental-health services.³⁹ Clinical guidance is clear that children and young people should have access to local weight-management services that meet their needs, dependent on their age, stage

of development, cultural background and any special educational needs.⁴⁰

There is some evidence that multi-component behaviour-changing interventions that incorporate diet, physical activity and behaviour change may be beneficial in achieving small, short-term reductions in BMI, BMI z score and weight in children aged 6 to 11.⁴¹ Likewise, there is some evidence showing pharmacological interventions may have small effects in reduction in BMI and weight in children and adolescents with obesity. However, many of these drugs are not licensed for the treatment of obesity in children and adolescents, or have been withdrawn.⁴² There is emerging evidence for the effectiveness of some new treatments on adolescents.⁴³

The patient perspective

'Look at mental health, individual circumstances, the patient's health. See the person in front of you and not as a "piece of data"... One size doesn't fit all'

- participant in the lived experience panel

Feedback from members of the lived experience panel highlighted a range of positive and negative experiences of discussing weight with health professionals, agreeing that it is important to them that health professionals ask permission to discuss weight before raising the subject. Evidence points to the importance of the language used in consultations, with weight-related terms (such as 'unhealthy weight' or 'overweight') generally preferred by patients. ⁴⁴ The panel emphasised the importance of health professionals taking into account different needs, circumstances and experiences of individuals when discussing weight and placing the focus of treatment on broader health outcomes, not just weight loss.

Conversations focused solely on weight may miss other important health-focused outcomes, such as improved quality of life and better mental health for people living with obesity. Psychological factors can play a key role in weight management (see box 17) and it is essential to ensure that health professionals understand the impact of stigma and the importance of treating patients with empathy and understanding (see chapter 2, where this is dealt with in detail) and that they are cognisant of the potential for eating disorders (see box 18).

Eating disorders and obesity

Obesity and eating disorders are not separate issues: there is often significant overlap between the two.

There is evidence that there are shared factors that increase susceptibility to both obesity and eating disorders, including genetic and psychosocial factors.⁴⁵ Binge-eating disorder is the most common eating disorder, affecting one in 50 people in their lifetimes in the UK. The 2019 Health Survey found that 41% of people with morbid obesity screen positive for an eating disorder. Estimates of the prevalence of binge-eating disorder in those seeking weight-management support vary from 10% to 50%.⁴⁶

People with eating disorders may have different needs when it comes to weight-management services, so it is important that the potential for eating disorders is considered through individual assessment and support planning. NICE guidance recommends that eating behaviour is assessed as part of the initial assessment and specialist assessment for eating disorders is required as part of the assessment for bariatric surgery.⁴⁷

The current system

The extent and range of the provision of weight-management services is variable across the UK. A 2018 inquiry from the Obesity APPG cited patchy access to services at all levels. It highlighted a freedom of information request that was submitted to its inquiry that found that only 52% of local authorities commissioned tier 1 services, while 82% commissioned tier 2 and 57% of CCGs commission Tier 3 services and 73% commission Tier 4 services.⁴⁸

Without consistently accessible secondary care being available for patients, primary care clinicians are not always able to refer patients to appropriate services. This makes it harder for clinicians to support the patient with advice on weight loss overall, as the best advice may rely, at least in part, on access to specialist support services that are in fact not available to patients.

The current system lacks flexibility, with the current tiers of treatment described as hurdles rather than a continuum, making it hard for people's individual needs to be met. ⁴⁹ People report that the system is confusing and challenging to navigate, with little control over decisions about their own treatment, and what intervention is available may not be sufficiently long-term.

This is a particular challenge given the uneven access to various types of treatment across the country, as certain services are contingent on completion of another treatment option without successful weight loss. Most notably, access to bariatric treatment and other surgical options is contingent, for the vast majority of people, on all other options being attempted without successful and sustained weight loss, including completing a tier 3

service programme⁵⁰ – and as there is patchy access to tier 3 services across the country,⁵¹ this in itself becomes a barrier to accessing surgical treatments.

Lack of appropriate funding is an ongoing barrier to accessing treatment. In England, local authorities have experienced historic year-on-year public health budget cuts, which is likely to have had an impact on their ability to commission weight-management services. The UK Government has announced an additional £100 million of funding to councils in England and NHS to expand access to weight-management services⁵² – but this has not been confirmed as a long-term funding package and includes only very limited provision for services for children and young people.

There has been a consistent problem of 'short-termism' in funding for obesity services. The 2018 inquiry by the APPG on Obesity received many examples of funding being provided to create or expand an obesity service for a set time period, at the end of which the service closed. Weight-management services are not commissioned from a single organisation. Different 'tiers' of services are funded by either the NHS and local government.⁵³ with additional funding and support for particular weightmanagement services from central government, often implemented through the DHSC or (in the past) through PHE.54 The resulting commissioning system is highly complex and leaves services reliant on multiple funding sources, which is itself a barrier both for clinicians and patients to navigate when seeking to access treatment and for local health systems looking to develop new capacity for weight-management services.

There is a significant differential in take-up of services across socioeconomic and ethnic groups. Services are not always designed or targeted to meet the needs (lifestyle, behavioural, cultural, psychosocial) or circumstances of specific population groups including those on low

incomes, or from ethnic minorities.⁵⁵ For example 'traditional' weight-management services are not always designed for men and research has shown men are underrepresented in services.⁵⁶

Action needed to reach the vision

Urgent action is needed across all areas dealt with in this chapter: ensuring equitable access, patient-centred care and encouraging uptake, and addressing data and funding gaps. To achieve the vision of this strategy, there must be equitable access to effective treatments across the pathway, with healthcare professionals providing support in a compassionate and non-stigmatising way (see chapter 2).

The foremost issue to be addressed is the fragmented and inequitable provision of, and access to, treatment services. Despite the existence of clinical guidance on appropriate weight-management treatment, there is a lack of consistent local care pathways, resulting in people with overweight and obesity not always being able to access services that would help them to improve their health.⁵⁷

This inequality in access can only be addressed by requiring that every local health system provides the full range of effective treatment services, ensuring that these services are tailored to, and have adequate capacity for, the needs of the local population. Such access could be mandated centrally, such as through the UK Government's NHS Mandate, but it would have to be implemented by local health systems. NHS England and NICE must work collaboratively to ensure that guidance on weight-management services appropriately reflects the importance of universal access, supporting the development and expansion of these services where they do not currently exist with sufficient capacity for the local population.

The Covid-19 pandemic also reduced access, but many services adapted quickly to provide support through remote delivery. These innovations should be fully evaluated to understand their effectiveness and explore any potential impact on inequality, with findings used to shape future service delivery. The provision of these services should be continued for those that wish to access them, but in-person provision must also be provided for those unable or unwilling to access or engage with digital services.

The introduction of **flexible pathways** would enable each person and their primary care physician jointly to assess and agree the most suitable treatment options. This would include decoupling eligibility for particular treatment services from current requirements to complete other treatment services prior to access, and prioritising access to the most appropriate treatment option for the patient's needs in a timely manner.

Data is crucial to delivering tangible, system-level improvements. The prevalence, contributing factors and nature of obesity varies greatly across geographic and demographic settings, meaning that obesity services must be tailored to the needs of the local population. As such, each local health system should routinely undertake quantitative monitoring of **service provision:** recording and evaluating uptake and impact of each weight-management service, reporting this to the local health system leadership team with responsibility for the oversight of obesity services. This will identify areas for potential improvement and ultimately enable the development of a validated patient-reported outcome measure to enable qualitative evaluation of patient perspectives on all aspects of services.

Improved reporting and data analysis at a national level would also support future improvements in service delivery. This should look to build on work currently in development at NHS England through the proposed National Obesity Audit, which will be modelled on the NHS National Diabetes Audit.⁵⁹

Obesity requires lifelong management with long-term multidisciplinary support, and, for services to be successful, funding systems must be sustainable over an extended period. Ideally all systems would be permanently funded, but where this is not possible there should be a minimum funding term for all weight-management services (for example, no less than five years).

- Any moves to improve the effective delivery of weight-management services would benefit from measures to simplify and standardise the structures by which they are commissioned.
- The inequity in provision across age groups (with very limited availability of services for adolescents) must be addressed if overall health inequalities are to be narrowed, with measures undertaken to actively encourage uptake amongst the most underrepresented groups. This should include targeted outreach campaigns at both a national and local level (by local health systems). Clinicians should also receive training and guidance on sharing appropriate information on these services with patients, with a view to encouraging uptake overall and specifically among those most at risk groups.
- Most people will have their GP as their first point of contact, and many GPs are well equipped to discuss weight and health with patients and carers in a constructive and compassionate way – but feedback from the lived experience panel highlights that there is more that could be done. Recent research has also highlighted that many people living with obesity report experiencing complex and varied emotions after these discussions about weight.⁶⁰ Whilst mindful of the huge pressures GP practices find themselves under, GPs and other health professionals can ensure, where they have time to do so, that they are equipped to hold these conversations sensitively by using training resources and guides (such as Health Education England's healthier weight competency framework e-learning programme and a consensus statement on language developed by people with obesity and a range of health professionals and experts⁶¹) and being mindful of the language used, as different people prefer different terminology. This will usually require using systematic care and support planning conversations to identify needs, agreeing goals together with the individual and signposting the range of services available in their area, including non-NHS services and social-prescribing opportunities.

Finally, if access to services and engagement of people living with overweight or obesity are to be improved, people living with obesity must themselves be involved in designing services.⁶²

This strategy has also identified a need for further research in areas where there are shortfalls in the current evidence base. This includes:

- an assessment of the latest developments in treatment options, across the entire range of services, and the potential impact of adapting existing weightmanagement services to better make use of these new options;
- effectiveness and take-up of weight-management support and interventions for families, including young children;
- impact of regular monitoring of weight in healthcare settings on motivation of patients and healthcare professionals; and
- how to increase take-up and completion of weightmanagement services, including how to address the stigma preventing people from using or attending services.

Recommendations

Deliver a sustainable strategy for the NHS and local authorities to guarantee consistent and equitable access to all levels of effective weight management services.

This should include the following:

- Centrally mandating the provision of all levels of effective weight management services in every local health system across the country, ensuring there is embedded psychological support at every level, and the delivery of a range of virtual and traditional services.
- Reviewing and updating NICE and NHS England guidance to improve the effectiveness of service delivery by:
 - Encouraging greater standardisation and simplification of commissioning of weight management services.
 - Introducing more flexible patient pathways, where patients and their primary care physicians jointly review and agree on the most appropriate treatment option to pursue.

Responsibility

DHSC, NHSE, NICE, local authorities, local health systems



Use data to ensure that services are tailored to the needs of the population. This should include the following:

- Analysis of the planned National Obesity Audit data to inform future service planning.
- Quantitative evaluation of local service provision to identify areas for improvement in uptake and impact.
- Development of validated patient reported outcome measures.

NHSE, local health systems



Deliver greater sustainability of funding across the entire range of weight management services, both in central government funding and in local health system budgets. This should include a minimum term for all weight management funding.

HMT, DHSC, NHSE, local health systems



Deliver initiatives across the entire healthcare system to increase the uptake of weight management services, particularly amongst socioeconomic groups that are most under-represented in these services. These should include targeted outreach campaigns to encourage uptake from under-represented demographic groups, and encouraging healthcare professionals to take up training and development opportunities about discussing weight and health with patients.

DHSC, local health systems



The following areas were identified as research gaps:

- Effectiveness and take-up of weight management support and interventions for families.
- The impact of regular monitoring of weight in healthcare settings on motivation of patients and healthcare professionals.
- Effective approaches to maintain weight loss.
- An assessment of the latest developments in treatment options, across the
 entire range of services, and the potential impact of adapting existing weight
 management services to make better use of these options.
- Effectiveness of new commercial self-management services.

Research funders



References

- 1. The GBD 2015 Obesity Collaborators 2017 'Health effects of overweight and obesity in 195 countries over 25 years' N Engl J Med. 377(1): 13–27 https://doi.org/10.1056/NEJMoa1614362
- 2. N. Vidra et al. 2019 'Impact of obesity on life expectancy among different European countries: secondary analysis of population-level data over the 1975–2012 period' *BMJ* Open 9: e028086 https://doi.org/10.1136/bmjopen-2018-028086
- 3. Prospective Studies Collaboration (G. Whitlock et al.) 2009 'Body-mass index and cause-specific mortality in 900 000 adults: collaborative analyses of 57 prospective studies' *The Lancet* 373(9669): 1083–96 https://doi.org/10.1016/S0140-6736(09)60318-4
- 4. W.T. Garvey et al. 2016 'American Association of Clinical Endocrinologists and American College of Endocrinology Comprehensive Clinical Practice Guidelines for Medical Care of Patients with Obesity' *Endocr Pract* 22: 1–20 https://doi.org/10.4158/EP161365.GL
- 5. E. Zomer et al. 2016 'Interventions that cause weight loss and the impact on cardiovascular risk factors: a systematic review and meta-analysis' Obes Rev 17: 1001–11 https://doi.org/10.1111/obr.12433
- 6. NICE 2015 'Clinical Knowledge Summaries: Obesity' https://cks.nice.org.uk/obesity#!scenario
- 7. A. Fabricatore et al. 2011 'Intentional weight loss and changes in symptoms of depression: a systematic review and meta-analysis' *International Journal of Obesity* 35: 1363–76 https://doi.org/10.1038/ijo.2011.2
- 8. D.H. Ryan and S.R. Yockey 2017 'Weight loss and improvement in comorbidity: differences at 5%, 10%, 15%, and over' *Curr Obes Rep* 6(2): 187–94 https://doi.org/10.1007/s13679-017-0262-y
- 9. NICE 2021 'Obesity management in adults' https://pathways.nice.org.uk/pathways/obesity/obesity-management-in-adults.pdf
- 10. T.H. Inge et al. 2017 'Long-term outcomes of bariatric surgery in adolescents with severe obesity (FABS-5+): a prospective follow-up analysis' *Lancet Diabetes Endocrinol*. 5: 165–73 https://doi.org/10.1016/S2213-8587(16)30315-1
- 11. NICE 2014 Weight Management: Lifestyle Services for Overweight or Obese Adults (PH53) https://www.nice.org.uk/guidance/ph53
- 12. ibid.
- 13. L. Retat et al. 2019 'Screening and brief intervention for obesity in primary care: cost-effectiveness analysis in the BWeL trial' *Int J Obes* (Lond) 43: 2066–75 https://doi.org/10.1038/s41366-018-0295-7
- 14. P. Aveyard et al. 2016. 'Screening and brief intervention for obesity in primary care: a parallel, two-arm, randomised trial' *The Lancet* 388: 2492–500 https://doi.org/10.1016/S0140-6736(16)31893-1
- 15. J. Hartmann-Boyce et al. 2015 'Self-help for weight loss in overweight and obese adults: systematic review and meta-analysis' *Am J Public Health* 105(3): e43-e57 https://doi.org/10.2105/AJPH.2014.302389
- 16. J.A. Batsis 2017 'Weight loss interventions in older adults with obesity: a systematic review of randomized controlled trials since 2005' *JAGS* 65: 257–68 https://doi.org/10.1111/jgs.14514
- 17. J.L. Colquitt et al. 2016 'Diet, physical activity, and behavioural interventions for the treatment of overweight or obesity in preschool children up to the age of 6 years' *Cochrane Database of Systematic Reviews* https://doi.org/10.1002/14651858.cd012105
- 18. S.S. Selvendran et al. 2018 'Treatment of obesity in young people a systematic review and meta-analysis' *Obes Surg*, 28: 2537–49 https://doi.org/10.1007/s11695-018-3285-x
- 19. A.M. Beleigoli et al. 2019 'Web-based digital health interventions for weight loss and lifestyle habit changes in overweight and obese adults: systematic review and meta-analysis' *J Med Internet Res* 21(1): e298 https://doi.org/10.2196/jmir.9609
- 20. J.K. Allen et al. 2014 'Technology-assisted weight management interventions: systematic review of clinical trials' *Telemedicine Journal and E-health: the Official Journal of the American Telemedicine Association* 20(12): 1103 20 https://doi.org/10.1089/tmj.2014.0030
- 21. BDA 2020 Discussion Paper: NHSE&I Procurement of Digital Weight Management Services https://www.bda.uk.com/uploads/assets/7399bccc-8f8a-4180-ae34918e59fc92ff/NHSEI-Weight-Management-Service-discussion-paper-BDA-response.pdf
- 22. J. Valabhji et al. 2020 'Early outcomes from the English National Health Service Diabetes Prevention Programme' *Diabetes Care* 43(1): 152–60 https://doi.org/10.2337/dc19-1425
- 23. J. Hartmann-Boyce et al. 2014 'Behavioural weight management programmes for adults assessed by trials conducted in everyday contexts: systematic review and meta-analysis' *Obes Rev* 15: 920–32 https://doi.org/10.1111/obr.12220 and J. Hartmann-Boyce et al. 2014 'Diet or exercise interventions vs combined behavioral weight management programs: a systematic review and meta-analysis of direct comparisons' *Nutrition and Dietetics* 114(10) 1557–68 https://doi.org/10.1016/j.jand.2014.07.005
- 24. H.M. Parretti et al. 2016 'Clinical effectiveness of very-low-energy diets in the management of weight loss: a systematic review and meta-analysis of randomized controlled trials' *Obes Rev* 17: 225–34 https://doi.org/10.1111/obr.12366
- 25. M. Lean et al. 2019 'Durability of a primary care-led weight-management intervention for remission of type 2 diabetes: 2-year results of the DiRECT open-label, cluster-randomised trial' *Lancet Diabetes & Endocrinology* 7(5): 344–55 https://doi.org/10.1016/S2213-8587(19)30068-3 and N.M. Astbury et al. 2018 'Doctor Referral of Overweight People to Low Energy total diet replacement Treatment (DROPLET): pragmatic randomised controlled trial' *BMJ* 362: k3760 https://doi.org/10.1136/bmj.k3760
- 26. S. Taheri et al. 2020 'Effect of intensive lifestyle intervention on bodyweight and glycaemia in early type 2 diabetes (DIADEM-I): an open-label, parallel-group, randomised controlled trial' *Lancet Diabetes & Endocrinology* 8(6): 477–89 https://10.1016/S2213-8587(20)30117-0
- 27. A.J. Cameron et al. 2012 'A bi-directional relationship between obesity and health-related quality of life: evidence from the longitudinal AusDiab study' *International Journal of Obesity* 36(2): 295 303 https://doi.org/10.1038/ijo.2011.103
- 28. British Psychological Society 2018 *Briefing Paper: Understanding Obesity: The Psychological Dimensions of a Public Health Crisis* https://www.bps.org.uk/sites/www.bps.org.uk/files/News/News%20-%20Files/BRE%2017%20Obesity%20WEB.pdf
- 29. G. Ciciurkaite and B.L. Perry 2018 'Body weight, perceived weight stigma and mental health among women at the intersection of race/ethnicity and socioeconomic status: Insights from the modified labelling approach' *Sociology of Health & Illness* 40(1): 18–37 https://doi.org/10.1111/1467-9566.12619
- 30. S.S. Selvendran et al. 2018 'Treatment of obesity in young people a systematic review and meta-analysis' *Obes Surg* 28: 2537–49 https://doi.org/10.1007/s11695-018-3285-x

- 31. R. Khera et al. 2016 'Association of pharmacological treatments for obesity with weight loss and adverse events: a systematic review and meta-analysis' *JAMA* 315: 2424–34 https://doi.org/10.1001/jama.2016.7602
- 32. F. Rubino et al. (on behalf of the delegates of the 2nd Diabetes Surgery Summit) 2016 'Metabolic surgery in the treatment algorithm for type 2 diabetes: a joint statement by international diabetes organizations' *Diabetes Care* 39(6): 861–77 https://doi.org/10.2337/dc16-0236
- 33. ibid.
- 34. A. Avenell et al. 2018 'Bariatric surgery, lifestyle interventions and orlistat for severe obesity: the REBALANCE mixed-methods systematic review and economic evaluation' *Health Technol Assess* 22(68): 1–246 https://doi.org/10.3310/hta22680
- 35. NHS England 2016 Appendix 7 *Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Surgery for Severe and Complex Obesity* https://www.england.nhs.uk/wp-content/uploads/2016/05/appndx-7-obesity-surgery-guid.pdf
- 36. A. Avenell et al. 2018 'Bariatric surgery, lifestyle interventions and orlistat for severe obesity: the REBALANCE mixed-methods systematic review and economic evaluation' *Health Technol Assess* 22(68): 1–246 https://doi.org/10.3310/hta22680
- 37. R. Welbourn et al. 2016. 'Why the NHS should do more bariatric surgery; how much should we do?' BMJ 353: i1472 https://doi.org/10.1136/bmj. i1472
- 38. LJ. Ells et al. 2018 'Interventions for treating children and adolescents with overweight and obesity: an overview of Cochrane reviews' *Int J Obes* 42: 1823–33 https://doi.org/10.1038/s41366-018-0230-y
- 39. L. Stewart, S. Easter and the BDA's Obesity Specialist Group 2021 'British Dietetic Association's Obesity Specialist Group dietetic obesity management interventions in children and young people: review & clinical application' *J Hum Nutr Diet* 34: 224–32 https://doi.org/10.1111/jhn.12834
- 40. National Institute for Health and Care Excellence 2021 'Obesity management in children and young people' https://pathways.nice.org.uk/pathways/obesity/management-in-children-and-young-people.pdf
- 41. E. Mead et al. 2017 'Diet, physical activity and behavioural interventions for the treatment of overweight or obese children from the age of 6 to 11 years' *Cochrane Database of Systematic Reviews* 6, art. no. CD012651 https://doi.org/10.1002/14651858.CD012651
- 42. E. Axom et al. 2016 'Drug interventions for the treatment of obesity in children and adolescents' *Cochrane Database of Systematic Reviews* 11, art. no. CD012436 https://doi.org/10.1002/14651858.CD012436
- 43. A.S. Kelly et al. 2020 'NN8022-4180 Trial Investigators. A randomized, controlled trial of Liraglutide for adolescents with obesity' N Engl J Med. 382(22): 2117-28 https://doi.org/10.1056/NEJMoa1916038
- 44. A. Brown and S.W. Flint 2021 'Preferences and emotional response to weight-related terminology used by healthcare professionals to describe body weight in people living with overweight and obesity' *Clinical Obesity* 11(5): e12470 https://doi.org/10.1111/cob.12470
- 45. J. Day et al. 2009 'Eating disorders and obesity: two sides of the same coin?' *Epidemiologia E Psichiatria Sociale* 18(2): 96–100 https://doi.org/10.1017/S1121189X00000956
- 46. A. Tuthill et al. 2006 'Psychiatric co-morbidities in patients attending specialist obesity services in the UK QJM: *An International Journal of Medicine* 99(5): 317–25 https://doi.org/10.1093/qjmed/hcl041
- 47. NICE 2014 '1.2 Identification and classification of overweight and obesity' in *Obesity: Identification, Assessment and Management (Clinical Guideline* [CG189]) https://www.nice.org.uk/guidance/cg189/chapter/1-Recommendations#identification-and-classification-of-overweight-and-obesity
- 48. APPG on Obesity 2018 The Current Landscape of Obesity Services: A Report from the All-Party Parliamentary Group on Obesity https://static1. squarespace.com/static/5975e650be6594496c79e2fb/t/5af9b5cb03ce64f8a7aa20e5/1526314445852/APPG+on+Obesity+-+Report+2018.pdf)
- 49. J.M. Hazlehurst et al. 2020 'Developing integrated clinical pathways for the management of clinically severe adult obesity: a critique of NHS England policy' Curr Obes Rep 9: 530–43 https://doi.org/10.1007/s13679-020-00416-8
- 50. NHS England 2016 Appendix 7 *Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Surgery for Severe and Complex Obesity* https://www.england.nhs.uk/wp-content/uploads/2016/05/appndx-7-obesity-surgery-guid.pdf
- 51. APPG on Obesity 2018 The Current Landscape of Obesity Services: a Report from the All-Party Parliamentary Group on Obesity https://static1. squarespace.com/static/5975e650be6594496c79e2fb/t/5af9b5cb03ce64f8a7aa20e5/1526314445852/APPG+on+Obesity+-+Report+2018.pdf)
- 52. DHSC 2021 'New specialised support to help those living with obesity to lose weight' (press release, 4 March) https://www.gov.uk/government/news/new-specialised-support-to-help-those-living-with-obesity-to-lose-weight
- 53. PHE 2015 National Mapping of Weight Management Services, pp. 7–9 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/484115/Final_Weight_Management_Mapping_Report.pdf
- 54. Public Health Matters 2021 Investing in Weight Management Services https://publichealthmatters.blog.gov.uk/2021/03/25/investing-in-weight-management-services/
- 55. NHS England 'Tier 2 weight management services' https://www.england.nhs.uk/ltphimenu/prevention/tier-2-weight-management-services/
- 56. ibid
- 57. Public Health England 2015 National Mapping of Weight Management Services: Provision of Tier 2 and Tier 3 Services in England https://assets. publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/484115/Final_Weight_Management_Mapping_Report.pdf
- 58. Public Health England 2020 Supporting Weight Management Services during the COVID-19 Pandemic: Phase I Insights https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915274/WMS_Report.pdf
- 59. NHS Digital 2021 National Diabetes Audit Programme https://digital.nhs.uk/data-and-information/clinical-audits-and-registries/national-diabetes-audit
- 60. C.A. Hughes et al. 2021 'Changing the narrative around obesity in the UK: a survey of people with obesity and healthcare professionals from the ACTION-IO study' *BMJ Open* 11: e045616 https://doi.org/10.1136/bmjopen-2020-045616
- 61. C. Albury et al. 2020 'The importance of language in engagement between health-care professionals and people living with obesity: a joint consensus statement' *The Lancet Diabetes and Endocrinology* 8(5): 447-55 https://doi.org/10.1016/S2213-8587(20)30102-9 and e-Learning for Health Care (undated) 'About the Healthier Weight Competency Framework programme' https://www.e-lfh.org.uk/programmes/healthier-weight-competency-framework/
- 62. Z.C. Skea et al. 2019 'Acceptability and feasibility of weight management programmes for adults with severe obesity: a qualitative systematic review' *BMJ Open* 9: e029473 http://dx.doi.org/10.1136/bmjopen-2019-029473



10. Better policy, greater impact

Our vision

A policy environment in which health is a priority, making sustained progress with an evidence-informed approach to healthy weight for all.

"We need multiple interventions [to reduce obesity], each with modest incremental impact. We do not yet know the optimal mix'

Professor Chris Whitty, Chief Medical Officer for England¹

It is fair to say that no country in the world has yet identified the full range, let alone the optimal mix, of interventions needed to reduce obesity. The evidence and analysis set out in this strategy is intended to contribute to available knowledge about interventions, both those informed by existing strong evidence as well as others in need of further study.

Two overarching findings are clear. First, given that many factors, both personal and societal, increase the risk of obesity, the evidence now points convincingly to the need for simultaneous action over time at multiple levels to have any hope of achieving change. Secondly, to move towards that 'optimal mix' of interventions, as a country we need to raise our game in the way we design, implement, evaluate and adapt policies. This is the only way to ensure that policies result in action and, as an important by-product, further strengthen the evidence of what works. This chapter therefore recommends ways that the Government can get better at developing, implementing and improving policies that promote healthy weight.

Time for change

Successive governments have attempted to grapple with rising obesity over the last 30 years, and the impact of the Covid-19 pandemic has made more compelling the imperative for action: people with overweight or obesity are at greater risk of serious illness or death from Covid-19, as well as from many other life-threatening diseases.²

Encouragingly, the range of national-level policy interventions had started to widen even before the pandemic. As discussed in chapter 1, national approaches

to healthy weight historically have been dominated by policies that look to individuals and businesses voluntarily changing their own behaviour.³ However, such efforts to solve this health challenge one person and one business at a time are proving ineffective at scale, as evidence provided in this strategy shows.

Since 2018, the emphasis has started to shift, with government strategies in England, Scotland and Wales now proposing and deploying more regulatory and

legislative measures. Governments' recognition of the mounting evidence that, to improve healthy weight across the population as a whole and to close the inequality gap by tackling the obesogenic environments, is essential.

That said, a 'pendulum' approach to policy in this area must be avoided. Further population-level measures aimed at system change, coupled with targeted interventions to support those already living with excess weight are needed. It is of concern that legislative and regulatory interventions in this area of public health

continue to be contested, particularly where commercial interests are at stake. Such a reality only reinforces the need for sustained political leadership, along with actions based on strong evidence that are effectively implemented and rigorously evaluated.

Continuing and sustained leadership from current and future Prime Ministers and high-level politicians of all parties will be essential now and well into the future to help bring about the policy shifts that can support people to obtain and retain a healthy weight.

Better policy

Leadership of UK government policy on healthy weight will now be in the remit of the new Office for Health Improvement and Disparities (OHID), based in the DHSC, superseding PHE's role. Addressing obesity, and its contribution to health inequalities, has been flagged as one key area for focus. This ongoing focus on healthy weight is very welcome and the OHA particularly supports the close oversight that the CMO and new Deputy CMO will have of OHID in this new arrangement.

The OHA also welcomes the creation of a new cross-government ministerial board on prevention. Such a board needs to be enduring and to have status and influence, achieved by appointment of a senior, Cabinet-level minister who carries authority within and across government as chair. These changes together are an opportunity that must be seized to develop clearer delivery and accountability arrangements.

There is much for this new policy infrastructure to do. The story of evidence gathering, policy development and implementation, so far at least, reveals many weaknesses and shortcomings. A recent analysis held up a mirror to policymaking on obesity between 1992 and 2020, and found as many as 14 government strategies, with 689 wide-ranging policies all seeking to address weight and improve health. Many of these policies, it turns out, were duplicated across multiple strategies and remained unimplemented. In addition, just over three-quarters were proposed without any plans for implementation, monitoring or evaluation. Well-intentioned though these policies may have been, this compelling analysis reveals basic weaknesses in the policymaking process for healthy weight that must be addressed if there is to be progress.

The reality is that evidence of 'what works' at a population level to reduce obesity is constantly evolving, with an understanding of effectiveness becoming clearer as a policy is implemented (through formal evaluations).

Monitoring and evaluating the impact of policy is needed with, as necessary, modification of policies on the basis of evaluative feedback, creating an iterative cycle of evidence and implementation. Evaluation strategies should be designed to be flexible and cumulative, building the evidence incrementally over time, and progressively piecing together the complex jigsaw of what works.

Good practice in policy making and implementation will benefit from following the eight principles below:

- A commitment to policy-making that is informed by rigorous assessment of evidence at every stage of the iterative cycle of policy development and implementation, including learning from monitoring and evaluation of implementation.
- The mechanisms and funding to enable prospective impact assessments, independent evaluations and appropriate monitoring and surveillance of all policies.
- Well-developed policy delivery plans to accompany policy announcements (to include consultation, implementation, evaluation, budget and timescale).
- The publication, in advance of implementation, of prospective economic, health, equity and environmental impact assessments of every policy proposal, ensuring that the judgements made in weighing up the costs and benefits of these assessments are transparent.
- Consultation with the public and relevant stakeholders on policy proposals, ensuring that the views of the public and those with lived experience of obesity can be taken into account in policy design.
- Commissioning of independent evaluations of each policy proposal via the National Institute for Health Research, to include a broad range of outcome and process measures (health, social and economic), so that the policy impacts across whole systems can be assessed.

- Independently peer-reviewed publication of findings of policy evaluations in full in a timely fashion (for example, within six months of the end of an evaluation, with interim reports where meaningful).
- Facilitation of local authorities' ability to test and learn, with provision of guidance on best practice evaluation (including common standards for data collection and outcome measures) when evaluating locally initiated policies on healthy weight.

Improved implementation and cross-government working

The variable capacity of governments to plan and successfully implement policy continues to be a subject of critical debate in many areas of government action. In that sense, the poor record on healthy weight is far from unique. A study from the independent Institute for Government (IfG) highlighted the challenges of implementation, particularly when it comes to complex issues. The IfG reviewed government action in four complex and long-term policy domains – climate change, international development, anti-poverty and rough sleepers – to see if it was possible to discern some design principles for managing implementation to tackle challenges in the

future. Undoubtedly, reducing obesity is both a complex and long-term challenge: costs and benefits are distributed unevenly over time and fall across different sectors; the policies are intellectually contested, politically contentious and hard to deliver; and the causes and interventions span government departmental silos. There are many potential and still highly relevant lessons in the IfG reports for the next stage of obesity policy implementation. The OHA urges governments and parliamentarians to draw on these insights, as well as on the more obvious sources of evidence from public-health research (box 19).

Tackling complex public-policy challenges: some lessons from the Institute for Government

- Understand and use the moments that are especially propitious to the establishment of new long-term policies for healthy weight, this particularly includes the impact of Covid-19.
- Long-term policymaking benefits from the support of central, strategic capacity in Whitehall OHID is well placed to take on this role, as addressing obesity and its contribution to inequalities is one of its priorities.
- The focus on complex challenges can be lost at moments of political transition. Using a more rigorous project management and implementation discipline could therefore help sustain focus over time and mitigate the risk of variable political momentum.

One area where progress is still needed is a **consistent** drive for implementation that better coordinates activity across many stakeholders. Many of the systemic factors that influence healthy weight and obesity at a population level are outside the responsibility of the DHSC and within the remit of other government departments, notably Defra, the FSA, BEIS and the DfE, as well as local government. Policy progress in recent years has been constrained by ineffective cross-government working. As recently as 2020, for example, the National Audit Office published a report criticising the Government's approach to childhood obesity,7 highlighting the lack of mechanisms for crossgovernment accountability. The report highlighted specifically that DHSC has been unable to hold other government departments to account for delivery of policies that fall outside of DHSC's own control.

New ways of working that build bridges between government departments are sorely needed, hence the OHA's welcome for the new ministerial cross-government board on prevention. To be effective, however, such a board will need to be underpinned by much stronger and more consistent governance arrangements between departments than have existed up to now. The influence and leadership of the UK's four CMOs could play a crucial role here, both within and across their individual jurisdictions.

'It's important that policy ownership and the drive for change for improving healthy weight continues to be located within health departments. However, this must be accompanied with levers to strengthen their individual and collective authority to lead and coordinate implementation, particularly with local authorities and local communities'

- Dame Una O'Brien

One further way to strengthen coordination would be to make more use of the approaches pioneered by the Infrastructure and Projects Authority (IPA). The IPA is government's centre of expertise for infrastructure and major projects and has, over the last decade, significantly improved the UK's approach to managing and implementing large-scale, long-term infrastructure, transformation and service-delivery projects, drawing on experience from industry and academia. DHSC already

leads seven projects that are overseen as part of this initiative. There is much in the IPA's approach that could be applied to a whole range of cross-cutting health and prevention projects. Serious consideration should be given to the inclusion of reducing obesity as a major transformation project within the IPA's portfolio. At the very least, the IPA's support tool for novel or complex major projects offers invaluable source material and guidance of how to lead change at scale.⁸

Enhancing research into population health and prevention of ill-health

In recent years, there has been an encouraging increase in research initiatives relevant to healthy weight.

These include:

- the development of the multi-funder UK Prevention Research Partnership (coordinated by the Medical Research Council), with its focus on understanding system change and the wider determinants of health;
- a significantly increased focus from the National Institute of Health Research (NIHR) on driving partnerships with local government (such as via the School for Public Health Research, the Public Health Intervention Responsive Studies Teams scheme, and the proposed Health Determinants Research Collaborations); and
- specific efforts on research to transform food systems, such as the UKRI Food Systems Transformation consortia and doctoral training centre.

In addition, public-health agencies across the UK contribute important evidence by providing in-house analytical expertise and relevant reports and, in some cases, commissioning studies.

The need to stimulate interdisciplinary research on the wider health determinants of public health, including obesity, is now central to the work of the Strategic Coordination of Health of the Public Research (SCHOPR)

Committee, a group of leading funders across the UK with the remit of coordinating public-health research. However, despite all of this activity, the level of research funding dedicated to tackling obesity as an intractable population-health challenge remains well below that dedicated to other important challenges, such as dementia, or to biomedical research such as drug discovery. The broad category of 'Prevention', for example, which includes most obesity research, accounted for just 5.6% of total national health research spend in 2018.9

In reviewing research evidence to inform this strategy, a number of gaps have been highlighted throughout. This strategy makes recommendations for further research and improved monitoring and surveillance, especially including new policies and interventions designed to achieve healthy weight across the population. There is a role for SCHOPR, together with the independent Office for Strategic Coordination of Health Research (OSCHR) and other research funders to review the research and funding landscape. To turn the tide on obesity in the next 10 years, there must be sustained investment at a level substantially higher than has been devoted to obesity to date. New investment in programmatic research on obesity, for example at a level equivalent to the funding for NIHR's Biomedical Research Centres, will be needed to ensure a continuous flow of data, evidence and innovation, which can guide decisions on interventions.

The role of industry

The UK food sector is a significant driver of economic growth and employment: in 2018 it employed over 3.5 million people and added around £110 billion of gross value to the economy. The food industry is highly heterogeneous, both in terms of size and outlook. There are many different types of businesses involved: in 2018, excluding beverages, around eight in ten food businesses were small- or medium-sized enterprises.

However, the existing economic model within which the food industry operates skews what is produced and marketed towards the highly processed, calorie-dense foods that are associated with adverse health outcomes - what the NFS has termed the 'Junk Food Cycle'. The low price and ready availability of these unhealthy foods are a key commercial determinant of poorer health and widen already significant health inequalities across the UK.

Unfortunately, there continue to be heavily financed lobbying efforts from some parts of the food industry along with other commercial industries likely to be most affected by stronger regulations (such as the advertising industry) to weaken regulatory proposals and to dissuade governments from acting. In this context, there has been significant reliance on voluntary initiatives – such as reformulation targets or advertising restrictions to discourage availability of these foods – but these have failed to deliver change at the scale required to address obesity (see chapters 4, 5 and 7).

However, across the industry there is now emerging evidence that a focus on social goals, including the health of consumers, can be good for business and lead to better performance in the long term. Some food-industry leaders are speaking out, welcoming moves towards further regulation, because it is seen as providing a level playing field, affecting all industry players equally and enabling forward-thinking companies to thrive.

'The temptation with regulation is to hit the big guys... If we regulate and it's the big guys only, we just squeeze the balloon at one end. Over half the market is independents. We've got to deal with that end of the market, otherwise it's not a level playing field'

- Roger Whiteside, Greggs CEO¹²

In this era of the pandemic, the responsibility of governments for the health of their population has never been more visible. There is now an important opportunity for UK and devolved governments to reset the relationship with industry, by starting a process to set out new fair and ethical principles for engaging with commercial stakeholders in healthy weight policy to protect policy from corporate interference. There are existing reports that may provide a starting point for this process, including the WHO's framework for engagement with non-state actors¹³ and PHE's principles for engaging with industry stakeholders, ¹⁴ among others. Key principles to be kept in mind in relation to interactions with the food industry include: transparency, clarity on the objectives of any interaction, protecting public-health policies from commercial interests, accountability and governance. Stakeholders being regulated should be consulted about the implementation of policies, but should not be involved in the development or evaluation of policies.

Action at the international level

Worldwide, the incidence of obesity has nearly tripled since 1975. In 2016, more than 1.9 billion people aged 18 year and over were above a healthy weight. That is one person in every four and, of these, over 650 million are living with obesity. The rising costs of treating people with health conditions linked to obesity is a major threat to health systems everywhere.

The UK is not alone in making efforts to improve population-level healthy weight. As countries look to learn from each other, there is considerable international interest in the measures the UK Government has successfully implemented (such as the SDIL – see chapter 5), or to which it has committed (such as advertising and promotions restrictions – see chapter 7). It is vital that the UK Government takes the opportunity to share information, not only about successful approaches such as how regulation has substantially reduced sugar in

soft drinks, but about learning lessons from the less successful approaches that informed the Government's policy direction. This should include being open about the limitations of voluntary approaches to improving population diets, such as the Public Health Responsibility Deal and the sugar reduction programme.

A number of this strategy's recommendations seek to address the activities of the food and advertising industries, within which many companies operate as multinationals. The ability of any one government acting alone, including the UK Government, to regulate in a cross-border space is highly constrained, so **greater impact will come from countries working together to align policy approaches to influence the activity of global industries.** The OHA encourages the Government to work through international forums to share experiences and develop aligned approaches, including the WHO.

Recommendations

Continue to focus on addressing the drivers of obesity across the life course, ensuring stronger arrangements to secure cross-government co-operation, action and accountability in tackling obesity. This should include the following:

- the new cross-government ministerial board on prevention should be enduring and chaired by a senior, Cabinet-level minister who carries authority within and across government;
- Consider placing the implementation strategy for healthy weight under the umbrella of the Infrastructure and Projects Authority.

Responsibility

All government departments. Led by DHSC & OHID



Identify opportunities to share the UK's experience of successful and less successful approaches to healthy weight policy internationally and work collaboratively with other countries to bring in aligned policies that incentivise global change across the food system.

DHSC, OHID, Defra, FCDO



The four UK governments should work together to develop fair and ethical principles for interacting with the food industry, underpinned by the latest evidence on the commercial determinants of health.

Health departments to lead



Strengthen the policymaking process across the design, implementation and evaluation of policies on obesity and healthy weight, ensuring detailed policy plans are published along with economic, health, equity and environmental impact assessments.

All government departments



Increased investment into obesity related research is required. SCHOPR should review the key evidence gaps in research and policy evaluation, review research investment in the area, and identify areas and mechanisms (including role of funders) for improving the evidence base for healthy weight policy through increased research investment and the evaluation of policies as they are implemented.

Research funders

In reviewing relevant literature to inform the strategy, a number of research gaps were identified. This is not an exhaustive list, but instead provides examples of topics where new or further research is needed to inform future policies and interventions.

- The relative effect of different elements of product packaging such as use of colour, pictures, warnings and branding on purchase and consumption.
- Further research into effective approaches to support physical activity in the workplace.
- Digital marketing innovation emerging food marketing techniques.
- The impact of price reduction strategies on purchasing of unhealthy products.
- How to reduce obesity stigma in all settings.
- Effectiveness and take-up of weight management support and interventions for families.
- Impact of regular monitoring of weight in healthcare settings on motivation of patients and healthcare professionals.
- An assessment of the latest developments in treatment options and their role in weight management services.
- Effective approaches to maintain weight loss.
- Effectiveness of new commercial self-management services.
- To ensure conclusions from research offer the best opportunity to support progress in as broader range of the population as possible, while also guarding against unintended negative consequences, all future research, (whether focused on treatment or prevention) should include the mental as well as physical health aspects of obesity and disordered eating.



References

- 1. C. Whitty 2021 'What can we do about rising obesity?' (Gresham College lecture, 24 March) https://www.gresham.ac.uk/lectures-and-events/rising-obesity
- 2. PHE 2020 Excess Weight and Covid 19: Insights from New Evidence https://www.gov.uk/government/publications/excess-weight-and-covid-19-insights-from-new-evidence
- 3. D.R. Theis and M. White 2021 'Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992–2020' *The Milbank Quarterly* 99(1): 126–70 https://doi.org/10.1111/1468-0009.12498
- 4. DHSC 2021 'New body to tackle health disparities will launch 1 October, co-headed by new Deputy Chief Medical Officer' (3 September) https://www.gov.uk/government/news/new-body-to-tackle-health-disparities-will-launch-1-october-co-headed-by-new-dcmo--2
- 5. D.R. Theis and M. White 2021 'Is obesity policy in England fit for purpose? Analysis of government strategies and policies, 1992–2020' *The Milbank Quarterly* 99(1) 126–70 https://doi.org/10.1111/1468-0009.12498
- 6. IFG 2016 Making Policy Stick: Tackling Long-term Challenges in Government https://www.instituteforgovernment.org.uk/sites/default/files/publications/5225%20IFG%20-%20Making%20Policy%20Stick%20WEB.pdf
- 7. National Audit Office 2020 Childhood Obesity https://www.nao.org.uk/wp-content/uploads/2020/09/childhood-obesity.pdf
- 8. IPA 2014 *Project Routemap Setting Up Projects for Success* https://www.gov.uk/government/publications/improving-infrastructure-delivery-project-initiation-routemap
- 9. UKCRC 2020 *UK Health Research Analysis 2018* https://hrcsonline.net/wp-content/uploads/2020/01/UK-Health-Research-Analysis-2018-for-web-v1-28Jan2020.pdf
- 10. T. Lang and M. Heasman 2019 Food Wars (Routledge) and Defra 2020 'Food statistics in your pocket: food chain' https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-food-chain
- 11. R.G. Eccles, I. Ioannou and G. Serafeim 2014 'The impact of corporate sustainability on organizational processes and performance' *Manage Sci* 60: 2835–57 https://doi.org/10.1287/mnsc.2014.1984
- 12. Food Navigator 2019 "Level playing field needed to combat obesity": Greggs CEO' (13 May) https://www.foodnavigator.com/Article/2019/05/13/ Level-playing-field-needed-to-combat-obesity-Greggs-CEO
- 13. World Health Organization 2016 'Framework for Engagement with Non State Actors' (FENSA) https://www.who.int/about/partnerships/non-state-actors
- 14. PHE 2019 'Principles for engaging with industry stakeholders' https://www.gov.uk/government/publications/principles-for-engaging-with-industry-stakeholders
- 15. WHO 2021 'Obesity and overweight' (factsheet) https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

Acknowledgements

OHA would like to thank the following people, who provided substantial time and advice to help shape the strategy: Stephen Bevan, Emma Boyland, Maria Bryant, Jessica Catchpole, Ben Chiu, Rebecca Elliott, Andy Glyde, Katharine Jenner, Gethin Jones, Matt Keeble, Denise McAnena, Kath Roberts, Jonathan Roden, Jenny Rosborough, Christina Sabbagh, Vicky Sibson, Alfred Slade, Dr Vanessa Snowden-Carr and Lorraine Tulloch.

The academic team (Linda Bauld and Lauren Carters-White) were assisted by a number of University of Edinburgh students in conducting literature reviews and contributing to the report including Dudzai Mureyi, Cecilia Prieto Bravo, Hayley Dunlop, Chris Tracey, Vishwani Chauhan, Shona Simmons, Thulani Ashcroft, Xinyi Ng, Sinead Plant, Katarina Jackson, Matthew Northcote, Alexandra Huber, Zhongyu Lang, Prerna Krishnan, Jane Gordon, Shariva Phanse and Megan Jane Grace. We are also grateful to Kate Massie for her administrative support.

Strategy development process

For the strategy, a series of rapid evidence reviews were conducted by a team at the University of Edinburgh as well as the commissioning of expert papers. The rapid reviews and expert papers were conducted over the course of 2020 and 2021 and sought to narratively synthesise the most recent academic evidence surrounding the wide range of areas discussed in the strategy.

For the rapid reviews, a scoping review approach¹ was employed. The scoping review is useful for clarifying complex concepts, as well as refining recommendations. It allows for a range of study designs to be incorporated into the review, including both academic and grey literature, as well as addressing questions beyond those related to intervention effectiveness. A six-stage approach was taken to rapidly review the literature:

- 1. Identify the research questions
- 2. Identify relevant studies
- 3. Study selection

- **4.** Chart the data
- 5. Collate, synthesise and report results

For the expert papers, authors with knowledge of the evidence and policy environment were briefed to produce a summary paper of the evidence, existing policies, barriers to action and potential recommendations. Authors were identified via the OHA and the working group's networks.

Step 6, consultation, consisted of a series of consensus-building expert workshops and meetings, whereby experts across fields related to healthy weight met to discuss the evidence and develop a series of recommendations. This consultation process occurred over 2019-2021, resulting in the recommendations and Strategy presented here.

Insight work

- **Lived experience panel:** Two discussion meetings were held with people from across the UK who identified themselves as living with obesity.
- **Youth panel:** One discussion meeting was held with six members of BiteBack2030's youth panel. Participants were aged 15-24 from across the UK.
- **Insight interviews:** 16 in-depth interviews were conducted with people aged 18–64. Participants were matched to be broadly representative of the UK population. Interviews were conducted by Breathe Research.

D. Levac et al. 2010. 'Scoping studies: advancing the methodology' Implementation Science 5(1): https://doi.org/10.1186/1748-5908-5-69; H.
 Arksey and L. O'Malley. 2005. 'Scoping studies: towards a methodological framework' International Journal of Social Research Methodology 8(1): https://doi.org/10.1080/1364557032000119616

www.obesityhealthalliance.org.uk info@obesityhealthalliance.org.uk

