

## **Executive Summary**

This submission to the House of Lords Select Committee on Food, Diet, and Obesity addresses the complex interplay between diet, obesity, and public health in England. It highlights key trends in food consumption, the drivers of obesity across different demographics, and the multifaceted impacts of obesity on health. The document outlines the influence of prenatal and postnatal nutrition, defines ultra-processed and high-fat, sugar, salt foods, and discusses consumer recognition of these products through labelling. Additionally, it explores the economic aspects of food availability and the influential role of the food and drink industry in shaping dietary trends and public policy. International lessons on combating diet-related obesity and the effectiveness of government policies in tackling obesity are reviewed to propose integrated and sustainable approaches for future policy development.

## **Introduction to Think Through Nutrition (TTN)**

Think Through Nutrition (TTN) is the UK's leading voice on the link between nutrition, brain health and behaviour. Grounded in four decades of evidence-based research, our world-class and global team of experts leads ground-breaking work in this field.

Our belief is that nourished minds and bodies illuminate brighter futures for all. Our mission is to empower everyone, including society's most vulnerable, through the right nutrition.

To achieve this, we focus on three key pillars to inform, enable, and transform food choices:

- Advancing research
- Advocating for policy change
- Delivering accessible nutritional programmes

Our work has positioned us uniquely to offer insights into the systemic dietary challenges facing the UK today.

## **Reason for submitting evidence**

We are submitting evidence to the House of Lords Select Committee on Food, Diet, and Obesity because we believe that our extensive expertise and research findings can significantly contribute to shaping effective policies aimed at tackling the obesity crisis. Our work directly aligns with the Committee's objectives to understand the role of ultra-processed foods and foods high in fats, sugars, and salts (HFSS) in health outcomes. Furthermore, we aim to highlight the often-overlooked psychological and behavioural dimensions of dietary health, advocating for comprehensive approaches that include mental health considerations in the public health agenda.

We are keen to support the Committee's work by providing evidence-based recommendations that not only address the physical aspects of obesity but also encompass the psychological impacts of dietary choices, thus fostering a holistic approach to public health and nutritional policy. Our goal is to assist the Committee in making informed, evidence-based recommendations that will lead to healthier dietary environments and improved public health outcomes across the UK.

## **Summary of Answers:**

Recent trends in the UK and globally show a marked increase in the consumption of ultra-processed foods (UPFs) and foods high in fats, sugars, and salts (HFSS), which are closely linked to rising obesity rates. Concurrently, food insecurity and limited access to nutritious foods are exacerbating diet-related health disparities, particularly among socio-economically disadvantaged groups. These trends underscore the urgent need for comprehensive public health strategies aimed at reducing the intake of harmful foods and increasing the availability of nutritious alternatives.

The obesity epidemic is further fuelled by an 'obesogenic' environment characterised by the easy availability of high-calorie foods and limited opportunities for physical activity. Economic challenges often compel poorer dietary choices, with less expensive options

typically being calorie-dense and nutrient-poor, disproportionately affecting lower socio-economic groups. Additionally, lifestyle shifts towards increased screen time and reduced physical activity significantly contribute to rising obesity levels. These factors are further complicated by variables such as age, gender, ethnicity, and geographical and educational disparities, necessitating tailored public health interventions to effectively tackle these complex and multifactorial issues.

Obesity significantly heightens the risk of chronic diseases such as diabetes, cardiovascular diseases, and certain cancers. In children, obesity not only leads to immediate health problems like high blood pressure and type 2 diabetes but also affects psychological well-being, contributing to depression and anxiety. These early health issues often extend into adulthood, highlighting the critical need for early intervention strategies to prevent long-term adverse health outcomes.

While the definitions of UPFs and HFSS foods facilitate public health messaging, they sometimes simplify the complexities of food processing and nutritional content. However, these categories remain effective in guiding consumer choices and shaping public health policies, with labelling systems like the UK's Front of Pack Nutritional Labelling playing a crucial role despite their voluntary nature.

The evidence calls for a dynamic and integrated approach to public health that addresses both the dietary causes of obesity and its broader socio-economic determinants. Implementing effective policy measures, such as improving food label transparency, taxing unhealthy foods, and subsidizing healthier options, is essential for realigning dietary habits with health objectives. A comprehensive strategy that includes educational campaigns, regulatory reforms, and community-based initiatives is vital for making significant progress in mitigating the obesity crisis and enhancing overall public health.

## **1. Key trends in food, diet and obesity, and the evidential base for identifying these trends.**

It's clear that certain dietary patterns have been increasingly linked to health outcomes both in the UK and globally. A notable trend is the rising consumption of ultra-processed foods (UPFs), which has been robustly associated with increased intake of free sugars and higher obesity rates. This relationship is underscored by research documented in the *British Journal of Nutrition*, which tracked dietary shifts over an 11-year period, revealing how these foods have become more prevalent and problematic (Adams & White, 2015).

Additionally, there's a global surge in the consumption of foods high in fats, sugars, and salts (HFSS). These dietary habits have been tied to the growing prevalence of obesity across various populations, a trend elaborated upon in John Kearney's analysis in "Food consumption trends and drivers". Kearney highlights the socio-economic and cultural dynamics propelling these dietary changes and their contribution to the obesity epidemic.

The issue of diet inequalities and its impact on obesity is further explored by Lang & Rayner (2020) who showed how food insecurity and the accessibility of nutritious foods are driving diet-related health disparities, particularly in socio-economically disadvantaged groups.

These evidential insights collectively point to the urgent need for comprehensive public health strategies that not only aim to reduce the intake of UPFs and HFSS foods but also address broader socio-economic determinants of diet. Effective interventions must enhance access to nutritious foods and promote healthier eating habits across all

sections of society, thereby realigning dietary patterns with health goals and mitigating the obesity crisis. The convergence of data from these studies highlights the complex and multifaceted nature of diet-related issues, underscoring the necessity for integrated, multi-pronged approaches to tackle them effectively.

**Conclusion:** Increasing consumption of ultra-processed foods and foods high in fat, sugar, and salt is linked to rising obesity rates. Disparities in food access emphasize the need for strategies that enhance access to nutritious foods across all socioeconomic groups. Addressing these dietary patterns through public health initiatives is crucial for realigning national health outcomes with dietary guidelines.

**Recommendation:** Implement comprehensive public health strategies that focus on both reducing intake of harmful foods and addressing broader socioeconomic determinants of diet.

## **2. The primary drivers of obesity both amongst the general population and amongst distinct population and demographic groups.**

The King's Fund report on "Tackling obesity in the NHS" delineates key factors fuelling the obesity crisis:

- **Environmental:** The pervasive 'obesogenic' environment, with its ready supply of high-calorie options and lack of physical activity, plays a pivotal role in obesity's rise.
- **Socio-economic influences:** Financial constraints lead to diets rich in calories but poor in nutrients, disproportionately affecting those from lower socio-economic backgrounds.
- **Lifestyle shifts:** Modern sedentary lifestyles, marked by increased screen time and decreased physical activity, are significant contributors to obesity.
- **Dietary habits:** The trend towards regular consumption of fast food, UPFs, and HFSS foods, spurred on by aggressive marketing, significantly influences the obesity trend.

For distinct demographic groups, additional factors such as age-related lifestyle changes, gender-specific issues, genetic and cultural factors in different ethnic groups, regional disparities, and varying levels of education further compound the obesity challenge.

The report stresses the need for a comprehensive strategy encompassing policy changes, healthcare interventions, and community and individual actions. Tailored to meet the distinct drivers in various groups, such a strategy is essential for an effective response to obesity, aiming not just to reduce rates but to enhance overall population health and wellbeing. Embracing this multifactorial and nuanced approach is critical in the battle against obesity.

**Conclusion:** Obesity is driven by an obesogenic environment, socioeconomic factors, lifestyle changes, and dietary habits. Distinct demographic groups face unique challenges that require tailored public health interventions.

**Recommendation:** Develop and enforce a multifaceted strategy that includes policy changes, healthcare interventions, and targeted community and individual actions.

## **3. The impacts of obesity on health, including on children and adolescent health outcomes.**

The World Health Organisation (WHO) identifies obesity as a major risk factor for a number of chronic diseases, including diabetes, cardiovascular diseases, and certain cancers. The escalation of obesity-related noncommunicable diseases (NCDs), are more likely to persist into adulthood from childhood if early-life obesity is not effectively managed.

#### **Obesity in children:**

- **Immediate health outcomes:** children and adolescents who are obese are at an increased risk for a variety of health problems. These immediate health outcomes include high blood pressure, type 2 diabetes, and metabolic syndrome. Furthermore, obese children are more likely to suffer from sleep apnoea, asthma, and non-alcoholic fatty liver disease (NAFLD) (<https://www.ncbi.nlm.nih.gov/books/NBK570613/>).
- **Psychological impact:** Research shows children and adolescents with obesity often experience psychological effects such as depression, anxiety, and low self-esteem, and are subject to bullying and stigmatisation due to their weight, which can have long-lasting effects on their emotional well-being (<https://www.nature.com/articles/s41572-023-00435-4>).
- **Burden of disease:** Children and adolescents with obesity have a higher chance of becoming obese adults. The WHO notes that obesity in childhood sets the stage for the early onset of NCDs in adulthood, compounding the burden of disease and impacting the quality of life (<https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>)

#### **Conclusion**

The impacts of obesity on health, particularly in children and adolescents, are profound and multifaceted, affecting physical, psychological, and social dimensions of health. Early intervention is crucial to prevent the escalation of obesity-related health outcomes and to improve the quality and expectancy of life. The evidence from these sources underlines the need for comprehensive strategies to combat childhood obesity, including lifestyle modifications, public health policies, and clinical interventions.

**Recommendation:** Expand public health policies to include psychological support and anti-bullying campaigns that address the mental health aspects of obesity.

#### **4. The influence of pre- and post-natal nutrition on the risk of subsequent obesity, and the specific influences on the diet of children and adolescents that contribute to the risk of becoming obese.**

Epidemiological research consistently demonstrates the significant role that pre- and post-natal nutrition plays in influencing the risk of obesity in later life. Studies indicate that inadequate nutrition during these critical periods can predispose individuals to obesity and related diseases as they grow. For instance, a deficiency in essential nutrients during pregnancy, such as polyunsaturated fatty acids, protein, and certain vitamins, has been linked to an increased risk of developing metabolic syndromes in the offspring (Source: PMC3855628).

Further, the timing and introduction of certain food types in an infant's diet can have a lasting impact. For example, early introduction of solid foods has been associated with an elevated risk of obesity in childhood (Source: PMC9739272). This suggests a potential window where dietary interventions could mitigate long-term obesity risk.

#### **Dietary influences on children/adolescents**

The dietary patterns established in early childhood can significantly influence the dietary habits observed in later childhood and adolescence. Consumption of UPF and high-

caloric foods tends to start young and, once established, can be difficult to alter. These dietary habits are further exacerbated by external factors such as advertising, availability of unhealthy food options, and social norms. Addressing these issues effectively requires a comprehensive approach that includes educating parents and caregivers about optimal feeding practices and the importance of nutrient-rich, unprocessed foods. Policy interventions could also play a crucial role in shaping the food environment to support healthier choices, such as through regulations on marketing unhealthy foods to children and improving food labels to make healthier choices more evident and accessible.

Evidence shows the importance of focusing on nutrition of both mothers during pregnancy and children in early years as part of a broader strategy to combat obesity. Policymakers should consider both direct interventions in diet and broader regulatory measures to support healthy nutritional practices from pre-natal stages through to adolescence.

**Conclusion:** Nutritional choices during pregnancy and early childhood have lasting impacts on obesity risk. Policies supporting nutritional education for parents and regulating infant food marketing are critical.

**Recommendation:** Implement educational programmes for parents on prenatal and infant nutrition and regulate marketing practices to support healthy dietary habits from a young age.

## **5. The definition of a) ultra-processed food (UPF) and b) foods high in fat, sugar and salt (HFSS) and their usefulness as terminologies for describing and assessing such products.**

While useful for public health messaging, the current definitions of UPF and HFSS can oversimplify complex nutritional realities.

**Ultra-Processed Foods (UPF):** Defined by the NOVA classification system, ultra-processed foods (UPFs) include items that are substantially altered through industrial processing, often with the addition of artificial colours, flavours, preservatives, and other additives. These typically include products like soft drinks, packaged snacks, and reconstituted meat products. The utility of the UPF terminology is its capacity to highlight foods that are generally nutrient-poor and energy-dense, commonly linked to negative health outcomes such as obesity, cardiovascular diseases, and diabetes. This classification has been crucial for informing public health policies and consumer choices, emphasising the importance of dietary quality over convenience (Monteiro et al., 2018).

**Foods High in Fat, Sugar, and Salt (HFSS):** HFSS foods are characterised by their high content of detrimental nutrients: fats, sugars, and salts. This category usually includes fast foods, baked goods, and sweets. The terminology is employed significantly in regulatory frameworks to guide public health interventions, particularly concerning advertising restrictions and placement of these products around vulnerable populations, such as children. HFSS classifications help in crafting dietary guidelines and are instrumental in initiatives aimed at reducing the intake of these high-risk nutrients.

### **Challenges**

Despite its widespread use, the NOVA system has been criticised for potentially oversimplifying the complexities of food processing.

- **Oversimplification:** The classification might not account for the nutritional content of the foods, potentially misleading consumers by categorising nutritionally enhanced foods as harmful solely based on their processing level.

- **Ambiguity and inconsistency:** The global applicability of NOVA is hindered by its vague definitions, leading to inconsistent food categorisations across different jurisdictions and studies, which can confuse policy implementation and consumer understanding.
- **Consumer and industry impact:** Labelling a broad array of commercially prepared foods as ultra-processed may deter consumers from products that are convenient and beneficial in certain contexts and could prompt superficial modifications by manufacturers that do not genuinely improve food quality.
- **Need for integrated approaches:** There is a growing call for models that combine processing level with nutritional quality, to create guidelines that better reflect the complexities of food healthfulness and support more precise public health recommendations.

Both UPF and HFSS terminologies serve crucial roles in public health discourse, enabling focused dietary guidelines and consumer education. However, application of these terms, particularly the NOVA scale, should be continuously refined and supported by comprehensive research to ensure they accurately reflect and guide improvements in public dietary habits.

**Conclusion:** While useful for public health messaging, the current definitions of UPF and HFSS can oversimplify complex nutritional realities. A combined model of processing level and nutritional quality could provide a clearer framework for consumer guidance and policy development.

**Recommendation:** Refine these terminologies through ongoing research, policy evaluation and adapt public health messages to incorporate both food processing and nutritional quality and to maximise their impact on public health.

## 6. How consumers can recognise UPF and HFSS foods, including the role of labelling, packaging and advertising.

The UK employs different types of nutritional labelling systems: the Back of Pack Nutritional Labelling (BOPNL), which provides detailed nutritional analysis, and the Front of Pack Nutritional Labelling (FOPNL) introduced in 2013 by the Department of Health and Social Care. The FOPNL features a Red, Amber, Green (RAG) rating system, offering consumers a quick and easily understandable method to assess the nutritional value of food products. Research by the Department of Health and Social Care in 2020 indicated that 80% of participants use FOPNL, highlighting its effectiveness in conveying nutritional information. However, it is important to note that the use of FOPNL is voluntary among manufacturers, limiting its overall impact.

The identification and labelling of UPFs are more complex due to the variable definitions of processing levels that foods undergo. The NOVA classification system is one approach that categorises foods based on their level of processing, but it lacks the ability to provide quantifiable nutrient data, which is crucial for direct consumer comparisons and informed choices. Research by Popkin et al. (2024) suggests that evolving this system to integrate UPF classification with HFSS metrics could lead to a more effective labelling strategy, akin to the RAG system but specifically tailored for UPFs.

### Recommendations for enhanced labelling systems

- Given the proven success of the FOPNL system, there is a strong case for making such labelling mandatory and extending it to include specific indicators for UPFs. Timmins and O'Hare (2021) advocate for mandatory front-of-pack labels as part of a broader strategy to reduce the consumption of harmful foods, especially among

children. This approach could align with additional regulatory measures, such as the ones seen in Latin American countries like Brazil and Chile, where stringent restrictions on marketing, particularly marketing aimed at children involving cartoons and other appealing strategies, have been implemented.

**Restricting advertising and promotions:**

- Further regulatory measures should include the restriction of advertising and promotional strategies that target vulnerable populations, especially children. The research underscores the influence of marketing on children's food choices and the subsequent health outcomes associated with UPF consumption. This aspect of regulation could significantly diminish the exposure of children to high-risk food products, thus contributing to better health outcomes.

Enhancing consumer recognition of UPFs and HFSS foods through improved labelling, packaging, and advertising regulations is a critical step in addressing public health concerns associated with these foods. Mandatory adoption of an extended FOPNL system that includes specific markers for UPFs, combined with stricter advertising restrictions, can empower consumers to make healthier food choices and reduce the public health burden of diet-related diseases. These measures should be supported by ongoing research and adapted based on their effectiveness in real-world settings, ensuring they meet the evolving needs of the public health landscape.

**Conclusion:** Effective labelling, such as a mandatory front-of-pack system, can help consumers identify unhealthy foods and make informed choices. Restrictions on marketing to vulnerable populations, especially children, are also crucial.

**Recommendation:** Mandate comprehensive labelling that includes UPF indicators and implement strict advertising restrictions to protect public health.

**7. The cost and availability of a) UPF and b) HFSS foods and their impact on health outcomes.**

**Cost and availability of UPFs and HFSS foods**

UPFs and HFSS foods are typically more affordable than minimally processed foods (MPFs) due to the lower cost of their artificial, mass-produced ingredients and the economies of scale in processing. These ingredients not only reduce production costs but also extend the shelf life of products, ensuring their availability and reducing retail prices. This pricing structure makes UPFs more accessible, particularly to those in lower income brackets, who might rely on these cheaper, more accessible food options. The constant availability and lower prices drive up consumption rates of these less healthy options.

**Health impact**

According to the umbrella review by Lane et al. (2024), there is sufficient evidence linking greater exposure to UPFs with severe health risks including premature death and adverse cardiometabolic and mental health outcomes. These health issues contribute significantly to the burden on healthcare resources and impact the quality of life for individuals consuming these foods.

**Economic implications on diet choices**

The Food Foundation (2023) highlights the economic strain of following government recommendations for a healthy diet. The most economically disadvantaged groups would need to spend a disproportionate amount of their disposable income (50%) to meet these dietary guidelines, compared to just 11% for the least deprived. This

economic disparity underscores the role pricing plays in diet choices and the potential for policy interventions such as pricing adjustments.

### **Policy implications**

Vandevijvere et al. (2020) suggest that reducing the cost of MPFs and potentially increasing the cost of UPFs could help to encourage healthier eating habits. By adjusting the economic incentives—making healthier options more financially accessible and less healthy options less so—the government could influence public health outcomes positively.

### **Conclusion**

The cost and availability of UPFs and HFSS foods are critical in shaping public health outcomes. Making MPFs more economically accessible and perhaps increasing the costs associated with UPFs could serve as a viable policy tool to mitigate the consumption of unhealthy foods. This strategy, alongside improved education on the health impacts of food choices and better labelling practices, could help reduce the prevalence of diet-related health issues. This evidence-based approach aligns with the need for policies that address both economic and health factors in the diet of the population.

**Recommendation:** Adjust economic incentives to make nutritious foods financially accessible and consider implementing taxes on unhealthy foods to deter consumption.

## **8. The role of the food and drink industry in driving food and diet trends and on the policymaking process.**

The food and drink industry has a significant impact on consumer preferences and dietary patterns through strategic marketing, product formulation, and distribution practices. Companies often invest heavily in marketing high-margin products that are generally high in sugars, fats, and salts—commonly known as HFSS foods. By promoting these products through appealing advertisements, especially those targeted at children and vulnerable populations, the industry shapes dietary habits from a young age. For example, the use of characters and mascots in marketing campaigns effectively attracts young consumers, fostering brand loyalty and influencing dietary preferences that can last a lifetime.

### **Policymaking influence**

The influence of the food and drink industry extends into policymaking, where it can often be detrimental to public health initiatives. Companies in this sector employ various strategies to sway policy decisions to favour business interests rather than public health goals. This influence is exerted through lobbying, funding research that supports industry perspectives, and participating in public health campaigns that can serve to deflect responsibility from corporate practices to individual choices.

### **Lobbying against regulation**

Food companies actively lobby against regulations that could impede their profits, such as taxes on sugary drinks and fats, and stricter food labelling laws. This lobbying effort often prevents the implementation of policies that could help mitigate the health risks associated with processed foods.

### **Manipulation of scientific research**

The industry also influences public opinion and policy through the sponsorship of scientific research that downplays the adverse health effects of their products. This

manipulation of science helps maintain a less regulated environment, enabling the continued promotion of unhealthy food products.

### **Voluntary codes of practice**

By adopting voluntary codes of practice, the industry avoids stricter government regulations. These self-regulatory measures are often criticised for being ineffective, as they are designed to serve the industry's interests rather than protect public health.

The 2020 BMJ article headed by Martin White (2020) highlights the extensive economic, health, and social costs generated by the commercial food system. These include:

- **Environmental costs:** The intensive agricultural practices needed to sustain high levels of food production exacerbate environmental degradation.
- **Social costs:** The reliance on low-wage economies contributes to social inequalities and poor health outcomes in those regions.
- **Health costs:** The widespread availability of cheap, processed foods contributes to diet-related health issues globally.
- **The global food system:** characterised by its focus on maximising short-term profits, often at the expense of health and sustainability, presents significant challenges:
- **Regulatory gaps:** There is a critical need for more stringent regulations that can mitigate the influence of the food industry on public health policy. This includes stronger laws on advertising, especially to children, and mandates for clearer nutritional labelling.
- **Public health advocacy:** Health professionals and advocacy groups must push for greater transparency in policy-making processes and seek to expose and counter the industry's influence.

### **Conclusion**

The food and drink industry's role in shaping diet trends and influencing policymaking is profound and often detrimental to public health goals. To combat this, governments and public health organisations need to implement and enforce policies that limit industry influence, promote transparency, and prioritise long-term health and sustainability over immediate industry profits. Such measures are essential to realign the commercial food system with public health, environmental sustainability, and societal well-being.

**Recommendation:** Strengthen regulations to limit industry influence on public policy and promote transparency and accountability in food marketing and labelling.

### **9. Lessons learned from international policy and practice, and from the devolved administrations, on diet-related obesity prevention.**

- **Sugar taxes:** Mexico, South Africa, the UK have successfully implemented taxes on sugary drinks, which studies have shown can decrease consumption.
- **Nutritional labelling:** France's Nutri-Score system is indeed a real example of how simplified nutritional information can assist consumers in making healthier food choices. This system has been positively received in various European countries and is supported by research showing its potential to influence consumer decisions towards healthier diets.
- **Advertising restrictions:** Chile has implemented comprehensive advertising restrictions that limit the marketing of HFSS foods to children. These restrictions include banning the use of cartoons and other child-friendly characters in advertisements. This measure has been observed to impact the purchasing habits of families, making it a relevant example.

- **Scotland's alcohol pricing:** Scotland's minimum unit pricing for alcohol aims primarily at reducing excessive alcohol consumption and its associated harms. While this policy indirectly affects calorie intake from alcoholic beverages, it's primarily a measure against alcohol misuse. The analogy to HFSS foods in terms of using pricing strategies to influence consumption is logically sound, though direct evidence of its effectiveness on food is more speculative.
- **Wales' school programmes:** Wales has indeed focused on integrating health education within schools, which includes promoting physical activity and better nutrition among children. Such programmes are part of broader public health strategies to instil healthier habits early.

**Conclusion:** Global experiences underscore the effectiveness of sugar taxes, nutritional labelling, and advertising restrictions in reducing diet-related health issues.

**Recommendation:** Apply international best practices to UK policy making, including adopting proven strategies such as taxes and comprehensive labelling schemes.

## **10. The effectiveness of Government planning and policymaking processes in relation to food and drink policy and tackling obesity.**

### **Sugar tax**

Introduced in 2018, the UK's Soft Drinks Industry Levy (commonly known as the sugar tax) targets sugary drinks by imposing a tax on manufacturers. This measure has proven to be effective in reducing sugar consumption from soft drinks. Manufacturers have reformulated their products to lower sugar content, and there has been a reported reduction in the purchase of taxed beverages.

### **Calorie labelling**

The UK government has also mandated calorie labelling in large restaurants, cafes, and takeaways with more than 250 employees. This policy is intended to make calorie information readily available at the point of purchase, helping consumers make more informed and healthier choices.

### **Advertising restrictions**

Policies to restrict HFSS (high in fat, sugar, and salt) food advertising during children's TV programming and other forms of digital media aimed at children are part of the broader strategy to reduce the allure of unhealthy food options to the younger demographic. The government is exploring extending these restrictions to reduce overall exposure to these marketing efforts.

### **Childhood obesity plan**

The plan includes a broad range of actions intended to reduce childhood obesity, including improving school food standards and promoting physical activity. The ambition is to halve childhood obesity by 2030, demonstrating a long-term commitment to tackling this issue.

### **National food strategy**

This strategy represents the first independent review of the UK's food system in 75 years and aims to ensure that the food system works for the environment, health, and sustainable growth. It includes proposals for legislative changes and funding models to promote healthy diets and reduce obesity.

While these policies are steps in the right direction, their overall effectiveness in significantly reducing obesity rates across the population can be uneven and faces several challenges:

- **Compliance and enforcement:** For policies like calorie labelling, the challenge often lies in ensuring compliance across all regions and sectors, including small and medium-sized enterprises which are not covered by the current regulations.
- **Market response:** The response of the food and beverage industry to reformulate products can vary, and while many companies have reduced sugar levels, others may find ways around the regulations without improving the nutritional quality of their products.
- **Public reception:** Public health campaigns and policies can only be effective if they lead to behaviour change. The success of these initiatives often depends on public reception and the willingness of individuals to adjust their eating habits. Notably, evidence suggests that calorie counting on menus hasn't consistently shown to be effective in changing consumer choices or reducing calorie intake.
- **Holistic approach needed:** Obesity is a multifactorial issue, influenced by economic, social, and environmental factors. Addressing it effectively requires more than just isolated policy measures; it needs a holistic approach that includes education, access to healthy foods, and changes in the built environment to promote physical activity.

**Conclusion:** The UK government has implemented various promising policies aimed at reducing obesity and improving diet quality among its population. These initiatives show potential, but their success requires consistent enforcement, industry cooperation, and cultural shifts in consumer behaviour to ensure long-term effectiveness.

**Recommendation:** Enhance policy monitoring and introduce adaptive measures that reflect real-world impacts and public health developments. Additionally, tackling obesity effectively also calls for addressing broader socioeconomic determinants of health.

## **11. The impact of recent policy tools and legislative measures intended to prevent obesity.**

Recent policy tools and legislative measures in the UK, such as the Soft Drinks Industry Levy (sugar tax) and calorie labelling requirements, have made some progress in addressing obesity. The sugar tax has successfully reduced the consumption of sugary drinks, as manufacturers lower sugar content to avoid the levy. However, the effectiveness of calorie labelling in changing consumer behaviour and reducing obesity rates has been less clear, with mixed results on its impact on consumer choices. Despite these efforts, obesity rates continue to rise, highlighting the need for a more comprehensive and multifaceted approach to effectively tackle this complex public health challenge.

**Conclusion:** Existing measures like the sugar tax have had some success, but the ongoing rise in obesity rates calls for a more comprehensive approach that addresses the multifaceted nature of obesity.

**Recommendation:** Develop a comprehensive obesity strategy that integrates economic, social, and environmental factors.

## **12. Policy tools that could prove effective in preventing obesity amongst the general population, including those focussed on the role of the food and drink industry in tackling obesity.**

- **Extended sugar and fat taxes:** While these taxes can push manufacturers to create healthier products, they also risk disproportionately impacting lower-income consumers who spend a larger portion of their income on food. To

mitigate this, revenue from these taxes could be used to subsidise healthier food options or fund public health programs specifically aimed at disadvantaged communities.

- **Comprehensive advertising bans:** Limiting exposure to unhealthy food advertising across all media helps protect all consumers, but particularly children and those in lower-income areas who are often targeted more aggressively by unhealthy food marketing.
- **Mandatory nutritional labelling:** Clear labelling helps all consumers make informed choices, but educational campaigns should accompany these labels to reach and effectively inform lower literacy and lower-income groups who might not otherwise benefit from such information.
- **Subsidies for healthy foods:** Directly targeting subsidies to reduce the cost of healthy foods can particularly benefit those in poverty, making nutritious choices more accessible and affordable and addressing food deserts in impoverished areas.
- **Industry accountability measures:** Strong regulations can drive the food industry to produce healthier foods, which benefits the entire population. However, specific incentives can be designed to encourage companies to distribute healthier options in underprivileged areas, tackling both obesity and nutrition inequality.

**Conclusion:** Policy tools that reduce exposure to unhealthy foods and promote healthier options can help mitigate obesity. These should be accompanied by subsidies for healthy foods and educational campaigns to ensure they reach all segments of the population.

**Recommendation:** Expand subsidies for healthy foods and enforce comprehensive nutritional education and labelling to guide consumer choices effectively.

## References

Adams, J. and White, M. (2015) 'Characterisation of UK diets according to degree of food processing and associations with socio-demographics and obesity: Cross-sectional analysis of UK National Diet and Nutrition Survey (2008–12)', *International Journal of Behavioral Nutrition and Physical Activity*, 12(1). doi:10.1186/s12966-015-0317-y.

Kearney, J. (2010) 'Food consumption trends and drivers', *Philosophical Transactions of the Royal Society B: Biological Sciences*, 365(1554), pp. 2793–2807. doi:10.1098/rstb.2010.0149.

Lang, T. and Rayner, G. (2005) 'Obesity: A growing issue for European policy?', *Journal of European Social Policy*, 15(4), pp. 301–327. doi:10.1177/0958928705057263.

(2021) Tackling obesity: The role of the NHS in a whole-system approach | The King's Fund. Available at: <https://www.kingsfund.org.uk/insight-and-analysis/reports/tackling-obesity-nhs> (Accessed: 06 April 2024).

Rahman, M.H. (2018) 'Childhood obesity; effects and prevention', *Bangladesh Journal of Child Health*, 41(2), pp. 74–76. doi:10.3329/bjch.v41i2.36101.

Widhalm, K. (2022) 'Obesity in children/adolescents | editorial Chao', *Child and Adolescent Obesity*, 5(1), pp. 1–2. doi:10.1080/2574254x.2021.2019556.

Obesity and overweight (2024) World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> (Accessed: 06 April 2024).

Parlee, S.D. and MacDougald, O.A. (2014) 'Maternal nutrition and risk of obesity in offspring: The trojan horse of developmental plasticity', *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, 1842(3), pp. 495–506. doi:10.1016/j.bbadis.2013.07.007.

Mannino, A., Sarapis, K. and Moschonis, G. (2022) 'The effect of maternal overweight and obesity pre-pregnancy and during childhood in the development of obesity in children and adolescents: A systematic literature review', *Nutrients*, 14(23), p. 5125. doi:10.3390/nu14235125.

Monteiro, C.A. *et al.* (2017) 'The UN Decade of Nutrition, the Nova Food Classification and the trouble with ultra-processing', *Public Health Nutrition*, 21(1), pp. 5–17. doi:10.1017/s1368980017000234.

Chang, K., Khandpur, N., Neri, D., Touvier, M., Huybrechts, I., Millett, C. and Vamos, E. (2021) 'Association Between Childhood Consumption of Ultraprocessed Food and Adiposity Trajectories in the Avon Longitudinal Study of Parents and Children Birth Cohort', *JAMA Pediatrics*. 175(9), doi:10.1001/jamapediatrics.2021.1573.

Department of Health and social Care (2013) Final design of consistent nutritional labelling system given green light. Available at: <https://www.gov.uk/government/news/final-design-of-consistent-nutritional-labelling-system-given-green-light> (Accessed 29th March 2024)

Department of Health and social Care (2020) Building on the success of front-of-pack nutrition labelling in the UK: a public consultation. Available at: <https://assets.publishing.service.gov.uk/media/5f219839e90e071a5a92433a/front-of-pack-labelling-consultation-document-english.pdf> (Accessed 29th March 2024)

Popkin, B.M., Miles, D.R., Taillie, L.S. and Dunford, E. (2024) 'A policy approach to identifying food and beverage products that are ultra-processed and high in added salt, sugar and saturated fat in the United States: a cross-sectional analysis of packaged foods', *Lancet Reg Health Am.* 8(32), doi:10.1016/j.lana.2024.100713. PMID: 38495314; PMCID: PMC10943474.

Lane, M. M. *et al.* (2024) 'Ultra-processed food exposure and adverse health outcomes: umbrella review of epidemiological meta-analyses', *BMJ*, 384. Available at: <https://doi:10.1136/bmj-2023-077310>

The Food Foundation (2023) The Broken Plate 2023, The state of the Nation's food system Available at: <https://foodfoundation.org.uk/publication/broken-plate-2023>

Vandevijvere, S., Pedroni, C., De Ridder, K. and Castetbon, K. (2020) 'The Cost of Diets According to Their Caloric Share of Ultraprocessed and Minimally Processed Foods in Belgium', *Nutrients*, 12(9), Available at: <https://doi:10.3390/nu12092787>

White, M. *et al.* (2020) 'What role should the commercial food system play in promoting health through better diet?', *BMJ*, p. m545. doi:10.1136/bmj.m545.

