

Evidence to support the implementation of better regulation of digital marketing for foods and drinks high in fat, salt and sugar

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Cancer Research UK

Cancer Research UK is the world's largest independent cancer charity dedicated to saving lives through research. We support research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses. In 2017/2018, we spent £423 million on research institutes, hospitals and universities across the UK. We receive no funding from Government for our research.



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Foreword

Noncommunicable diseases (NCDs) such as cancer, diabetes, heart disease, and lung disease are responsible for two thirds of global mortality. Much of this disease burden is caused by preventable risk factors such as alcohol and tobacco use and overweight and obesity, which are widely prevalent across the world.

Taking a life-course perspective and tackling the major risk factors during childhood is a crucial approach to preventing or delaying the onset of NCDs. To do this, we must look at what in a child's environment is causing these risk factors to be so prevalent. In the case of overweight and obesity, exposure to marketing of foods and drinks high in fat, salt and sugar (HFSS) is known to negatively impact children's overall diet quality.

The World Health Organization (WHO) has called on member states to introduce comprehensive restrictions on HFSS marketing to children. Despite political commitment by governments across Europe, we still see evidence of widespread exposure to and impact of junk food marketing. WHO/Europe has shown that many of the existing policies and regulations surrounding the marketing of foods and drinks to children are insufficient, contain major loopholes and show limited success in reducing exposure.

This exposure and the associated impact on children's diets has been worsened by a changing marketing landscape and media habits, with digital media becoming increasingly common in children and young people's lives.

This is a critical time to act as public and government concern around online harms is gaining momentum. In 2018, WHO Regional Office for Europe introduced the CLICK framework for monitoring digital marketing of unhealthy products to children. Effective monitoring will enable us to better

understand children's marketing exposure and provide the foundation for regulatory action.

Now, we must move from the pan-European CLICK monitoring framework to set up monitoring systems in specific country contexts, and then focus attention beyond monitoring to look at fine-tuning and adapting regulatory systems themselves.

We are very pleased to see Cancer Research UK advocating for this important next step: to build on the CLICK monitoring framework to improve regulatory practice and ensure regulation is sufficient to protect children from all marketing — through both traditional and digital routes — of HFSS products.

The recommendations outlined in this report will improve systems to protect children and tackle the alarming rates of obesity and unhealthy diets. We are delighted and convinced that this experience will also benefit other Member States within the WHO European Region.



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Executive Summary

Overweight and obesity is the leading preventable cause of cancer in the UK after smoking ^[1]. It is linked to a number of health conditions, including 13 different types of cancer, causing over 22,000 cancer incidences annually (approx. 6% of all cancer cases) ^[1]. Reducing obesity levels therefore must be a key priority in improving public health and protecting future generations.

Research has consistently shown that advertising of high fat, salt, and sugar (HFSS) products influences dietary-related knowledge, attitudes, and consumption, especially amongst children and young people ^[2]. The rise of digital media has provided new opportunities for the food and drink industry to reach, influence, and interact with consumers. However, these audiences include children and young people, which has consequences. Protecting the vulnerable from exposure to HFSS advertising, wherever it appears, is vital.

As the UK Government considers how to restrict HFSS marketing and online harms, it is crucial to ensure that regulation reflects the unique digital environment to adequately protect children from the harms of marketing. This report investigates how digital marketing for HFSS food and drink is regulated in the UK and examines alternative methods of regulating online marketing. Based upon this evidence, we have produced a best practice checklist for government and regulators:

How can digital marketing be regulated to protect children?

Introduce regulation with clear definitions



Regulation should set out appropriate, objective and sufficiently wide-ranging definitions of digital marketing, using language which is compatible with the media and marketing industries.



Update definitions as media evolves

Regulation design should be regularly revisited to ensure it keeps up with marketing and media developments. Definitions that are not exclusive to specific digital media channels means that regulations can apply to new media.



Marketing required to meet 'minimum standards of design'

Minimum standards of design, which provide information about nutritional content, consuming a balanced diet, and combining diet with physical activity, can help to counter-balance the promotional messages in marketing.



Sufficiently monitor and enforce regulation

Effective regulatory design should be combined with robust independent monitoring and clear sanctions via formal processes, to ensure that producers comply with restrictions and to set precedents for future marketing activity.



Regularly evaluate the effects of regulation

Regulation should be regularly monitored to evaluate marketing exposure among young people and the association with knowledge, attitudes and behaviour.

Why are regulations needed online?

Our previous research has shown that digital marketing differs to traditional marketing: it can target specific audiences, co-opt users in creating content, and be virally spread ^[3, 4, 5]. A mixture of obvious and subtle marketing tactics means that young people can't always distinguish between marketing and organic content ^[6]. Regulations need to reflect this unique environment.

Findings

The UK's current regulatory system has several limitations

In the UK, digital marketing for HFSS food and drinks is self-regulated by the advertising industry and manufacturers. Their approach still allows young people to be exposed to marketing, with few meaningful sanctions for non-compliance. As digital media can be produced and shared in real time and in large volumes, the current retrospective disciplinary approach used is not efficient in controlling such marketing as campaigns are able to reach large audiences before a decision on compliance is made.

Digital marketing involves unique considerations for regulation

To create regulations that are strong and effective, challenges with age verification, content outside of brand-controlled spaces and from other countries, and the availability of data to monitor implementation must be considered. These challenges are not unique to HFSS content, and Government need to examine how best these questions can be answered.

Regulation of digital marketing of other products provides precedents for HFSS regulation

Due to a lack of examples of statutory regulation for HFSS food and drink, this review looks at two case studies of digital marketing regulations of alcohol, another fast-moving consumer good. Although alcohol and HFSS products are not directly comparable, there are key similarities in how both are marketed and regulated. Understanding good practice for regulating alcohol can help inform our understanding of HFSS regulation.

Examples are considered from Finland, who have specifically designed legislation to regulate digital marketing for alcohol, and France, who have updated parts of their alcohol marketing legislation to account for new media developments. Combined, they provide useful precedents on how regulation could be applied to HFSS food and drinks in the UK. Principles from these case studies were used to inform our digital marketing regulation checklist.

Policy Recommendations

The starting point of good regulatory practice would be for the UK Government to build on WHO Europe's framework for monitoring children's exposure to harmful marketing online, by ensuring digital advertising regulation is aligned with our best practice checklist.

Decisive policy action at a national level is key to achieving the UK Government's ambition of halving childhood obesity rates by 2030. The UK Government must introduce a comprehensive 9pm watershed for HFSS adverts across all forms of media, including digital and online, to reduce children's exposure.

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1 Introduction

Overweight and obesity is the second biggest preventable cause of cancer in the United Kingdom (UK). An estimated 28% of all 2–15-year olds are either overweight or obese in the UK $^{[7]}$, which has lasting lifetime effects. Children and adolescents who are obese are five times more likely to be so as adults $^{[8]}$. This is significant on an individual level, as obesity is linked to a number of psychosocial and health-related consequences including 13 types of cancer $^{[9]}$, and on an economic level, with an estimated annual cost of £6.1 billion to the NHS and a £27 billion wider societal cost $^{[7]}$. Reducing obesity levels must therefore be a key priority to improve public health, protect future generations and reduce the burden on the NHS.

Research has consistently shown that exposure to marketing of food and drink high in fat, salt, and sugar (HFSS) influences dietary-related knowledge, attitudes, and consumption, including among children and young people ^[2]. The rise of digital media has created a new 'marketing mix', within an already sophisticated network of marketing techniques, providing the food and drink industry with new ways to reach, influence, and interact with consumers. These include paid media (e.g. display adverts, banner adverts, video adverts), owned media (e.g. websites and social media content), and user-generated content (e.g. fan photos on social media) ^[6]. The audiences reached through these techniques include children, which has important health consequences. Children's rights to access information, enjoy freedom of assembly, and have a social life must be balanced with their right to be protected ^[10].

Protecting children from exposure to HFSS advertising, wherever it appears, is vital.

This report is the second part of a narrative review. The first part, 'Digital Feast: Navigating a digital marketing mix, and the impact on children and young people's diet and attitudes' [6], showed that using digital HFSS marketing, brands employ tactics which reach and appeal to children and young people across many platforms resulting in immersion in HFSS marketing, which in turn leads to reinforcement of brand recognition and positive attitudes towards brands. Exposure to digital HFSS marketing is associated with obesity-relevant outcomes such as increased consumption of HFSS products and pester power. Digital HFSS marketing is also difficult for both children and parents to recognise. These findings illustrated the need to update regulation.

The World Health Organization recently outlined the CLICK monitoring framework, a tool to estimate children's online exposure to digital marketing, laying the foundations for building incountry support for action ^[10]. This report addresses the fact that monitoring alone is insufficient, and governments must act to ensure they are protecting children's rights from the potential harms of digital media and marketing, as stated in the United Nations Convention on the Rights of the Child ^[11].

The UK Government's Obesity Plan recognised the need for further action to address the link between marketing and obesity in young people, including potentially revising regulation ^[12]. This report investigates how digital marketing for HFSS food and drink is regulated in the UK, and alternative methods of regulation based on international case studies.

1.1. Research aims

A structured narrative review was conducted. This is an established method used in academic research to review the design and reported effects of alcohol, tobacco, gambling, and food marketing [13, 14, 15, 16, 17, 18]. The review drew upon both peer-reviewed studies in academic and key grey literature, the latter of which provided important contextual understanding, particularly for the design and potential impact of regulation. Literature included, but was not limited to, reports produced by regulatory or statutory bodies, critiques of the regulatory system produced by charities, and legislative documents.

This structured narrative review set out to:

- 1. Identify and outline the approaches used to regulate digital marketing for HFSS food and drinks.
- 2. Explore the strengths and challenges associated with different approaches to regulation of digital marketing, and what can be learnt from the regulation of digital marketing in other contexts.

2 Considerations for regulating digital media

Establishing best practice for regulating digital marketing (including for HFSS food and drinks) is complicated by some of the unique challenges presented by new media.

Table 1. Unique challenges of digital media

- Digital marketing beyond country borders
- Promotional content beyond brand-controlled spaces
- Challenges in age monitoring
- Availability of data to inform regulation
- The pace of digital marketing and new media innovation
- Advertising automation removing human judgement
- Diffusion of responsibility among media operators, producers, and regulators

These are explained in detail:

- 1. Digital marketing can, and does, operate beyond country borders: Some HFSS food and drink brands operate social networking pages aimed at global rather than local or national audiences [19, 20, 21]. This ability to transcend physical borders, a phenomena referred to as 'global commons' or extra-territorial content, means that the responsibility for regulating marketing does not sit rigidly within the jurisdiction of a single country [10, 22]. Extraterritorial content is particularly important for marketing given that regulations are not uniform between countries and consumers can readily access content on a global scale. The concept of international content is cited as a limitation of the existing approaches to regulating marketing for HFSS food and drinks in Sweden and Denmark [23]. The challenges posed by extra-territorial content are compounded by a lack of consistency in policy at an international level. For example, the revised European Union Audio-Visual Media Services Directive further strengthened the 'country or origin principle', which states that media providers need only abide by the rules of the member country rather than multiple countries [24, 23].
- 2. Promotional content beyond brand controlled spaces: Self-regulatory codes in the UK only apply to digital marketing and advertising under the direct control of the brand ^[25]. The codes do not, however, account for user-generated branding outside of these controlled spaces, even if that content was published as marketing but then later adapted by a user. Examples of such content include personal user posts on social media (including content shared from a brand page, such as content retweeted with a quote), content created by bloggers or video-bloggers where there is no official paid relationship with the brand, fan pages created in homage of brands, and banned television adverts being uploaded to YouTube by a user. Other examples include viral trends such as eating challenges on YouTube where individuals try to consume a large quantity of branded HFSS food or drinks, or the 'Neknominate' alcohol drinking game ^[26, 27]. Digital marketing for HFSS food and drinks, particularly on social media, attempts to encourage consumers to participate with

- content, co-create marketing, and virally spread content, exposing children and young people to user-generated content and branding [28].
- 3. Challenges in age monitoring: Age verification for digital marketing for HFSS food and drinks is not used consistently, varies in quality and accessibility to children and is underpinned by weak designs ^[6]. There are wider challenges for accurately establishing and monitoring the age of those exposed to marketing content, and subsequent challenges in regulating this. For example, OFCOM reports indicate that although 21% of children aged 3–4 years own their own tablets, 86% report having access to a tablet and 65% report using one ^[29]. Similarly, for those aged 8–11 years, 52% report owning their own tablet, 86% have access to one and 80% report using one ^[29]. It is therefore plausible that children and young people may be exposed to content on devices that is intended for an adult audience, including marketing. Furthermore, even when young people own their own devices, the ability to effectively target marketing by age is still constrained by the individual providing accurate information when registering. Estimates suggest that almost half of 11 year olds have a social media profile, despite major social networking websites specifying a minimum age of 13 years old ^[29]. Approximately 80% of 11–15 year olds who had signed up to a social media website had done so with a false age ^[30].
- **4. Availability of data to inform regulation:** Digital media provides unique opportunities to use real-time browsing data to inform regulation. Currently there is no routine requirement for marketers to disclose data concerning digital marketing spend and strategy (including both paid-for advertising and operating costs associated with social media accounts and paid-for social influencers), and there is no responsibility placed on website platforms to provide details on which users are eventually exposed to content. Industry experts involved in monitoring and measuring the impact of digital marketing note that this lack of available data is not only relevant to regulators, but indicates relatively limited data sharing among the marketing, advertising, and media industries itself [31]. This highlights the complex arguments and possible issues of commercial sensitivity that are associated with making such information available.
- 5. The pace of digital marketing and new media innovation: Constant innovation in digital media means that there is a need for ongoing assessment of how new innovations might impact young people, and whether these innovations are adequately covered by existing regulations. Existing research on digital marketing for HFSS food and drinks has largely focused on the impact of advergames and traditional 'dotcom' websites and has largely not kept pace with developments. This includes sophisticated and integrated marketing on social networking websites, video-sharing content, smartphone applications, e-mail marketing, on-demand television and video streaming services, augmented reality packaging, social influencer content, and user-generated content. Existing policies should also be updated to match these developments. This is particularly challenging when revising or developing statutory approaches to regulation, as the consultation and production process can be time consuming and consideration must be given to how they interact with other existing regulations (e.g. packaging or point of sale promotion).
- **6.** Advertising automation removes human judgement: To improve the scale, speed, and cost of digital advertising, much of the process of buying and selling advertising space online has

been automated (also known as programmatic advertising), which is estimated to account for over 80% of total digital advertising spend [31, 32, 33, 34]. It has been suggested that imperfections or incomplete information in models can lead to advertising being placed in inappropriate online contexts [35, 36, 37]. The ability of programmatic advertising to protect children and young people is therefore seemingly contingent on algorithms quickly and accurately determining whether the marketing is for a HFSS food or drink product, the suitability of the advertising content for young audiences (including potential appeal), and whether placement on a particular website(s) may facilitate exposure among young people.

7. Diffusion of responsibility among media operators, producers, and regulators: The varied range of stakeholders involved in regulating digital marketing for HFSS food and drink appears to have created inconsistencies and a diffusion of responsibility concerning protection of young people. Balancing the capacity and commercial interests of these parties also creates challenges for developing and applying regulation in a consistent manner. For example, although the Advertising Standards Authority (ASA) and food and drink producers have self-regulations on digital advertising for HFSS food and drinks, neither digital media operators nor their representative bodies have similar stipulations. As the crucial gatekeepers of consumers, and given their critical role in shaping digital marketing practice, media operators and their representative bodies play an important role in regulating online content and designing best practice. The terms and conditions specified for websites also provide an opportunity to address inconsistency in regulation between countries, address the diffusion of responsibility created by international legislation adopting a country of origin approach, and address the unique challenge of extra-territorial content (e.g. global social media pages). Inaction by these stakeholders leaves potentially important gaps in the regulatory landscape.

It is crucial to investigate how adequately the UK's current self-regulatory approach can address these challenges, and what is needed to equip regulators to most effectively operate in the unique context of digital marketing.

3 The regulatory context in the UK

3.1. Stakeholders involved in the regulation of digital marketing

In the UK, a complex network of stakeholders have direct and indirect involvement in the regulation of digital marketing, including for HFSS food and drinks [38]:

Table 2. Stakeholders of HFSS digital marketing

- The UK Government
- Independent regulators of marketing and advertising
- Food and drink producers and the marketing industry
- Website and digital platform operators
- Digital advertising and marketing industry bodies

For clarity, this review only considers those concerned with regulating digital marketing. Organisations which oversee regulation of traditional media, for example OFCOM's role in scheduling and content restrictions on television, are adequately described and evaluated elsewhere [39, 40]. The current regulatory landscape for digital marketing in the UK includes:

The UK Government: The Government has overall stewardship of deciding how marketing is regulated [41]. Chapter 2 of the Childhood Obesity Plan acknowledged the link between marketing for HFSS food and drinks, including digital marketing, and the need to consider how to reduce the impact it has on young people [12]. Subsequently, a recent Government consultation sought views on a watershed for online HFSS advertising and further attempts to reduce placement in online spaces which may reach, or appeal to, young people [42].

Independent regulators of marketing and advertising: The Government currently devolves regulation of digital marketing, including for HFSS food and drinks, to two linked, self-regulatory bodies: (1) the Committee of Advertising Practice (CAP), which is responsible for developing the advertising codes of practice, including for HFSS food and drinks; and (2) the Advertising Standards Authority (ASA), which is responsible for responding to complaints, monitoring advertising practice, and enforcing the codes.

Food and drink producers and the marketing industry: In addition to the self-regulatory codes produced by the CAP and ASA, many of the multinational food and drink producers produce their own self-regulatory codes for marketing practice [43, 44, 45]. Codes of practice from individual companies are further bolstered by industry-wide agreements and initiatives organised through international trade bodies. For example, leading transnational companies such as Coca-Cola, McDonald's, PepsiCo and Mars are members of the International Food and

Beverage Alliance's (IFBA) commitment to responsible marketing [46] and are also signatories of the European Union (EU) Pledge to provide annual monitors of marketing activity [47]. As instigators of marketing and those responsible for setting the marketing goals (e.g. who the target audience is), both the food and drink and marketing industries are ultimately responsible for ensuring that their content complies with relevant and applicable codes of practice (including variations in regulation between countries) before being disseminated in the public domain.

Website and digital platform operators: As the gatekeepers of consumers (i.e. those using their services) and those responsible for developing and facilitating new ways to market products online, website and platform operators play an important role in regulation. Facebook, for example, has review processes for paid-for advertisements, stipulations on prohibited or restricted forms of advertising, conditions on targeting and positioning or adverts, and data protection of users [48]. While there are explicit rules and restrictions on advertising alcohol, dating, gambling, and financial services, among others, there is currently no explicit guidance on food and drink marketing (excluding for food supplements and weight loss products). Similar advertising guidance also exists for Google [49] and Twitter [50]. In almost all instances, websites state that all marketing must also comply with local- and national-level regulations (i.e. the CAP and ASA self-regulatory codes).

Digital advertising and marketing industry bodies: Exponential rises in internet use, both by individuals and commercial organisations, has also seen the emergence of internet-specific self-regulatory bodies. The Interactive Advertising Bureau (IAB), for example, is a global trade body for digital advertising that provides advice on industry standards, guidelines, and best practice ^[51]. Another example in the UK is JICWEBS (Joint Industry Committee for Web Standards), an organisation which oversees the independent development of good practice and standards for digital advertising trading ^[52]. These organisations primarily exist to protect 'brand safety' (e.g. to detect and address the risk of online advertising fraud and maximise the quality and consistency of advertising), as opposed to regulating the marketing content and potential behavioural implications. They remain relevant stakeholders in regulating digital marketing. The Incorporated Society of British Advertisers (ISBA), provides another such example ^[53] who provides a collective voice, training, consultancy and resources for UK advertisers.

3.2. Current UK regulation of HFSS digital marketing

The UK current regulations for the digital marketing of HFSS food and drinks has been summarised below.

Table 3. UK HFSS digital marketing regulation

- Self-regulated.
- HFSS products cannot appear in children's media (\leq 16 years) or any media children make up 25% of the audience.
- Promotions, licenced characters, and celebrities popular with children banned except those promoting healthier options.
- Guidance on use of 'social influencers' as a marketing tool.
- Food and drink manufacturers have their own codes of practice.

In the UK to date, it is the advertising and marketing regulators who have proactively responded to digital marketing of HFSS food and drinks through their existing self-regulatory codes and frameworks. In 2011, the ASA extended the remit of its Non-Broadcast Code of Conduct ^[54] to cover all online marketing channels considered to be under brand control, including paid-for advertising (e.g. banners and video adverts) and non-paid-for marketing (e.g. owned media such as brand websites and social media) ^[55].

Further revisions in 2017 stipulated that HFSS food and drinks—defined using the Department of Health and Social Care's Nutrient Profiling Model [56] — cannot appear in any children's media (defined as dedicated media for those under 16 years old) or any other media in which children make up 25% or more of the audience [57]. The revisions also restricted use of promotions, licensed characters and celebrities popular with children, except those which aim to promote healthier and non-HFSS options [57]. These restrictions apply to both traditional and online media, and include brand advertising that may indirectly promote a HFSS food or drink product [57, 58]

The regulators have also published recent guidance on use and practice of 'social influencers' as a marketing tool (e.g. famous video-bloggers or social media celebrities) [59]. This is important given that social influencers may increase the credibility of the marketing message or may lead to marketing intentions submerged below conscious awareness in the audience.

Responses by the UK's independent regulators are supplemented by revisions to the codes of practice produced by food and drink manufacturers to incorporate digital media [60, 61, 62, 63, 64]. Mars Incorporated, for example, have guidance on marketing through brand websites, digital advertising or content through third-party websites, mobile apps, text-messaging, and online promotions. This includes clear guidance on not marketing to those aged under 13 years old, using available metrics or partnerships with websites operators to verify age (when possible), and limiting underage consumers from providing user-generated content [65]. Other voluntary industry initiatives for digital marketing include providing links to health and nutritional information in online marketing, limiting the length of advergames, and not promoting unhealthy food and drinks through viral marketing [66]. The actions of trade and industry bodies also bolster the actions from individual manufacturers. Both Coca-Cola and PepsiCo state that their marketing practice is compliant with the International Chamber of Commerce's (ICC) framework for responsible food and drink marketing communications, which has specific stipulations on digital advertising [67].

The self-regulatory approach and the strength and limitations outlined below are not isolated to digital marketing of HFSS food and drinks. Research has also raised similar accounts of self-regulation for alcohol, including digital alcohol marketing [68, 3, 69, 70, 71, 72, 73].

3.3. Strengths of self-regulating digital marketing

Little financial burden on the Government or taxpayer: The present system is largely funded by an arms-length voluntary levy on the advertising industry ^[74], and thus places little economic burden on either the Government or taxpayer ^[75].

Enables greater flexibility and input from experts: Self-regulation, which is based on cooperation within the marketing and advertising industries, also largely avoids issues of jurisdictional or legal challenge, either to individual adjudications or to larger revisions in the regulatory approach. Compared to the development and enforcement of statutory laws, self-regulation provides greater flexibility (i.e. allows a range of soft mandates to encourage compliance, as discussed below) and empowers organisations with direct knowledge of marketing practice and innovation to design, revise, and enforce regulations [76].

Encourages global codes of conduct: Encouraging the industry to self-regulate should internalise ethical marketing behaviour and encourage large multinational corporations to develop global marketing codes of practice that propagate rules on ethical advertising beyond country borders. This helps to reduce inconsistencies in regulation between countries ^[76].

3.4. Limitations of self-regulating digital marketing

Relative exposure thresholds allow for high levels of absolute exposure: CAP's revised regulations permit digital marketing for HFSS food and drinks to appear in any digital media, providing no more than 25% of the audience exposed are under 16 years old. The use of relative proportions of audience share, however, can still equate to a large number of young people being exposed in 'absolute terms'. Some online marketing, particularly social media pages and YouTube videos, have been shown to achieve very large audience sizes, and supports the possibility of potentially high levels of absolute exposure [6]. There are also important questions about what information is used to verify the age of the audience and concerns that only assessing audience composition retrospectively might still facilitate high levels of absolute exposure in the first place. Although the current consultation on regulations includes suggestions to revise this threshold to 10% [42], the potential for high absolute exposure would remain even after this reduction.

The regulatory process depends on third party initiative and ad hoc complaints, as opposed to systematic monitoring: In most cases, the self-regulatory process begins when a third party (i.e. a consumer or an advocacy organisation) raises a complaint about marketing that they feel contravenes at least one item of the regulatory code. An investigation is then conducted by the regulators, judgement reached, and appropriate action (or informal resolution) reached. This process, however, places the onus for proactive monitoring on the consumers and not the regulators or marketers. As digital marketing for HFSS food and drink exists in high frequency and volume, this approach leaves open the likelihood that large volumes of digital marketing could 'slip through the net' if a consumer either does not have the capacity to make a complaint or is not sufficiently knowledgeable of the regulatory code to know when a contravention has occurred, or how a complaint can be made.

The process can be retrospective and slow: Digital media allows marketing to be uploaded more frequently and in greater volumes than traditional advertising. For example, a brand can upload multiple forms of content across its social media accounts every day [19]. Conversely, print and television adverts are bound to meet publishing deadlines and are subject to space restrictions. Processing complaints can take weeks, allowing digital marketing practice to continue in the interim until judgement is reached. If marketing is later deemed to be in contravention of the code, the real-time nature of social media means that both the original content, and any subsequent posts relating to the content (including those that are usergenerated), have already achieved the desired reach and effect before being removed.

Unlicensed brand characters can still be used: The revised ASA regulations on digital marketing for HFSS food and drinks restricts the use of licensed characters in marketing (e.g. celebrities or characters from films) — except when promoting healthier alternatives. The restrictions, however, do not make similar stipulations on the use of unlicensed brand equity characters providing they are compliant with all other code items ^[40]. This means brand characters, such as cartoon mascots who promote breakfast cereals, can still be used despite previous research suggesting this is a marketing technique successful in creating appeal in children and young people ^[40].

Real-world investigations highlight potential difficulties, subjectivity, and inconsistencies in the regulatory process: The Children's Food Campaign documented its experiences of making complaints to the ASA over a series of HFSS food and drink brand websites that it considered to be in contravention of self-regulatory code items ^[77]. The report summarised that the self-regulatory process was time-consuming for the complainant and that many complaints were rejected on the grounds of subjective or vague arguments. It reported that most adjudications focused on the letter of the code but not the spirit (e.g. contraventions need to be explicit not implicit) and the process favoured stakeholders with the time and resources to challenge complaints. The report also suggested that judgements were not based on expert knowledge or independent advice on what appealed to children, that decisions appeared to be inconsistent, and that complaints which were resolved informally were not made public, resulting in a lack of transparency on decision making.

Lack of meaningful sanctions and accountability: The lack of statutory powers of enforcement, or the lack of mechanisms to handle non-compliance of marketing from organisations that are not signatories to the industry or regulatory codes, means that self-regulation does not provide meaningful deterrents against non-compliance [3, 78]. For example, current sanctions described by the ASA for digital marketing include amendment or withdrawal of advertising, suggestions to media operators or bodies affiliated to the industry (e.g. search engines) to withdraw or restrict trading privileges (i.e. 'blacklisting'), and a 'name-and-shame' approach on the regulator's website [79]. There are, however, no direct financial penalties for non-compliance and no guarantee that any related media bodies would agree to the recommendation to blacklist a company. It is also possible that companies can receive or generate further publicity following a marketing complaint or ban (a 'forbidden fruit' appeal), resulting in amplified reach of the original content.

Self-regulation does not appear congruent to the attitudes of the population and young people: Research suggests that the public do not always agree with how self-regulation is applied for marketing. A survey with adults in the UK found that three-quarters believed that adverts for alcohol breached at least one item on the non-broadcast code of conduct ^[80]; alcohol adverts are regulated in a similar way to digital marketing for HFSS food and drinks. Similar inconsistencies are reported in other countries that employ a self-regulatory approach ^[81]. Furthermore, organisations such as the Youth Alcohol Advertising Council have shown that even when complaints are based on the views of young people themselves, regulators do not consistently uphold them ^[82, 83, 84].

4 Statutory alternatives for regulating digital marketing

Given critiques of the self-regulatory approach employed in the UK, this section reviews the design, strengths, and limitations of alternative statutory (i.e. state-led and controlled) regulation of digital marketing for fast moving consumer goods (e.g. HFSS food and drinks, alcohol, and tobacco). Some statutory regulations are designed to respond to the link between marketing exposure and consumption by reducing the overall volume and frequency of marketing or placement in specific media (i.e. content targeted at young people). Conversely, other statutory regulations focus on features that reportedly make advertising appealing or attractive, particularly to young people, by mandating controls on what content and marketing activities are permitted. Some statutory regulations respond to both the volume and frequency of marketing and the content within.

Previous research supports that statutory marketing restrictions are capable of reducing the volume and frequency of young people's exposure to traditional marketing, both for HFSS food and drinks, [85] and for other fast-moving consumer substances such as tobacco [86, 87]. To protect young people, the UK already has statutory restrictions on the scheduling of television advertising for HFSS food and drinks [40]; although evidence has questioned to what extent (if at all) this has reduced exposure in practice [88]. Due to the comparatively recent proliferation of digital media there are limited examples of statutory laws being applied to regulate digital marketing for HFSS food and drinks. The Consumer Protection Act, introduced in 1980 in the Canadian province of Quebec, provides one such example. The legislation prohibits any commercial advertising to children under the age of 13 years old, including for HFSS food and drinks and through digital media [39, 89]. This ban has reportedly had an impact on young people's purchasing behaviour [90] and there are examples of it being enforced against online marketing for food and drink products [91]. This policy, however, only applies to one predominately Frenchspeaking province in Canada, and thus does not provide evidence of regulation at a national level (i.e. also accounting for English speaking Canadian natives). Although Sweden and Denmark have similar national legislation which restricts commercial advertising to children (including for HFSS food and drinks), evaluations suggest that this has not kept pace with the development and unique challenges presented by digital media [23].

This section provides case studies of two nationally-applicable examples of statutory legislation that have been designed to address digital marketing of another fast-moving consumer good, specifically the regulation of alcohol marketing in Finland and France. HFSS products and alcohol have numerous parallels in terms of organisational structure, marketing practices, and regulation. Consequently, the good practice and principles for regulating alcohol (e.g. monitoring, enforcement, sanctions, definitions of media) can help inform our understanding for HFSS foods and drinks, even if there are some differences in the products and target market

(e.g. alcohol being age restricted). In both cases, many of the regulatory goals are largely the same; to limit harmful or excessive consumption and to protect children and young people. Finland and France's alcohol regulations were selected because they are the only two well-documented examples in which regulation for fast moving consumer goods have specifically been designed for digital media. This report reviews the design of both sets of legislation and discusses the strengths and limitations, providing insight into how regulations for digital HFSS marketing could be updated in the UK.

4.1. The 'default setting' of marketing

Approaches to marketing regulation employ either a positive or a negative 'default setting'. A negative default setting of regulation is to provide explicit guidance on what aspects of placement and content are *not* permitted. The UK self-regulations provide an example of this, as marketing for HFSS food and drinks is prohibited in media where at least 25% of the audience are under 16 years old and marketing is not, for example, allowed to include content that promotes irresponsible or immoderate consumption. The same over-arching position is true for the statutory legislation on digital marketing of alcohol in Finland. The assumption within these approaches is that any marketing activity that is not explicitly restricted in the legislation is, by default, still allowed. Positive default settings for regulation adopt the opposite approach, whereby the legislation explicitly sets out what marketing placement and content *are* permitted, with the underlying assumption that any marketing activity that is not explicitly detailed is, by default, not allowed. Legislation in France adopts this positive default setting.

4.2. Regulation Case Studies: Finland and France

Case study 1: Finland

Finland has historically had a suite of stringent controls on alcohol marketing, including advertising, taxation, price offers, and promotions [118]. In addition to existing restrictions on traditional media [111], the Finnish Government updated its Alcohol Act (Alkoholikaki) in 2015 to introduce specific restrictions prohibiting the use of any advertising, indirect advertising, or sales promotion for alcohol involving the marketing tactics summarised below [98, 121].

Table 4. Restricted Alcohol Marketing in Finland

- 1. **Online games and apps** such as advergames
- 2. **Online Competitions** including lotteries and contests
- 3. **Requests for users to share content** asking users to share posts from brand-controlled social media spaces
- 4. **Content intended to be virally shared** such as photos or videos on social media

Conventional internet advertising, such as banner advertising, is still permitted providing it complies with existing restrictions for other media (e.g. not being aimed at minors, not promoting products >22% alcohol by volume (ABV), not containing irresponsible messages such as linking alcohol to sexual or personal success). Alcohol-related content produced on consumers' own personal or commercial online space (e.g. social media profiles, personal website, e-mail) is still permitted, providing there is no financial agreement or connection to the alcohol industry (e.g. endorsement or sponsorship) [118].

While traditional forms of advertising are overseen by regional bodies, The National Supervisory Authority for Welfare and Health (Valvira) is responsible for advising and enforcing digital media regulations, although this is largely initiated through third-party complaints as opposed to proactive monitoring [98, 99, 111]. Those who breach restrictions are, at least initially, asked to remove any marketing that is in contravention, and are offered guidance on future practice. Those found to be in continued breach of the law, either by not removing material or by repeating an offence, may be liable to pay a fine [122].

Strengths

• The Finnish legislation applies comprehensively across digital media (from standalone websites to social media pages), applies across new media devices (from computers to smartphones or tablets), and defines digital media in broad terms (i.e. 'information network service') which likely accounts for future innovations in digital media (e.g. advances in smartphone or app design. Moreover, the Finnish law uses objective product attributes (ABV %) to place overall limits on which products can be marketed through any form of digital media, an approach that can also be applied to HFSS food and drinks based on nutritional characteristics. Even when digital marketing is permitted, the Finnish law also places restrictions on who the permitted target audience can be and what messages can be suggested about consumption or associated outcomes.

• The Finnish legislation does not permit marketers to co-opt users into the marketing process to facilitate the viral spread of content or to use user-generated content to enhance the perceived credibility or appeal of marketing. This includes, for example, not allowing marketers to request or reuse 'fan photos' or make requests for users to like, comment, or share content on social media to enter a competition. Research suggests that perceived peer endorsement or interaction with digital marketing, which blurs the boundaries between commercial and user-led content, can increase the salience and potential influence of marketing and challenge young people's ability to identify marketing intentions [117, 116]. User engagement is frequently used to virally spread content, engage users, and enhance credibility of marketing. The legislation in Finland removes the opportunity to use this technique.

Limitations

- The law does not apply if the marketing content is produced and disseminated from another country, unless it can be proven that it is specifically or intentionally targeted at consumers in Finland (e.g. produced in the Finnish language) [98, 118]. Consequently, the legislation cannot stop: an individual from following and sharing content from the global marketing page of a brand on social media, an individual watching or following video or photo content from a sponsored social influencer in another country, or product placement in global video-streaming services. Given the ubiquity of the English language, determining the targeting of UK audiences for digital marketing of HFSS food and drinks is a greater challenge. It is also likely that there are legal and practical challenges in enforcing national marketing legislation to stakeholders or organisations based in a different country, and there appears to be a lack of any precedent on how this could be enforced.
- The practicalities of how compliance is monitored and enforced share many similarities with the UK self-regulatory system. For example, the law is applied retrospectively, meaning that the marketing will have already been uploaded and will have likely already achieved its intended marketing reach. Regulation is also still largely reactive and is seemingly dependent on external or third-party complaints, and no evidence was found of routine and proactive monitoring or screening of digital content outside of research purposes. Furthermore, the initial response to any contravention appears to still be grounded in 'soft mandates' (i.e. removal of content and guidance on future practice) as opposed to instantly applicable 'hard mandates' (i.e. a financial penalty), which may potentially create limited deterrent from non-compliance.
- While evaluation of the legislation in Finland is limited, research suggests that the law has not significantly affected the **overall volume of alcohol advertising that exists on social media** [98, 99, 101]. This is likely because the legislation only places restrictions on what marketing techniques can be used, rather than how much content can be produced. Furthermore, although evaluations suggest that the law has been successful in prohibiting marketers from using user-generated content on social media, it does not affect users ability to like, comment on, or share brand posts, as long as they have not been encouraged to do so by the marketers [98, 99]. There is also evidence that underaged profiles can still access alcohol marketing content on social media [98, 101]. This highlights the unique challenge of using statutory regulations to limit the spread of marketing in environments that are fundamentally based on the ubiquitous sharing of content among users and the ability to deliver content globally in a consistent manner. It also highlights that placing restrictions on how a marketing channel can be used, but without prohibiting its use entirely, encourages further innovation and diversification towards appealing, engaging, and attractive marketing through remaining mechanisms.

Case study 2: France

France controls digital alcohol marketing through a regulatory approach known as the Loi Évin, enacted in 1991 and revised in 2008 to cover interstitial (i.e. adverts before a webpage is displayed) or intrusive (i.e. display banners or pop-ups) advertising on the internet as well as any online content which may appeal to young people [102]. It was updated again in 2012 to extend these restrictions to social networking websites. The statutory legislation for alcohol marketing in France (the Loi Évin) has three core components:

Table 5. Alcohol Marketing Legislation in France

- 1. **Placement** alcohol marketing placement (for any product >1.2% ABV) is only permitted in print press media targeted at adult audiences, radio after certain time restrictions, billboards and outdoor, inside point of sale spaces, and leaflet and mailshots.
- 2. **Content** alcohol marketing must contain factual information about the product, for example ABV (%), place of origin, and characteristics of the product
- 3. **Health warnings** all advertising must contain a mandatory health warning concerning alcohol consumption

Mandatory health warnings are also employed in France for print and broadcast advertising for HFSS food and drinks, which must contain one of four health messages (e.g. 'Avoid snacking between meals' and 'Eat at least five portions of fruit and vegetables every day') [89]. As of February 2019, these rules are being extended to mandate that food and drinks advertising, including on the internet, must contain an official 'nutri-score' scale that gives an indication of health [21, 90, 91].

Some proactive monitoring of compliance is undertaken by a non-governmental organisation, the Association Nationale de Prévention en Alcoologie et Addictologie, but there is no formal monitoring and enforcement body. In practice, any individual or organisation can make a complaint about marketing that they feel contravenes the law.

Strengths

- The Loi Évin uses **objective and legally definable characteristics** about the product to identify which brands and products are subject to placement restrictions (i.e. the ABV % strength). Even when marketing is permitted, only factual product information is permitted to be communicated. Content research has shown that evocative and aspirational lifestyle features appear to be a key feature of digital marketing for HFSS food and drinks, rather than factual information about nutritional characteristics ^[6]. Moreover, qualitative research has also demonstrated that such messages do resonate with and appeal to young people ^[6]. A focus exclusively on product characteristics may potentially shift the balance in HFSS marketing in favour of objective information about nutrition.
- In instances that alcohol marketing is permitted, the Loi Évin requires that the communication must carry mandatory health messaging. This information is not universally present in digital marketing for HFSS food and drinks. Even when such messages are displayed, content analysis research suggests that they can be strategically ambiguous, may only contain limited information, and may have limited visibility [6]. Mandating the presence and style of such health messaging provides a key counterpoint and moderator to the marketing message, both to young people incidentally exposed to marketing and to adult consumers who are legal marketing targets.

• The Loi Évin has **credibility in terms of enforcement, support and replication**. The law has been previously enforced, showing that there is a legal precedent for responding to contraventions of placement and content online [107, 108]. Judgements include examples of court-imposed financial penalties on industry, showing punitive mechanisms and tangible deterrents to non-compliance [109]. The Loi Évin has also been endorsed by the EU Commission as being justified on the grounds of protecting public health [112]. The Republic of Ireland has also recently enacted similar 'positive default' legislation for alcohol marketing through traditional media, including restrictions on placement and stipulations for only factual information and health warnings, thus establishing a precedent for legal replication in other countries [106].

Limitations

- The Loi Évin does not contain explicit restrictions on co-opting users into the marketing process on social media, either as creators of content or as facilitators to virally spread content, including to young people. This omits a key marketing strategy used in HFSS marketing. Concerning efficacy, research also demonstrates that young people in France still recall seeing alcohol marketing online at least monthly [102]. This may be the result of exposure to global marketing activities, viral or usergenerated marketing, or through subtle or implicit marketing (e.g. social influencers), although further research is required to understand the exact nature of this. Future legal judgements will likely provide further restrictions on placement for digital marketing activities that may account for this exposure (e.g. restricting placement on social media or video sharing websites). However, the need for such revisions to be established through legal processes, and the associated delays, demonstrate the time-consuming and practical challenges of revising statutory regulations in line with the fast-moving nature of digital marketing.
- Research has also questioned to what extent companies comply with the Loi Évin legislation and whether compliance or enforcement has weakened or become inconsistent over time. For example, although the Loi Évin was successful in prohibiting an alcohol producer from sponsoring the World Cup in 1998 [114], an alcohol brand was permitted to be one of the leading sponsors of the UEFA EURO Football tournament in 2016 [97]. Its sponsorship activity included extensive pitchside and social media marketing, and exclusive fan zones [115]. As both football tournaments were held in France, this inconsistency in application of the law over time highlights the challenges presented by enforcing statutory legislation in a manner that prioritises public health whilst maximising the economic contribution of commercial activity, such as marketing.
- There is concern that the Loi Évin restrictions **simply encourage further marketing innovation**. For example, in the aforementioned UEFA EURO tournament, the sponsoring alcohol brand employed an 'alibi marketing' strategy, whereby highly visible marketing materials distilled the brand identity to its core identifiable components (e.g. brand font, colours and components of the slogan) although no brand name was used [97]. The brand claimed that their marketing made no attempts to promote alcohol at the tournament [119] and, to date, there is no definitive legal judgement. Similar increased use of alibi marketing has been noted for tobacco companies in response to increasingly dark markets [113]. It is possible that increased use of alibi or implicit brand marketing could be a concomitant outcome of statutory restrictions for food and drink marketing. UK regulators acknowledge that any decision on whether 'alibi marketing' would be in contravention of their revised guidelines on HFSS marketing is context dependent [120], and the subjectivity of decisions remains one of the key limitations of the current self-regulatory approach [77].

5 Key lessons from statutory case studies

The use of statutory regulations to control digital marketing for fast-moving consumer goods is a rapidly developing area. The case studies from France and Finland provide precedents to use in drawing up a best practice checklist for regulators to adhere to.

Lessons for Successful Regulation



Introduce regulations with clear definitions

Regulation should set out appropriate, objective and sufficiently wide-ranging definitions of digital marketing, using language which is compatible with the media and marketing industries.





Regulation design should be regularly revisited to ensure it keeps up with marketing and media developments. By using definitions that are not exclusive to specific digital media channels can help ensure that regulations are prepared for future media developments"

Require marketing to meet 'minimum standards of design'



Minimum standards of design, which provide information about nutritional content, consuming a balanced diet, and combining diet with physical activity can help to counter-balance the suggestive messages in marketing.

Sufficiently monitor and enforce regulation



Effective regulatory design should be combined with robust independent monitoring and clear sanctions via formal processes to ensure that producers comply with restrictions and to proof against future marketing tactics.

Regularly evaluate the effects of regulation Regulation should be regularly evaluated to i



Regulation should be regularly evaluated to monitor the impact of marketing exposure in young people and the association with knowledge, attitudes, and behaviour.

Existing regulation should be updated in accordance with marketing and media developments

Research exploring young people's experiences of tobacco marketing reports that exposure to such content online appears to be increasing, despite many countries having stringent controls on tobacco advertising and marketing [92, 93]. This highlights the importance of revisiting the design of regulation to ensure that it continues to provide the same benefits and protection in a fluid media and marketing landscape. Finland, for example, revised their alcohol marketing legislation to accommodate digital marketing on top of existing restrictions for other forms of alcohol marketing, while France actively set precedents for action through new complaints and legal cases. One limitation of the existing approaches for regulating marketing for HFSS foods and drinks in Sweden and Denmark is that the legislation has not progressed with marketing innovation and media development [23].

Regulation can accommodate innovative and interactive digital marketing, but definitions are important

In Finland, the legislation is based on definitions that are not exclusive to specific digital media channels, websites, or devices. Consequently, the legislation accommodates strategies such as viral marketing, user-generated branding, and competitions based on user interaction across a range of digital media channels (e.g. smartphones, tablets, and computers). Conversely, as the Loi Évin in France was originally designed to regulate traditional marketing, precedents on how digital marketing should be defined are only generated through new complaints and adjudications. Consequently, to date, France does not have explicit stipulations on many aspects of digital marketing that are already covered in Finland (e.g. user-generated content), although neither legislation is wholly comprehensive. Any future attempts to regulate digital marketing for HFSS food and drinks in the UK should be based on appropriate, objective and sufficiently wide-ranging definitions, including language congruent to the media and marketing industries.

The default setting of regulation has a fundamental bearing on the nature of marketing

Positive approaches to regulation, as applied in France, restrict the placement of marketing and limit content to factual or objective information about the products. All methods of placement and messaging not detailed in the legislation are prohibited. Such controls remove many of the subjective challenges associated with 'negative default settings' (i.e. whether marketing can be adjudged to have messages which link to personal or sexual success) as the content is not permitted in the first instance. The UK currently adopts a 'negative default setting' for regulating HFSS food and drink marketing. Future revisions could consider whether, and how, elements of a positive default setting can be incorporated. This provides benefits to both young people and adult consumers who are frequently exposed to marketing.

Regulations can help reduce exposure to marketing across all consumers, and not just subgroups

The Loi Évin mostly places restrictions on marketing at a channel level, for example by prohibiting all forms of television advertising and sport sponsorship. Restrictions at a channel-level mitigate the challenges and subjectivity associated with determining whether subdivisions within each marketing channel are likely to reach and appeal to young people (i.e. whether a television programme or social media space may appeal to young people or whether the \geq 25% of audience are children and young people). This approach also reduces the challenges that children and young people face of crossing a quasi-binary threshold at a certain age in which they go from seeing no marketing to a potentially limitless volume of evocative and stimulating marketing content. Regulation can also potentially limit overall marketing exposure, including in older consumers who may also still be influenced by marketing.

Marketing can be required to meet 'minimum standards of design'

For HFSS food and drinks, information about nutritional content, consuming a balanced diet, and combining diet with physical activity, plays an important role in counter-balancing the salient and evocative messages in marketing. The French Loi Évin demonstrates that statutory legislation can mandate marketing to include health messaging and can mandate the visibility and design of this message. Standards for the content and appearance of health messages can be determined objectively and independently (for example, by nutritionists or communications researchers). The concept of minimum standards of design is not uncommon in the food and

drinks industry. For example, it is mandatory for nutritional information to be provided on prepackaged foods and drinks sold in the UK ^[94]. From the marketing perspective, regulators of internet advertising also stipulate minimum requirements for design to prevent advertising fraud and maintain brand safety ^[95]. There also appears to be no obvious rationale why minimum standards of design could not be overlaid across, or imposed on, existing self-regulatory codes for HFSS food and drink marketing in the UK.

The success of regulation appears contingent on effective design, enforcement, monitoring, and realistic deterrents

While the legislation in France and Finland are cited as exemplars of regulation ^[3, 96], there is evidence that producers do not necessarily comply with the spirit of the legislation ^[97]. There are also suggestions that such restrictions may lead to further marketing innovation which fall outside the scope of regulation (e.g. 'alibi marketing') ^[98, 99, 100, 101]. In both France and Finland, there is limited evidence of any formal processes for monitoring marketing activity, with most complaints instead raised by third parties (e.g. individuals or non-governmental organisations). This suggests that effective regulatory design should be combined with robust independent monitoring and defined sanctions or deterrents.

The effects of regulation must be regularly evaluated

Research that has evaluated the impact of regulations controlling digital marketing for fast moving consumer goods is limited. In Finland, most research only considered changes in marketing practice before and after the legislation [98, 99, 101] and there is no evidence on the impact on marketing exposure in young people or the association with knowledge, attitudes, and behaviour. In France, although there is recent evidence on how much alcohol marketing young people recall seeing online [102], there is limited evidence investigating how digital marketing is used to promote alcohol and there is no pre and post- comparison of how the legislation impacted on exposure or consumer behaviour. Any revisions to regulation in the UK should be accompanied by robust evidence-based evaluations, building on the baseline studies conducted.

6 Policy Recommendations

There is no 'silver bullet' to reducing obesity, and tackling this issue will require a UK-wide, whole-system approach. However, decisive policy action at a national level – and implemented without delay – will be key to achieving the Government's goal of halving childhood obesity rates by 2030. Further restrictions on HFSS marketing on TV and online are critical to achieving this reduction. The UK Government consulted on these measures in April-June 2019, and, separately, on proposals to mitigate online harms. Follow up action is now needed.

Through its assessment of the effectiveness of the UK digital advertising regulatory system and the lessons it draws from alternative methods of regulating online marketing, this report demonstrates the need for policy action to better regulate the online marketing space and sets out the principles which must underpin effective regulation.

A new framework for regulating HFSS marketing

The starting point of good regulatory practice would be for the UK Government to build on the World Health Organization Europe's recently launched framework for governments to monitor children's exposure to harmful marketing online (including HFSS food and drink) [10].

The next step would be to ensure the regulatory framework matched the best practice outlined in our checklist, which has been informed by lessons from digital regulation in other spheres and countries. The UK Government and the bodies it delegates regulatory responsibility to should introduce mandatory regulations with clear definitions, update these definitions as media evolve, and require marketing to meet minimum standards of design. This should be underpinned by a strong regulatory system.

There is a compelling argument that the UK's reliance on self-regulation by industry and lack of real consequences for non-compliance is not fit for purpose. We would like to see robust independent monitoring and clear sanctions via formal processes to ensure compliance with restrictions.

The mechanisms for regulating HFSS marketing

To effectively protect children from exposure to HFSS marketing, the UK Government must introduce further restrictions on HFSS advertising across all forms of media, including digital.

Cancer Research UK is calling for the UK Government to implement a comprehensive 9pm watershed on HFSS products across linear TV, catch-up and TV on-demand services and also to adverts online and on social media. This would reduce children's exposure, support parents to help keep their family healthy, provide a consistent approach for industry, and minimise the risk of displacement of HFSS marketing to other media. For similar reasons, there is a strong case to extend such restrictions to cover cinema, radio, outdoor, direct and experiential marketing; as well as new rules about what is permissible on HFSS packaging too.

We support the use of the 2004/5 Nutrient Profile Model (or the latest model when approved), without any exemptions or additional criteria applied, to determine what is 'less healthy' and

thus unable to be advertised within the restrictions.

The United Nations Convention on the Rights of the Child clearly sets out the rights which governments must guarantee for children. This includes the right to health. The Convention dictates that all children deserve equal protection. If we were to apply this approach to HFSS marketing, a policy would fail to meet this requirement if it risked creating two classes of children, one of which it was acceptable to market HFSS food and drink to. We therefore do not believe that it is equitable to specify an acceptable number of children that could be exposed to adverts for HFSS products. The rights of all children to be protected from exposure to HFSS food and drink advertising must be prioritised.

Additional mechanisms for regulating HFSS digital marketing

We do not agree with the UK Government's proposal in the recent HFSS marketing restrictions consultation to exempt advertisers that can demonstrate 'exceptionally high standards of evidence' that children will not be exposed to HFSS advertising. We know that children consume content popular with adults and that children falsify their age online or use parents' or shared household accounts. Existing methods to determine a user's age online are not sufficiently accurate, which means companies cannot guarantee they are not exposing children to their adverts.

Likewise, it is currently not possible to independently monitor and verify these numbers because online media platforms do not share audience data for their adverts. For any age verification process or platform to be independently monitored and verified, online platforms and media agencies must make this data publicly available.

Technology and the digital marketing landscape are ever-evolving. We believe that the companies that own these channels and media have sufficient resources to create mechanisms to restrict advertising on a time basis where required. If they are unable to, then this kind of advertising should not be able to be used for HFSS products; otherwise it risks exposing children to HFSS adverts.

The timing of mechanisms for regulating HFSS digital marketing

Restrictions should come into effect for all forms of TV and online advertising at the same time. If simultaneous restrictions, however, meant a significant delay to introducing restrictions on one form of media, we would prefer to see Government prioritise implementing the policy on TV-like forms of digital media as soon as possible. However, we consider that restrictions covering most forms of online marketing could in fact be introduced quickly by regulatory bodies. Precedent was set in December 2016, when CAP announced planned restrictions on non-broadcast media, which then came into effect only seven months later, in July 2017.

7 Limitations and future research directions

Owing to a lack of relevant examples for food and drink marketing, both case studies of statutory regulation focused on digital alcohol marketing. The intention of these case studies is to highlight whether any insight could be applied to the marketing of HFSS food and drinks in the UK (e.g. minimum standards of design and the importance of clear definitions). It was not the intention to imply that HFSS food and non-alcoholic drinks are comparable to alcohol. In the UK, France, and Finland, alcohol is an age-restricted product, and thus the availability to young people and the parameters for regulation and legal consequences of consumption or sale are not direct equivalences to HFSS food and drinks.

A key area for prospective research concerns the design, evaluation, and efficacy of regulatory systems. Although current evidence favours the conclusion that self-regulation has limited efficacy ^[77, 70], there is also a lack of robust evidence demonstrating the efficacy of alternative statutory approaches for digital marketing in Finland and France ^[98, 102]. It is important that any legislative changes resulting from the UK Government's consultation around television and digital marketing for HFSS food and drink marketing ^[42] are robustly evaluated in terms of implementation, compliance, and impact on consumer attitudes and behaviour. Robust evaluations of France's decision to introduce 'nutri-scores' to advertising would be similarly useful. Finally, given the unique challenges presented by digital and new media marketing, research exploring the perspectives of stakeholders involved in the production, research, consumption, and regulation of digital media would be of value to identify feasible and effective options for regulation and form a consensus on appropriate action. Previous research into alcohol marketing regulation provides a template for such investigation ^[103, 104, 105].

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