

# Proposals to make the food environment healthier

## Introduction

I would like to respond to

both the consultation and call for evidence (parts 1 and 2)

## Part 1: consultation seeking views on the draft regulations and enforcement approach for The Food (Promotion and Placement) (Wales) Draft Regulations

Question 1. Do the draft Regulations describe the promotion and placement restrictions accurately and clearly for both business and enforcement agencies to implement and enforce?

No

**Please explain your answer. If you disagree with the proposed descriptions, please outline how you would describe the restrictions instead.**

The location restrictions apply to store entrance, aisle ends and checkout/queueing areas but do not include covered external areas and free-standing displays in these regulations. It has been observed in England that retailers shifted their HFSS products promotions to these locations. Scotland, in their consultation on similar regulations, has taken action to restrict these displays specifically. We recommend the inclusion of covered external areas and free-standing displays in these regulations. We believe that the definition of end of aisle should stipulate that free standings displays cannot be added anywhere to the end of an aisle, either free-standing or attached, can only include non-specified products. They should also not display the branding of any specified products.

Prohibiting the placement of in-scope products within the entire first aisle of the store would be a beneficial addition. There is good evidence that products in the first aisle sell well and there is anecdotal evidence from implementation of the Food regulations in England that first aisle have been heavily used in stores to promote HFSS products throughout the year.

The volume restrictions are applicable to promotions on packaging of products as well as communicated via other means. It would be helpful to describe what is meant by 'other means' here to remove ambiguity.

In the UK, food is categorised as HFSS by scoring on the 2004/2005 Nutrient Profile Model (NPM). The 2018 NPM is a revised version to reflect updated government and scientific dietary recommendations, but it has not been adopted by the UK Government. No public rationale for the delayed use of the 2018 NPM has been issued. This delay leaves a situation where current food policy in the UK is being governed by an out-of-date measure of unhealthy foods because it aligns with the old national recommendation to consume no more than 10% of total energy intake from free sugars; the current recommendations stipulate no more than 5% of total energy intake from free sugars.

The usefulness of the 2004/2005 nutrient profile model is questionable. For example, Kellogg's coco pops cereal is marketed to young children and contains 386 calories and 17g sugar per 100g, as well as UPF ingredients such as glucose syrup, malt syrup and flavourings. However, due to low protein and fibre thresholds in the NPM, the reformulated version of coco pops' is no-longer HFSS because its protein (6.3g) and fibre (3.8g) content means it only has an NPM score of 2 so is not classed as a 'less healthy' food. Similarly, Doritos loaded pepperoni pizza crisps are a savoury snack that includes UPF ingredients such as monosodium glutamate and other flavour enhancers. It contains 479 kcal, 2.1g of fat and 0.87 g of salt per 100g which would indicate a high HFSS score however, its fibre (6.4g/100g) and protein (7.0g/100g) significantly reduces its score to 1. Our research with health professionals recommended the use of updated 2018 NPM to categorise products as in-scope or out of scope for accurate reflection of product healthfulness.

For ease of implementation by UK wide businesses it would be helpful to have the same categories included in regulations across the two jurisdictions. However, there are a number of improvements that could be made to the in-scope category descriptors that would further increase the public health impact of these regulations.

In particular, the inclusion of only pre-packed foods and the exemptions in the existing England regulations means that items such as branded doughnuts, unpacked morning goods and pick and mix confectionery can currently be promoted in prominent positions. Whilst we recognise that the lack of packaging also means a lack of nutritional information to determine a nutrient profile score, a common sense approach could be used given the high sugar levels of these products (the nutrient profile score of the lowest calorie Krispy Crème donut (products often sold at commission stands in England) is 7 which would make this a specified food if it were packaged.

Listing examples of products in each category will help both businesses and local authority enforcers identify products that require NPM scoring for assessment.

Of the food categories that are in-scope a number of categories have exemptions and rules that renders the legislation complex to enforce and ambiguous for Food trade associations, retailers, manufacturers, wholesalers, and local authority enforcers. (Muir et al, BMC Medicine, 2023) Our academic group which consists of public health nutritionists also have difficulties determining the categories of some products. For example, non-pastry products in a sauce are in-scope of the legislation but products in a marinade, glaze or dressing are not. It would be many people's view that a glaze, marinade, and dressing would all be considered variants of a 'sauce'. Rice cakes and crackers that are sold to be eaten in the same eating occasion are in-scope, but larger packets are not even though the nutritional content of these products do not differ.

Furthermore, as part of our evaluation of legislation compliance in supermarket online marketplaces (Muir et al manuscript in draft) we have calculated the NPM scores for a large number of products and identified that potato products and breaded/battered fish and chicken products rarely receive an NPM score that would classify them as less healthy products, yet these are unhealthy food sources for many children.

There are other equivalent online locations that should be within policy scope such as pages not intentionally opened by the consumer and checkout pages, the regulations in England also provide instances of searching for items and browsing taxonomy pages (e.g. similar to an in-store aisle this is a page designed to show similar items e.g. fruit). The guidelines for searching or browsing online marketplaces state that an online marketplace should not promote specified food when a customer searches for a non-specified food (e.g. should not show cake when a banana is searched for) and should not promote a specified food from a different category if they search for specified food (e.g. should not show confectionery if a dessert is searched for). However, there are a number of caveats to this (examples of where "certain instances apply" in the legislation) whereby if the search term used is found in the product name or product ingredients then those items can be displayed. For example, if a person searches for "prawn" (a non-specified food) or browses a page containing prawns it is acceptable to show prawn cocktail crisps (a savoury snack with prawn in the name) or a ready meal containing prawns in the ingredients. Similarly, if a person searches for or browses chocolate, which is a specified food, that page can also show chocolate ice-cream or chocolate biscuits as this also has 'chocolate' in the name of the product or as an ingredient. Furthermore, an exemption related to 'relevant special offers' (i.e. a sandwich or dinner meal deal), means that an online marketplace can promote other items within that offer when another element of the offer has been searched for. It is our opinion that these exemptions undermine the health benefits of the legislated rules.

Our preliminary results of a mock shopping list task to search for 12 non-specified products such as bananas, potatoes, cheese and eggs demonstrated many instances of HFSS promotion as a result of these exemption loopholes. When we searched for bananas, 71.43% and 35.60% of all products displayed from a discount supermarket and a high-end supermarket, respectively, were specified foods: all of these products were allowed to be displayed due to these exemptions. Therefore, although these search results were fully compliant with the regulations as they stand, customers would not receive any public health benefit given the high number of HFSS products still promoted. We heavily recommend removing these exemptions to the rule.

#### Additional comment on in scope businesses-

We use data from EG radius, compiled from commercial real estate data, which gives location and size (in sq ft) for retail outlets in the UK to shed light on the implications of the definition of in-scope retail outlets.

#### We find the following:

- Store sizes are relatively larger in Wales compared to England.
- 42% of retail stores in Wales are bigger than 2,100 sq ft, compared to 33% in England (in terms of retail store size,).
- Under the conservative assumption that 20% of retail space is dedicated to back-office functions and storage, 50% of stores in Wales would be exempt from the policy (compared to 60% in England).

Question 2. Do the draft Regulations describe the free refill restrictions accurately and clearly for both business and enforcement agencies to implement and enforce?

No

**Please explain your answer. If you disagree with the proposed description, please outline how you would describe the restrictions instead.**

Further detail on free refills could be provided as in England regulations to help businesses and enforcement agencies to implement and enforce these restrictions.

## Aisle end restrictions

Question 3. Do you foresee the difference in the way that aisle end restrictions are set out in England and Wales' equivalent regulations causing any operational challenges for qualifying food businesses or enforcement officers?

No

**Please explain your answer.**

We believe that the definition of end of aisle should stipulate that free standings displays cannot be located within 50cm or beyond 50cm of the aisle ends to remove the possibility of doubt that a free standing display could be situated at 55cm from an aisle end as is observed in England.

## Enforcement

Question 4. Should local authorities issue improvement notices in cases of non-compliance with restrictions as the first formal action, as set out in paragraph 19 of the consultation document?

Yes

**Please explain your answer. If you disagree with the proposed approach, please outline what approach you would see instead.**

We recommend informal actions in terms of raising awareness about regulatory guidance and engagement activities with businesses are recorded. Following these if there is still non-compliance, issuing improvement notice is an appropriate first formal action.

Local authorities should be provided ring fenced funding for conducting business support activities raising awareness about regulations and helping smaller businesses understand layout changes needed within their stores. (Muir et al 2023) Enforcement officers also need support with training such as e-learning modules to interpret guidance. Programs should be undertaken to increase the number of trained personnel for conducting enforcement activities as currently there is manpower shortage. (Dhuria et al, under review)

Question 5. Are there circumstances where an improvement notice may not be appropriate?

No

**Please explain your answer.**

Regulations need to be supported with appropriate enforcement actions or else the regulations are likely to be ignored by businesses.

Question 6. Where a business fails to meet the terms of an improvement notice, is a fixed monetary penalty of £2,500 appropriate, as set out in paragraph 20 of the consultation document?

No

**Please explain your answer. If you disagree with the proposed approach, please outline what approach you would see instead.**

Fixed penalty notices could be made more stringent by issuing fines proportionate to business sizes.

Question 7. Are there circumstances where a different approach might be more appropriate?

Yes

**Please explain your answer. If answered yes, please explain the specific circumstance and preferred enforcement approach.**

Our research with local authority officers highlighted the importance of proportionate fines based on the size of organisations to deter non-compliance effectively. This approach not only promotes fairness by ensuring that penalties are equitable for smaller businesses but also appropriately penalises larger businesses whose impact and capacity for compliance are greater.

Question 8. Is 28 days an appropriate period to make representations and objections or to discharge liability for a Notice of Intent, as set out in paragraph 21 of the consultation document?

Please note: the Regulatory Enforcement and Sanctions Act 2008 (RESA) specifies that 28 days is the longest period that can be permitted, therefore any alternative suggestions must be less than 28 days.

Yes

**Please explain your answer.**

This is considered standard practice.

Question 9. Where a fixed monetary penalty has been issued (for example, for failure to comply with an improvement notice) should a person be able to discharge liability upon being issued with a fixed monetary penalty at a rate of 50% of the penalty issued, as set out in paragraph 21 of the consultation document?

Yes

**Please explain your answer.**

A repeat act of non-compliance within a set period for example six months should again attract another fixed penalty notice.

Question 10. Is 28 days an appropriate length of time to pay or appeal a final notice, as set out in paragraph 23 of the consultation document?

Please note: the RESA specifies that 28 days is the longest period that can be permitted, therefore any alternative suggestions must be less than 28 days.

Yes

**Please explain your answer.**

This is considered standard practice.

Question 11. Should failure to pay or appeal a penalty within 28 days result in the penalty being increased by 50%, as set out in paragraph 23 of the consultation document?

Yes

**Please explain your answer.**

This is considered standard practice.

## Supporting guidance

Question 12. Are there any areas that need to be specified in guidance to allow businesses to implement the policy successfully?

Yes

**Please explain your answer.**

Additional detail on how the number of employees for a franchisee business will be calculated will help businesses.

Question 13. Are there any areas that need to be specified in guidance to allow enforcement agencies to implement the policy successfully?

Yes

**Please explain your answer.**

There should be requirements for businesses to provide their store size and employee number to their local enforcement officers at least annually. This requirement would facilitate enforcement which is required for compliance and achievement of a level playing field.

## Impact assessments

Question 14. What, if any, challenges resulting from the proposed Regulations do you feel should be further recognised within the draft regulatory impact assessment, particular to your field of interest?

We would also like to see additional regulations that prevent alcohol from being promoted in prominent locations in place of HFSS foods. Retailers have told us that as alcohol is a high-value product which provides good profit for them then they will likely promote this in place of HFSS products. (Muir et al., 2023) Given the health implications of excessive alcohol consumption including risks for liver disease and cancers we believe it would be wise to restrict retailers from only being able to promote alcohol in aisle-ends placed at existing alcohol aisles.

Lack of sufficient funding being provided to local authorities to conduct enforcement activities. This aspect of underfunding enforcement has been seen as detrimental to intended impact.

Question 15. What, if any, positive effects resulting from the proposed Regulations do you feel should be further recognised within the draft regulatory impact assessment, particular to your field of interest?

N/A

**Question 16.** Do you have any comments on the emerging conclusions in the draft impact assessments for Welsh language, children's rights, or equality and human rights, and if so what evidence do you feel should be further considered particular to your field of interest to support your comments?

The Equality Act 2010 prescribes protected characteristics that include age, religion or belief, race, sexual orientation, sex, gender reassignment, marriage and civil partnership, pregnancy and maternity, and disability.

No

**Question 17a.** What, in your opinion, would be the likely effects of the Regulations on the Welsh language? We are particularly interested in any likely effects on opportunities to use the Welsh language and on not treating the Welsh language less favourably than English.

N/A

**Question 17b.** Do you think that there are opportunities to promote any positive effects?

Yes, increasing citizen awareness of the regulations to support enforcement activities.

**Question 17c.** Do you think that there are opportunities to mitigate any adverse effects?

Yes, appropriate ring-fenced funding to local authorities for enforcement activities. Best practice networks facilitated by regional OHID officers and additional training and support for smaller businesses in-scope of the regulations (Muir et al, BMC Medicine, 2023; Dhuria et al, under review). Implementing the 2018 NPM as the definition of HFSS and removing exemptions such as baked and unpacked items such as sweets.

**Question 18a.** In your opinion, could the Regulations be formulated or changed so as to have positive effects or more positive effects on using the Welsh language and on not treating the Welsh language less favourably than English?

N/A

**Question 18b.** In your opinion, could the Regulations be formulated or changed so as to mitigate any negative effects on using the Welsh language and on not treating the Welsh language less favourably than English?

N/A

## **Part 2: call for evidence in relation to the consumption of energy drinks by children**

## 1. Health impacts and wider societal concerns

Evidence of the health impacts (both physical and mental) relating to the consumption of energy drinks by children, including qualitative and quantitative evidence and evidence of wider societal concerns for example, but not limited to:

Evidence of links with high-risk behaviours such as alcohol, drug or tobacco use, eating disorders, truancy.

Our research highlights teacher concerns about the harm energy drinks cause their students:

'I had a GCSE student to the point that he was making himself ill by drinking these energy drinks, because he'd have one every morning but not eat anything. And then about mid-day he'd start to feel really ill, and he'd go home. Because he'd have like stomach cramps, he'd get a headache. It would either be the come down from the sugar or it'd be the, there's nothing else in your stomach other than these energy drinks.' [Teacher interview 2]

A number of adolescents spoke of knowing about the negative side-effects of energy drinks. But these did not always prevent them from drinking them:

'I don't find them [energy drinks] that bad. They're just, they just knacker me out basically....They drain me.' [Youth club interview 3]

'If someone buys me one, like I have a sip of it, but then give it away, 'cause....I know what's in them now' [Adolescent focus group 13] Vogel et al, Public Health Nutrition 2023.

Research from Finland has shown that daily intake of energy drinks among 12-18 year olds was associated with headaches, sleeping problems, irritation and tiredness. Furthermore, the study identified that those who consumed energy drinks several times a day were 4.5 times more likely to experience headaches and 3.5 times more likely to report sleeping problems than nonenergy drink consumers. A rapid review of the scientific literature identified that headaches, stomach aches, sleeping problems and hyperactivity were frequently reported as physical consequences associated with energy drink intake among children and adolescents. Moderate doses of caffeine are known to produce enhanced feelings of well-being and improved concentration and energy. However, high caffeine doses have more detrimental physical effects including anxiety, nausea, jitteriness and nervousness. The current caffeine content in a single 500ml serving of energy drink (158mg)<sup>8</sup> exceeds the European recommendations of 3mg/kg body weight for a large proportion of children and adolescents, equating to a high dose of caffeine. The physical effects from caffeine are likely to be compounded by the extremely high sugar content of many energy drinks, where the average sugar content of a single 500ml serving contains 48.5 grams of sugar.<sup>8</sup> This amount is 62% greater than the daily free sugar recommendations for those aged 11 years and over. The safety of energy drinks for children and adolescents can be questioned with a number of acute liver conditions, including non-alcoholic steatohepatitis and acute hepatitis, being linked to high energy drink intake among young adults. These medical conditions likely relate to the high sugar and non-coffee caffeine content, or vitamin toxicity. Furthermore, other substances that are commonly added to energy drinks such as guarana, taurine and ginseng could generate interactions that are currently poorly understood and may intensify health risks or negatively impact on developing cardiovascular and cerebrovascular systems.

Is the evidence you have submitted specific to a particular age group?

Yes: under 18 years old

## 2. Purchasing and consumption behaviours

Evidence of the purchasing and consumption habits of children in relation to energy drinks, for example, compared with other caffeinated products such as tea and coffee.

Using the NDNS data, we have identified that children and adolescents who consumed energy drinks were significantly more likely to have poorer dietary quality than those who did not consume energy drinks (Table 1). A one standard deviation (SD) increase in dietary quality score was associated with being 49% less likely to consume energy drinks (OR 0.51; 95%CI 0.43, 0.60; p<0.001). Poorer dietary quality is characterised by higher intakes of chips, takeaway foods, crisps, white bread, sugary soft drinks and sugar, plus lower intakes of fruits, vegetables, water, nuts/seeds and wholemeal bread. Vogel et al Public Health Nutrition 2023.

We also found that the median daily intake of total energy (kcal/day) among children and adolescents that consumed energy drinks was significantly higher than the median of those that did not (Table 2). The difference in median daily energy intake between these groups was 156 kcal/day. This value is similar to the average energy content of one energy drink serving (176 kcal).<sup>8</sup> Regular consumption of energy drinks, as a component of an unhealthy diet, is likely contributing to the continual rise in obesity levels among adolescents. Currently, 20% of 10-11 year olds and 23% of 11-15 years olds are obese.

There was a significant positive association ( $r=0.2$ ,  $p=0.01$ ) between daily energy intake from energy drinks and total daily energy intake among children and adolescents who reported consuming energy drinks in the NDNS.

During the interviews, teachers described how energy drink consumption by adolescents accompanies poor dietary habits such as frequently eating unhealthy foods or under eating

'their breakfast is a packet of crisps and an energy drink' [Teacher interview 4]

'buying kind of chocolate bars and, like Monster cans and things like that. And, you know, that's, that's their food. That's them looking after themselves' [Teacher interview 4]

'there are a lot of girls that will eat a bit of salad with no dressing.....literally be like cucumber, tomatoes and lettuce. And....a lot of Lucozade, a lot of Red Bull.' [Teacher interview 10]

Placing a ban on the sale of energy drinks to children and adolescents could help those with the poorest diets to make a small but important improvement to their diets, and may help to curb excess energy intake.

Is the evidence you have submitted specific to a particular age group?

Yes: under 18 years old

### 3. Marketing

Evidence on the impact of energy drinks marketing on children within different settings, including online.

Adolescence is a period of transition, with increasing independence and greater sensitivity to social influences. As adolescents mature they obtain greater control over their food choices, and greater financial capacity to enact those decisions away from parental or adult control. Recent research indicates that UK adolescents aged 11-18 years, consumed unhealthy foods such as soft and energy drinks, crisps, chips, chocolates and biscuits significantly more often when they are out of the home and when they are with their friends. These situations contributed additional energy intake up to 101 kcal each time. Being with friends has been cited in the scientific literature as the most common situation when energy drinks are consumed.

The teachers we interviewed raised concerns about the social desirability of energy drinks amongst adolescents.

'it's very cool to have energy drinks, and you can pick up like a can for 30p or whatever, so actually you don't have to have that much money. But if everyone's drinking them, they become a little bit of, sort of, social kudos I would say.' [Teacher interview 2]

We support the adoption of a range of strategies to address the consumption of energy drinks among children and adolescents in addition to a prohibition on sales, including advertising and marketing restrictions. A rapid literature review on energy drink intake among children and adolescents identified that advertising is a key driver of consumption. Advertisements on television, the internet, social media, online videos and games are all used to promote energy drinks. Industry marketing campaigns use humour, sexualised imagery and aspirational lifestyles that appeal to adolescents who are developing their own self-image.<sup>25</sup> Energy drink brands also effectively market their products via sponsorship of sporting and music events that are attended by adolescents and children who can be vulnerable to marketing.<sup>26</sup> Brand loyalty can develop and further drive energy drink intake.<sup>11</sup> Current industry-driven marketing restrictions are limited in their scope and, due to their voluntary nature, are unlikely to be consistently implemented across all brands and all forms of media.

Restrictions on marketing strategies used in retail and food service outlets to promote energy drink purchases should also be considered as part of an overall strategy to curb intake among children and adolescents. Short-term price reductions, meal or purchasing deals, and prominent positioning strategies are used to promote vast quantities of unhealthy food and drink products, including energy drinks. A recent survey of supermarkets found that 43% of all food and drink products located in prominent locations were high sugar products, including energy drinks.

Such practices in smaller food retailers and budget retail outlets are likely to be even worse, with evidence from the UK showing these smaller stores have less healthy in-store environments than large supermarkets.<sup>28</sup> Restrictions on marketing and advertising in the form of government regulation, will limit the competitive advantage these practices offer and create a level playing field for all companies.

Some of the adolescents we interviewed identified the high price of branded energy drinks as a barrier to them being purchased.

'Too expensive. Not worth a quid for a like a can of that [energy drink] when you can get a bottle like that for like a quid, of coke.' [Youth club interview 4]

The sugar levy introduced this year encompasses energy drinks. In cases where the tax has been passed onto the consumer, it may provide an additional barrier to energy drink consumption. However, it is likely to have a more limited effect on older adolescents who have started earning money. While the sugar levy has been shown to have prompted some reformulation of sugar levels in energy drink and may have triggered growth in sugar-free varieties of energy drinks, caffeine levels have not been reduced.<sup>8</sup> A levy on high caffeine single serve drinks, or the introduction of a legal limit could be explored.

Is the evidence you have submitted specific to a particular age group?

Yes: under 18 years old

#### 4. Operability

Evidence on the impact of voluntary bans to the sale of energy drinks to under 16 year olds implemented by some food retailers.

A review of published qualitative studies investigating energy drink consumption indicate that energy drinks are readily available to children and adolescents. They report buying energy drinks from convenience stores or supermarkets with ease, obtaining them free from sponsored events or being given them by friends, siblings and parents. During our interviews, adolescents described that the voluntary bans in place in food retail outlets do not prevent them from being sold energy drinks.

'they brang out that law like a couple of years ago didn't they, that they weren't allowed to sell energy drinks and they still do. They still sell them to me, and I'm only fourteen, nearly.' [Youth club interview 3]

Adolescents also felt that profits were more important to some businesses than following the voluntary bans to sell energy drinks to children and adolescents.

'Not being funny, I don't think they care, 'cause at the end of the day they're getting money, yeah.' [Youth club interview 3]

The adolescents and teachers we spoke to reported that voluntary bans in schools had limited effectiveness on reducing energy drink intake.

'Erm, we're not allowed fizzy drinks or energy drinks.'

'Yeah, you're not allowed energy drinks.'

'[students] hide it.'

'Yeah they hide it, still bring it in'. [Youth club interview 3]

'I know quite a few of them still have Lucozade though.'

'They do keep, they hide it in their bags very well....'

'Red Bull and....'

'Yeah, other energy drinks.' [Teacher focus group 13]

Adolescents and teachers told us that parents' levels of control over adolescent energy drink intake were not consistent.

'I like Rockstar. It's the only thing I drink.'

'....My mum doesn't let me have them.'

'Really?'

'Why not'

'My mum don't care'

'She said they're bad for me.' [Adolescent focus group 13]

'....there's nothing else in your stomach other than these energy drinks....and mum had no idea that that's what he was drinking every morning' [Teacher interview 1]

Introducing a prohibition on the sale of energy drinks to children and adolescents would support teachers and parents. It would provide a clear message that these drinks are not suitable for those aged under 18 years and hinder the ease of accessibility children and adolescents currently have to these drinks.

##### 4a. Operability

Evidence on the approaches to enforcement, including how other countries have approached enforcement within different settings, including online.

N/A

## 5. Economic impact

Evidence of the costs to society of energy drink consumption by children.

Consuming energy drinks has been associated with clustering of poor health behaviours. In particular, tobacco and alcohol use have been shown repeatedly to be higher among energy drink consumers. Adolescents who mix alcohol with energy drinks consume more alcohol and report feeling more intoxicated than those consuming only alcohol. It is believed that energy drinks facilitate alcohol intake through their caffeine content which reduces fatigue and provides stimulation, further prompting risk-taking activities such as binge drinking, drink driving, violence and unprotected sexual intercourse.<sup>36</sup> Consuming energy drinks has also been associated with sensation-seeking and self-destructive behaviours, as well as behavioural regulation issues. Introducing a prohibition on the sale of energy drinks to children and adolescents is likely to serve a dual benefit of addressing poorer dietary and risk-taking behaviours that are costly to individuals and to society.

## 6. Impact of the consumption of energy drinks on different groups

Evidence of how the following groups of children are impacted by the consumption of energy drinks.

### 6a. Those in lower socio-economic groups.

Energy drinks are consumed more frequently among children and adolescents from disadvantaged backgrounds. We fully support the prohibition on selling energy drinks to children and adolescents aged under 18 years of age to help address inequalities in diet and health.

Our analysis of the NDNS data, identified that children and adolescents from more deprived neighbourhoods consumed energy drinks significantly more frequently than those from more affluent neighbourhoods (Table 4). Disadvantage was measured using the Index of Multiple Deprivation (IMD) quintile. A one quintile increase in IMD was associated with being 41% more likely to consume energy drinks (OR 1.41; 95%CI 1.17, 1.69; p<0.001). Similarly, we found that adolescents living in households with lower annual household income were significantly more likely to consume energy drinks than those living in household with a greater annual income (Vogel et al Public Health Nutrition 2023). An increase of £1000 in household income was associated with being 3% less likely to consume energy drinks (OR 0.97; 95%CI 0.96, 0.98; p<0.001).

Of grave concern, we identified that the difference in energy drink intake among children and adolescents, according to level of neighbourhood deprivation is increasing. These results show that energy drink intake among individuals living in the most deprived neighbourhoods notably increased between 2008 and 2016, while, over the same time period, energy drink intake among those from the most affluent neighbourhoods reduced. (Vogel et al PHN 2023)

Obesity is an indicator of poor-diet and as we outlined above the children and adolescents who are consuming the greatest quantity of energy drinks are those with the poorest quality diets. Systematic reviews have shown that interventions providing information about healthy dietary behaviours alone are largely ineffective among disadvantaged populations and that social marketing campaigns, such as '5-a-day', can lead to increases in dietary inequalities.<sup>38 39</sup> These reviews serve as evidence for why solely raising awareness of the dangers of energy drink consumption among children and adolescents would be inadequate. While evidence for interventions that are effective among disadvantaged groups, particularly adolescents, is limited, those addressing the broader environmental determinants of diet are most promising.

Banning the sale of energy drinks to children and adolescents under 18 years of age offers the potential to support those with the poorest diets, and the highest energy drink intake, to make a small but important improvement to their diets that could help to reduce health inequalities.

Is the evidence you have submitted specific to a particular age group?

Yes: under 18 years old

## 6b. Those with protected characteristics, as set out within the Equality Act 2010.

The prohibition on selling energy drinks to children and adolescents aged under 18 years of age from all retail, online, food-service outlets and vending machines would help to protect the health and development of children and adolescents. There is evidence from the broader scientific literature that energy drink intake is patterned by gender, with boys more likely to consume energy drinks than girls and more likely to consume greater quantities. Our analyses of the NDNS data, however, identified no difference in energy drink intake by sex for the age groups 1-18 years ( $p=0.9$ ), 11-15 years ( $p=1.0$ ) or 16-18 years ( $p=0.8$ ). Studies examining differences in energy drink consumption among children and adolescents according to race have shown no clear associations. No differential effects would be expected from the prohibition on selling energy drinks according to race, religion, sexual orientation, disability, gender reassignment or marriage/civil partnership.

### Is the evidence you have submitted specific to a particular age group?

Yes: under 18 years old

## Submit your response

You are about to submit your response. Please ensure you are satisfied with the answers you have provided before sending.

Name	Professor Christina Vogel (a,b), Dr Sarah Muir (b), Preeti Dhuria (b), Professor Melanie Luhrmann (c), Dr Britta Augsburg (d))
Organisation (if applicable)	a) Centre for Food Policy, City St George's University of London (UoL); b) University of Southampton; c) Royal Holloway UoL; d) Institute for Fiscal Studies
Telephone number (optional)	-
Address (optional)	-

If you want to receive a receipt of your response, please provide an email address.

Email address

christina.vogel@city.ac.uk

DOI: 10.5258/SOTON/PP0071