

Number: WG51191

Welsh Government

Response to the call for evidence in relation to the consumption of energy drinks by children – Summary of Responses.

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

Summary of responses and Welsh Government response

Date of issue: 23 December 2024

#### Overview

This document provides a summary of responses to our call for evidence on energy drink consumption in children, which formed part 2 of <u>proposals to make the food environment healthier</u>, published on 1 July 2024.

# **Action required**

This document is for information only.

#### Further information and related documents

Large print, braille and alternative language versions of this document are available on request.

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This document is also available in Welsh: <u>Cynigion i wneud yr amgylchedd bwyd yn iachach | LLYW.CYMRU</u>

# **Additional copies**

This summary of response and copies of all the consultation documentation are published in electronic form only and can be accessed on the Welsh Government's website.

ISBN: 978-1-83715-038-0

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# Introduction

On 1 July 2024, the then Cabinet Secretary for Health and Social Care, now the First Minister, published a call for evidence on the consumption of energy drinks by children.

The full text of the call for evidence is available at:

Proposals to make the food environment healthier | GOV.WALES

# Methodology

In total, 46 responses to the call for evidence were submitted. The consultation response forms were available in Welsh and English, and individuals were able to respond in their preferred language. Responses were split between the two languages as follows:

Language	Number of responses
Welsh	0
English	46

Respondents were able to respond using the Welsh Government's call for evidence webpage or download a response form and submit it to a designated electronic mailbox.

Method of submission	Number of responses
Responses submitted online	25
Responses submitted via email	21

A breakdown of the number of responses received by respondent type is set out below:

Sector	Total number of responses received
Members of the public	10
Businesses/Trade Associations	09
Local Government / Health Boards /	06
Public Sector	
Health Organisations / Charities and	16
Academics	
Other/anonymous	05

Guidance provided by the Welsh Government outlined specific areas of interest for respondents to address. It was not mandatory for respondents to provide evidence

for each area. Instead, respondents were encouraged to share their insights and knowledge on topics where they had relevant expertise.

Specific areas of interest were set out as below:

# Questions to support responses to the call for evidence

# 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.

# 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.

# 3 Marketing

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

# 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.

### 4a **Operability**

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

# 5 **Economic impact**

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

- 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.
- 6b Those with protected characteristics, as set out within the Equality Act 2010.
- 6c | Those living in rural areas.
- 6d | Those living in urban areas.

# Report Structure

The response document adopts the following structure based on the overarching themes we set out for respondents:

- Health impacts and wider societal concerns
- Purchasing and consumption behaviours
- Marketing
- Operability
- Economic impact
- Impact of the consumption of energy drinks on different groups

Table summaries of responses by sector have been provided along with a narrative summary of the evidence and views submitted by respondents.

It is not the intent, or would it be possible, to reflect every comment received in this response document. The purpose is to present an overview of the views and evidence gathered.

# Summary of responses

# 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.

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# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	5
Businesses/Trade Associations	4
Local Government / Health Boards /	4
Enforcement	
Health Organisations / Charities and	9
Academics	
Other/anonymous	3

A range of evidence was submitted in relation to this area of interest. The majority of respondents submitted evidence relating to the potential negative health and societal impacts associated with energy drink consumption. These negative impacts related to both the sugar and caffeine content of energy drinks. The most frequently cited academic evidence was a systematic review, published earlier this year by researchers from Fuse, the Centre for Translational Research in Public Health, at Teesside University and Newcastle University. This study links energy drink consumption by children with a range of mental and physical health concerns as well as wider societal concerns such as low academic performance and health damaging behaviours such as substance misuse<sup>1</sup>. The majority of additional evidence submitted by respondents supported the conclusions of this research.

Common areas of focus within responses were the impact of energy drink consumption on children's oral health and their ability to maintain a healthy weight<sup>2,3,4,5</sup>. Responses also highlighted concerns around the number of children drinking energy drinks across Wales, citing, for example, data from the School

<sup>&</sup>lt;sup>1</sup> Lake et. al (2024), 'Consumption of energy drinks by children and young people: a systematic review examining evidence of physical effects and consumer attitudes', Public Health, 227 (2024), pp. 274-28: <a href="https://www.sciencedirect.com/science/article/pii/S0033350623003189">https://www.sciencedirect.com/science/article/pii/S0033350623003189</a>

<sup>&</sup>lt;sup>2</sup> Nguyen M, Jarvis SE, Tinajero MG, Yu J, Chiavaroli L, Mejia SB, Khan TA, Tobias DK, Willett WC, Hu FB, Hanley AJ, Birken CS, Sievenpiper JL, Malik VS. Sugar-sweetened beverage consumption and weight gain in children and adults: a systematic review and meta-analysis of prospective cohort studies and randomized controlled trials. Am J Clin Nutr. 2023 Jan;117(1):160-174. doi: 10.1016/j.ajcnut.2022.11.008. Epub 2022 Dec 20. PMID: 36789935.

<sup>&</sup>lt;sup>3</sup> Clapp O, Morgan MZ, Fairchild RM. The top five selling UK energy drinks: implications for dental and general health. Br Dent J. 2019 Apr;226(7):493-497. doi: 10.1038/s41415-019-0114-0.

<sup>&</sup>lt;sup>4</sup> Margaritis V, Alaraudanjoki V, Laitala ML, Anttonen V, Bors A, Szekely M, Alifragki P, Jász M, Berze I, Hermann P, Harding M. Multicenter study to develop and validate a risk assessment tool as part of composite scoring system for erosive tooth wear. Clin Oral Investig. 2021 May;25(5):2745-2756.

<sup>&</sup>lt;sup>5</sup> Public Health England. (2015). Sugar reduction: The evidence for action. Public Health England website: https://www.gov.uk/

Health Research Network 2020<sup>6</sup> and 2021/22<sup>7</sup>. Higher consumption rates of energy drinks were reported amongst boys, older children and those from lower socioeconomic groups.

Responses from the food and drink industry typically pointed to there being a lack of robust and reputable evidence in relation to the health harms of energy drinks for children. Evidence cited by these respondents to support this position included the scientific opinion published by the European Food Safety Authority in 2015 on the safety of caffeine<sup>8</sup> and a statement issued by the UK Food Standard Agency's (FSA) Committee on Toxicity in 2019 on the potential risks of energy drinks to children and adolescents<sup>9</sup>. Respondents stated that the views expressed by both bodies did not justify treating energy drinks any differently to other caffeinated substances. Some respondents also made reference to Scottish Government's decision not to take forward regulatory restrictions on the sale of energy drinks as they felt the evidence base to support mandatory measures was not 'sufficiently developed'<sup>10</sup>.

Some members of the public shared their views around the case for introducing regulations to restrict the sale of energy drinks to children in response to this area of interest. These views were mixed with some respondents stating their opposition to Government intervention in this area. Conversely, views from health professionals were largely supportive of legislative measures.

# Health impacts and wider societal concerns: extracts from responses

#### Health organisations/charities and academics

Drinking energy drinks is associated with an increased risk of mental health issues among children and young people, including anxiety, stress, depression, and suicidal thoughts.

Regular consumption of energy drinks has been linked to chronic health conditions in children, including obesity, type 2 diabetes, and dental decay.

High sugar content in energy drinks is a significant factor in the rising rates of childhood obesity and related health issues, which contribute to escalating healthcare costs.

#### Local Government / Health Boards / Enforcement

Energy drink consumption remains relatively high among Welsh secondary school students. Older adolescents, particularly those aged 14-16, were more likely to consume energy drinks regularly.

Young people and their parents described energy drinks as unhealthy; addictive; and making it difficult to fall asleep.

<sup>&</sup>lt;sup>6</sup> The School Health Research Network, 2020. Health and Wellbeing Survey 2019/20 National Data - School Health Research Network (shrn.org.uk)

<sup>&</sup>lt;sup>7</sup> Student Health and Wellbeing in Wales: Report of the 2021/22 Health Behaviour in School Aged Children and School Health Research Network (SHRN) Health and Wellbeing Survey (2021).

<sup>8</sup> Scientific opinion on the safety of caffeine – EFSA (2015) <u>Safety of caffeine | EFSA (europa.eu)</u>

Statement on the potential risks from "energy drinks" in the diet of children and adolescents – UK FSA (2019) Energy drinks statement (food.gov.uk)
 Scottish Government. Ending the sale of energy drinks to children and young people: a consultation.

<sup>&</sup>lt;sup>10</sup> Scottish Government. Ending the sale of energy drinks to children and young people: a consultation. https://consult.gov.scot/health-and-social-care/ending-the-sale-of-energy-drinks/

Energy drink consumption among children and young people is linked with risky behaviours such as substance use, violence, and unsafe sex and social outcomes such as truancy and low academic performance.

Some young people aged 10 to 18 years were concerned about the impact on the environment, having seen discarded cans in their area.

# Businesses / Trade Associations

Energy drinks pose no particular risk for children and adolescents. A substantial body of scientific and medical literature demonstrates that:

- (1) children and adolescents experience no particular or unique safety effects from caffeine.
- (2) after infancy, caffeine-dose response is a function of body weight (mg/kg), not age.

Norwegian Scientific Committee for Food and Environment rejected the proposed agebased restrictions on the sale of energy drinks.

Minister for Public Health and Women's Health declared that the Scottish Government would not pursue mandatory measures to limit the sale of energy drinks to children and young individuals. This choice was made after thorough examination of the feedback from a 2020 public consultation and assessment of the existing evidence. The consultation responses underscored the insufficient scientific evidence supporting restrictive actions against energy drinks, and the absence of credible proof of adverse effects from energy drink consumption in children and adolescents.

# Members of the Public and Other / Anonymous

Nothing to do with the Welsh Government.

Restrictions exerted control over people and their freedom of choice.

Energy drinks impact energy and behaviour.

# 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.

# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	2
Businesses/Trade Associations	6
Local Government / Health Boards /	5
Enforcement	
Health Organisations / Charities and	3
Academics	
Other/anonymous	1

Most respondents stated they felt energy drinks were purchased and consumed by children and young people more than other caffeinated drinks. One respondent cited evidence which found that up to a third of children in the UK consume caffeinated energy drinks on a weekly basis and that young people in the UK were the biggest consumers of energy drinks in Europe for their age group<sup>11</sup>. Other anecdotal and academic evidence submitted by respondents in relation to this area of interest most commonly centred around the impact of marketing on energy drink consumption. Respondents regularly stated that they felt the branding and marketing of energy drinks influenced children and young people's consumption choices, particularly marketing on social media platforms. One local health board drew on local insight and published evidence 12 to highlight how branding and marketing influence young people's consumption choices. The respondents described anecdotally that pupils purchase and drink energy drinks on their way to school as well as at sports clubs. It was also suggested that the accessibility and affordability of energy drinks are central in shaping purchasing and consumption behaviours.

In addition, respondents referred to observations in children's behaviours and direct links to energy drink consumption. Data from the School Health Research Network 9 was cited to highlight a connection between social deprivation and energy drink consumption. Several responses also cited research highlighting gender differences in consumption habits in Wales. For example, a survey of children in Wales found that young people who identified as neither a boy or a girl were three times more likely than those who identify as a boy or as a girl (both) to report at least daily

Fuse Brief Evidence shows wider range of risks associated with energy drinks in children.pdf (fuse.ac.uk)
 UNICEF Child Rights-Based Approach to Food Marketing. A Guide for Policy Makers Child Rights-Based Approach to Food Marketing | UNICEF

consumption of energy drinks<sup>13</sup>. Other comments drew on evidence to highlight differences in the rates of energy drink consumption between boys and girls<sup>14</sup>.

Most responses from the food and drink industry felt that there was insufficient evidence to support the view that children's consumption habits are significantly different for energy drinks compared with other caffeinated products such as tea and coffee. These responses cited UK House of Commons Science and Technology Committee's conclusions on energy drinks in 2018<sup>15</sup>, the views expressed by Scottish Government in 2023<sup>16</sup> and industry data on the consumption of energy drinks by children<sup>17,18</sup>.

### Purchasing and consumption behaviours: extracts from responses

# **Business / Trade Associations**

Energy drinks are easily accessible to learners and priced cheaply so that they are affordable to young individuals.

Portion control is a recognised and significantly operative measure for promoting moderate consumption of sugar and caffeine in children.

Alternative solutions exist to address concerns about excess caffeine. Encouraging portion size restrictions for caffeine and sugar containing beverages would be an effective solution.

### Local Government / Health Boards / Enforcement

Branding and marketing influence young people's consumption choices, with awareness of possible negative effects being low.

Anecdotal evidence that children are drinking them [energy drinks] at sports clubs outside of school. Additionally, there are reports of an increase by primary school age children consuming them before and after school including popular brands that are promoted on social media aimed at children and young people.

Children are purchasing caffeinated drinks on the way to school and to support performance in sports during leisure time.

Head teachers report observed differences in children's behaviour linked to the consumption of energy drinks, including behavioural issues, hyperactivity.

Accessibility and affordability of energy drinks contribute to their widespread use among young people. Many adolescents indicated that they chose energy drinks because they are cheaper than other drinks.

<sup>&</sup>lt;sup>13</sup> Student Health and Wellbeing in Wales: Report of the 2021/22 Health Behaviour in School Aged Children and School Health Research Network (SHRN) Health and Wellbeing Survey (2021).

<sup>&</sup>lt;sup>14</sup> Ajibo C, Van Griethuysen A, Visram S, Lake AA. Consumption of energy drinks by children and young people: a systematic review examining evidence of physical effects and consumer attitudes. Public Health. 2024 Feb;227:274-281. doi: 10.1016/j.puhe.2023.08.024. Epub 2024 Jan 15. PMID: 38228408.

<sup>&</sup>lt;sup>15</sup> Effects of consumption on children – UK House of Commons Science and Technology Committee (2018) <u>Energy drinks and children - Science and Technology Committee - House of Commons (parliament.uk)</u>

children - Science and Technology Committee - House of Common Quantum (particular).

16 Scottish Government. Ending the sale of energy drinks to children and young people: a consultation. 
https://consult.gov.scot/health-and-social-care/ending-the-sale-of-energy-drinks/

<sup>&</sup>lt;sup>17</sup> Kantar Worldpanel, Purchase Combined Panel, Volume Sold to 13-19, 52 weeks ending 9 July 2023

<sup>&</sup>lt;sup>18</sup> EFSA Gathering consumption data on specific consumer groups of energy drinks <u>Gathering consumption data on specific consumer groups of energy drinks | EFSA (europa.eu)</u>

# Health Organisations / Charities and Academics

Energy drinks have become the fastest growing sector of the soft drink market, and energy drinks companies have increasingly targeted young people with even higher caffeine content drinks, putting more of them at risk.

Higher consumption rates were found among older children and those from a low socioeconomic background.

Local insight indicates that schools do not permit pupils to drink energy drinks on the premises. Pupils, however, purchase energy drinks on their way to school and drink them before coming into school.

Local shops selling energy drinks to children.

# Members of the public and Other / Anonymous

Easily accessible to learners and priced cheaply so that they are affordable to young individuals.

# Marketing

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

# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	3
Businesses/Trade Associations	5
Local Government / Health Boards /	5
Enforcement	
Health Organisations / Charities and	3
Academics	
Other/anonymous	1

The majority of respondents felt that the way energy drinks are marketed increases their appeal to children and young people, especially marketing online. For example, one health board cited research that indicated a link between exposure to branding influences what and how much children drink and stated that the images used to market energy drinks appeal specifically to adolescents<sup>19</sup>. Another health board who carried out consultation sessions with children and parents in 2022 reported that parents were being pestered to purchase energy drinks by their children (some as young as five). Anecdotal evidence provided also suggests that high street advertising spaces are used to market high caffeine energy drinks. This was reported to be viewed as unhelpful by communities.

Respondents from the food and drink industry stated that energy drinks are not marketed towards children and pointed to voluntary action undertaken by industry not to promote or sell energy drinks to under 16s. For example, responses pointed to the British Soft Drinks Association code of practice which sets out marketing restrictions for energy drinks<sup>20</sup>. Responses also highlighted that energy drinks with a high sugar content will already be within scope of Advertising Standards Authority rules in relation to the advertising of food and soft drinks high in fat, sugar or salt to children within broadcast and non-broadcast media.

<sup>&</sup>lt;sup>19</sup> Bunting, H., et al. (2013). Adolescent and young adult perceptions of caffeinated energy drinks: A qualitative approach. Appetite, 65(1), 132-138.

<sup>20</sup> Code of Practice for the Dispense of Soft Drinks by Pressure Systems (britishsoftdrinks.com)

#### Marketing: extracts from responses

# Health Organisations / Charities and Academics

Teenagers are the main target group for energy drinks<sup>21</sup>.

High caffeine energy drinks are regularly advertised in bus shelters and standalone spaces.

#### Local Government / Health Boards / Enforcement

Children tend to be exposed to marketing more than adults and children in groups with lower socio-economic status tend to be exposed to greater degrees of marketing<sup>22</sup>.

UNICEFs report 'A Child Rights-Based Approach to Food Marketing' highlights the harm caused by the marketing of unhealthy drinks<sup>23</sup>.

Continued growth in consumption of energy drinks means that the proposed ban on sales to <16s will need further reinforcement through additional action on marketing and advertising, education and labelling in order to protect as many children as possible.

### Other/ Anonymous

Marketing aimed at children and young people.

Marketing geared towards children online.

#### **Business / Trade Associations**

Under advertising rules, energy drinks are treated as any other food product. There are no legal restrictions surrounding their being advertised beyond general consumer and food law.

[...]members have taken meaningful steps to be clear about the suitability of energy drinks and label all high-caffeine soft drinks as not recommended for children. Our members do not market or promote the sale of energy drinks to under-16s.

[Polling of independent retailers shows a significant increase in the number of stores operating voluntary age restriction sales policy for the sale of energy drinks. While it varies from store to store, the main options used by independent retailers range from restricting the sale to a certain age, restricting the quantity of drinks sold, or not selling energy drinks to young people in uniform.

<sup>&</sup>lt;sup>21</sup> Fairchild RM, Broughton D, Morgan MZ. Knowledge of and attitudes to sports drinks of adolescents living in South Wales, UK. Br Dent J. 2017 Jun 23;222(12):931-935. doi: 10.1038/sj.bdj.2017.542.

<sup>&</sup>lt;sup>22</sup> UNICEF Marketing of unhealthy foods and non-alcoholic beverages to children

https://www.unicef.org/media/116691/file/Marketing%20restrictions.pdf

23 UNICEF Child Rights-Based Approach to Food Marketing. A Guide for Policy Makers Child Rights-Based Approach to Food Marketing | UNICEF

# Operability

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

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# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	1
Businesses/Trade Associations	3
Local Government / Health Boards /	4
Enforcement	
Health Organisations / Charities and	2
Academics	
Other/anonymous	1

Some respondents stated that voluntary bans on the sale of energy drinks to children were ineffective and that retailers were only willing to engage when enforcement strategies were applied. They felt this reluctance was primarily due to the high costs associated with staff training and the development of in-store materials. Some respondents drew on published evidence to show that sales of energy drinks decreased following implementation of a voluntary ban<sup>24</sup>. It was also suggested that family based voluntary bans (local parents asking retailers not to sell some products to their children when they frequent the shop) could have a role to play within retail premises.

Responses from businesses and trade associations stated that if Welsh Government decide to bring forward legislation to restrict the sale of energy drinks to children, aligning this with current voluntary bans by retailers on the sale of energy drinks to under 16s and the British Soft Drinks Association's code of conduct would support the operability of restrictions. Respondents also stated that Welsh Government would need to provide enforcement bodies with additional resourcing before taking forward regulatory to restrictions. This, combined with age restrictions and an effective communication strategy to inform children and parents of the possible negative impacts of energy drinks consumption in children was observed to be an effective approach within some responses.

Whilst most respondents advocated for any future regulatory restrictions to apply to the sale of energy drinks through vending machines, respondents also stressed the need for Welsh Government to consider the operability of this due to the difficulty of monitoring vending machine sales.

<sup>&</sup>lt;sup>24</sup> World Health Organization (WHO). (2018). Obesity and Overweight Factsheet. WHO Report.

# Operability: extracts from responses

### Other / Anonymous

No evidence to demonstrate the impact of voluntary bans on the sale of energy drinks within the local community.

#### Businesses / Trade Associations

Well-planned communication and a 12-month implementation period.

Age Restriction should be set at 16 which would be consistent with the voluntary age restriction many convenience retailers have already introduced.

Introducing a voluntary ban implies that there is a health-related risk which there is not. As outlined above, EFSA, the COT, and similar devolved or foreign institutions all reached the conclusion that energy drinks should not be treated separately to coffee or other caffeinated beverages.

# Local Government / Health Boards / Enforcement

Retailers will not engage unless it is enforced due to potential high costs for them.

A report noted a significant decrease in energy drink sales to adolescents in stores that implemented voluntary bans<sup>25</sup>. This aligns with evidence from other voluntary age-related sales restrictions, such as those for alcohol and tobacco, which have similarly shown effectiveness in reducing access among underage consumers<sup>26</sup>.

Existence of family based voluntary bans within retail premises (local parents asking retailers not to sell some products to their children when they frequent the shop).

#### Health Organisations / Charities and Academics

For a ban to be effective it should apply to all food and drink sales outlets, including online sales and restaurants. [The health organisation] recommends that the ban on sales of energy drinks to children includes all healthcare premises and would welcome clear and consistent messaging for the ban on the sale of energy drinks to <16s across all retail settings and online environments.

A ban should also apply to vending machines.

<sup>&</sup>lt;sup>25</sup> Public Health England. (2018). Energy drinks and young people: A report on public health implications and policy responses. Public Health England Report.

<sup>&</sup>lt;sup>26</sup> Richards, G., & Smith, A. P. (2016). Energy drinks and their effects on mental health in young people: A comprehensive review. Journal of Psychology, 150(3), 184-194.

# Economic impact

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

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# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	0
Businesses/Trade Associations	0
Local Government / Health Boards /	4
Enforcement	
Health Organisations / Charities and	1
Academics	
Other/anonymous	1

Limited evidence was received in relation to this area of interest. One response referenced The World Health Organisation's estimate of the economic burden of obesity-related conditions in the UK<sup>27</sup> in relation to the possible economic impact energy drink consumption in children could have. Another response cited the costs resulting from treatment for dental disease for children, which they suggested could arise as a result of children consuming energy drinks. The respondent indicated these costs would also come at a cost to families who would have to take time off work to accompany children to appointments and pay for travel to appointments.

### Economic impact: extracts from responses

# Local Government, Health Board and Enforcement

Wider costs are yet to unfold. Major impact on health and wellbeing.

Impacts economic productivity.

Regular consumption of energy drinks has been linked to chronic health conditions in children, including obesity, type 2 diabetes, and dental decay. High sugar content in energy drinks is a significant factor in the rising rates of childhood obesity and related health issues, which contribute to escalating healthcare costs<sup>16</sup>.

#### Health organisations / charities and academics

The societal costs of dental disease in children are considerable. In 2022/23, 3,362 children in Wales needed a general anesthetic for the removal of carious teeth. Thousands more require treatment from the general or community dental services. Dental disease is also associated with other family costs such as travel costs and the need to take time off work to accompany children to appointments.

<sup>&</sup>lt;sup>27</sup> World Health Organisation (WHO). (2018). Obesity and Overweight Factsheet. WHO Report.

# 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:

- Those in lower socio-economic groups
- Those with protected characteristics, as set out within the Equality Act 2010
- Those living in rural areas

-	Those	livina	in	urban	areas
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# Summary of respondents by sector:

Sector	Total number of responses received
Members of the public	0
Businesses/Trade Associations	0
Local Government / Health Boards /	3
Enforcement	
Health Organisations / Charities and	3
Academics	
Other/anonymous	1

Responses to this section largely shared evidence which points to a connection between socio-economic status and energy drink consumption<sup>28,29,30</sup>. For example, responses from a local health board referred to a UK study which reported a significant association between consuming energy drinks once a week or more and being eligible for free school meals<sup>31</sup>. Respondents also highlighted a correlation between local authorities where energy drink consumption by children ages 11-16 is highest and levels of deprivation within one area of Wales. A further response indicated they viewed the higher levels of consumption observed in deprived areas to be the result of more marketing of energy drinks in these areas, coupled with the affordability of the drinks compared to healthier options.

There was recognition from several respondents that energy drink consumption clusters with other unhealthy eating behaviours and that energy drink consumers have poorer quality diets, higher daily energy intake and a larger BMI<sup>32</sup>.

<sup>&</sup>lt;sup>28</sup> Inequalities in energy drink consumption among UK adolescents: a mixed-methods study' – Vogel, C, et.al, 2022. Available at: <a href="https://pubmed.ncbi.nlm.nih.gov/36472075/">https://pubmed.ncbi.nlm.nih.gov/36472075/</a>

<sup>&</sup>lt;sup>29</sup> Sugar-sweetened beverage consumption from 1998-2017: Findings from the health behaviour in school-aged children/school health research network in Wales – Morgan, K., et.al. 2021. PLoS ONE journal. Available at: https://iournals.plos.org/plosone/article?id=10.1371/journal.pone.0248847

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0248847

30 Vogel C, Shaw S, Strömmer S, et al. Inequalities in energy drink consumption among UK adolescents: a mixed-methods study Public Health Nutrition 2023;26(3):575-585, doi:10.1017/S1368980022002592

study. Public Health Nutrition. 2023;26(3):575-585. doi:10.1017/S1368980022002592.

31 Richards G, Smith AP. A Review of Energy Drinks and Mental Health, with a Focus on Stress, Anxiety, and Depression. J Caffeine Res. 2016 Jun 1;6(2):49-63. doi: 10.1089/jcr.2015.0033. PMID: 27274415; PMCID: PMC4892220.

<sup>&</sup>lt;sup>32</sup> Welsh Oral Health Information Unit. Picture of Oral Health 2023. Dental epidemiological inspection of school year one (5-year-old) children in Wales 2022/23. <a href="https://www.cardiff.ac.uk/">https://www.cardiff.ac.uk/</a> data/assets/pdf file/0006/2792535/Picture-of-Oral-Health-2022-23-Year-1-report-ENG.pdf

# <u>Impact of the consumption of energy drinks on different groups: extracts from responses</u>

### <u>Local Government / Health Boards / Enforcement</u>

There is a correlation between the local authorities where energy drinks consumption by persons aged 11-16 is highest and the levels of deprivation.

Correlation between energy drink consumption and socioeconomic status. Students from more deprived areas in Wales were more likely to consume energy drinks, potentially due to targeted marketing in these areas and the affordability of these drinks compared to healthier options, reflecting the broader issue of choice and affordability of drink choices in economically disadvantaged areas, compared to accessibility of healthier options.

Consumption of energy drinks increased with age and decreased with affluence. As there is a strong relationship between household income/affluence and obesity, energy drinks could therefore be a factor in increasing health inequalities.

### Health Organisations / Charities and Academics

Energy drink consumers have poorer quality diets, higher daily energy intake and larger BMI.

Dental caries has a similar social gradient to that of energy drink consumption, the prevalence of decay is much higher in deprived children than their more affluent counterparts.

# Age ranges the evidence submitted applies to

The call for evidence asked respondents to clarify whether the evidence submitted was specific to children under 18 or under 16. The following table provides a breakdown of responses to this question for each of the areas we asked for evidence on. Figures for those who did not indicate a response have not been included in the table summary.

	Under 16s	Under 18s	Not sure	No
Health impacts and wider societal	6	6	3	2
concerns				
Purchasing and consumptions	10	6	1	2
behaviours				
Marketing	5	6	4	2
Operability and economic impact	1	0	2	0
Impact on the consumption of	9	3	2	1
energy drinks on different groups				

# Welsh Government response

The Welsh Government is grateful to everyone who responded to the call for evidence. As a summary document, not all views and evidence outlined in responses may have been reflected fully, but each response has been considered carefully. The absence of evidence or views in this summary does not mean they have been disregarded.

We received a range of responses – particularly in relation to the possible health and wider societal impacts of energy drink consumption by children. Many responses also took the opportunity to offer their views on Welsh Government's 2022 consultation proposal to restrict the sale of energy drinks to children. Whilst health professionals were largely supportive of government action in this area, we also note the concerns raised by the food and drink industry and some members of the public.

We will consider all views and evidence submitted through this exercise to inform next steps in relation to this area of work. An update on our intended way forward will be issued in due course.