

## MRC/CSO Social and Public Health Sciences Unit Consultation Response

<b>Title of consultation</b>
Youth vaping: call for evidence
<b>Name of the consulting body</b>
Office for Health Improvement and Disparities, UK Government
<b>Link to consultation</b>
<a href="https://www.gov.uk/government/consultations/youth-vaping-call-for-evidence">https://www.gov.uk/government/consultations/youth-vaping-call-for-evidence</a>
<b>Our consultation response</b>
<p><b>1. Do you have any evidence to provide on building regulatory compliance?</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> <p><b>2. What evidence is there about how and where children are accessing vapes?</b></p> <p>The sale of tobacco and e-cigarettes to people under the age of 18 is an offence, however, research has shown youths accessing vapes from a variety of sources. Recent research by Smith et al. [1] highlights that youths (11-16 years) are often purchasing/accessing vapes in corner shops and online via social media. Youths in the study [1] discussed the ease of being able to purchase vapes at corner shops, however, if they were to enter the same shop and attempt to purchase an energy drink, they would be challenged for being underage. Similarly, youths discussed [1] being able to access content on social media which tells viewers the methods used by companies to conceal vapes in purchases (e.g., hiding the vape in a secret compartment in the packaging when buying makeup). Research [2] by Action on Smoking and Health (ASH) Scotland illustrated youths (11-17 years) most commonly bought e-cigarettes from shops. The next most common source was being given them, followed by online purchases [2].</p> <p>[1] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study <i>BMJ Open</i> 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466  [2] Action on Smoking and Health Use of e-cigarettes (vapes) among young people in Great Britain (2022) <a href="https://ash.org.uk/uploads/Use-of-e-cigarettes-among-young-people-in-Great-Britain-2022.pdf">https://ash.org.uk/uploads/Use-of-e-cigarettes-among-young-people-in-Great-Britain-2022.pdf</a></p> <p><b>3. What evidence is there of the type of products children are accessing?</b></p> <p>Disposable e-cigarettes retail for around £5–£7 (US\$7–US\$9) in the UK—about half the price of a pack of 20 cigarettes [1]. In Great Britain, data captured in 2022, found that disposable e-cigarettes have become the most common device type (52.0% compared with 7.7 % in 2021), with Elf Bar and Geek Bar being the most popular brands [2]. E-cigarettes have become increasingly popular and visible in public life and research by Smith et al. [3] highlights that</p>

perceptions about e-cigarette users were tied to product characteristics, with tank models being associated with adults and disposable e-cigarettes associated with youths. Recently, disposable e-cigarettes (such as 'Puff- bar', 'Elf- bar' or 'Geek- bar') have started to dominate the market [4].

[1] Tattan- Birch H, Jackson SE, Kock L, et al. Rapid growth in disposable e- cigarette vaping among young adults in Great Britain from 2021 to 2022: a repeat cross- sectional survey. *Addiction* 2023;118:382–6.

[2] Action on Smoking and Health. Use of e- cigarettes (vapes) among young people in Great Britain. Action on Smoking and Health, 2022.

[3] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

[4] Wang TW, Gentzke AS, Neff LJ, et al. Disposable E- cigarette use among U.S. youth - an emerging public health challenge. *N Engl J Med* 2021;384:1573–6.

#### **4. What evidence is there of effective measures to limit children's access to vapes?**

Research conducted in the US by O'Connell and Kephart [1] highlights that few US policies (including at the federal, state and local levels) have been formally evaluated for their effectiveness in reducing or preventing youth vaping.

We believe that strengthening the evidence base should be a priority for researchers going forward, given the potential of these policies to intervene on social and environmental conditions that affect youth initiation and uptake.

[1] O'Connell M, Kephart L. Local and State Policy Action Taken in the United States to Address the Emergence of E-Cigarettes and Vaping: A Scoping Review of Literature. *Health Promot Pract.* 2022 Jan;23(1):51-63. doi: 10.1177/1524839920963691. Epub 2020 Nov 7. PMID: 33164552.

#### **5. Are there any potential unintended consequences to the measures you have suggested?**

We urge policymakers to consider implementing measures to deter youth experimentation with e-cigarettes, while not making the products inaccessible to vulnerable groups who may use them as a smoking cessation option.

#### **6. What evidence is there of children accessing nicotine-containing products, other than vapes and tobacco?**

This area is out with the scope of our research but is an area of real concern and requires research.

#### **7. Is there any other evidence on building regulatory compliance that the government should be aware of?**

#### **8. Do you have any evidence to provide on the appeal of vapes to children?**

- Yes
- No

#### **9. What evidence is there about the appeal of vapes to children?**

Research by Smith et al. [1] highlights that disposable e-cigarettes are perceived by young people to be 'cool', 'fashionable', and enticing and are viewed as a modern lifestyle 'accessory'. Disposable e-cigarette products are attractive to young people because of their vibrant colours and flavours, low cost, and ease of access. In addition, Smith et al. [1] states that perceptions about e-cigarette users were tied to product characteristics, with tank models being associated with adults and disposable e-cigarettes associated with youths. Youths in Smith et al. [1] research discussed the positives of the compact design of the product as this allowed them to be discretely carried and hidden when in school. Furthermore, Smith et al. [1] found that youths commonly mistake the products for other everyday products, such as highlighters and tins of mints. This combined with the compact design of the products raises concerns about the way manufacturers design the products and if this has been done intentionally to target a younger audience.

[1] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

## 10. What evidence is there about the appeal of vape flavours to children?

In 2019 it was estimated there were 16,000 unique flavours, with an average of 242 new flavours being added per month [1,2]. The vast majority of flavours are related to confectionery (e.g., candyfloss). There are currently no regulations restricting the flavours available to consumers in the UK. Research has shown that the variety of available flavours is one of the top reasons for experimentation with e-cigarettes among youths, in addition to peer influence and curiosity [3,4]. Compared to adults, youths are more likely to use sweet e-liquid flavoured e-cigarettes and their popularity among youths and the rates of prevalence have significantly increased in recent years [5,6]. Smith et al. [7] shows that the disposable nature of the new range of e-cigarette products coupled with aggressive online social media marketing means that cheap, disposable e-cigarettes are particularly appealing to youths. Research [8-9] has shown that participants particularly like the variety of disposable e-cigarette flavours and the variety of available flavours is one of the top reasons for experimentation with e-cigarettes among youths. Smith et al. [7] highlights that in their study participants discussed flavours predominately in relation to disposable e-cigarettes, often associating the colour of the product with its flavour. It was perceived by the youths in the study that disposable e-cigarettes are targeted at younger audiences [7]. While rechargeable e-cigarettes (tank models) were perceived by our participants, as products for adults. There is concern that this variety of flavours may encourage young non-smokers to take up vaping, with a study of English school children finding that flavoured e-cigarette adverts elicited greater interest in trying them than adverts for non-flavoured e-cigarettes [9]. The appeal of flavours to young people should continue to be monitored and some restrictions of e-cigarette flavours may be necessary to limit this appeal.

[1] Basham P. A good news story. *Tobacco Reporter* 2023;1:28-30.

[2] TIERNEY, P. A., KARPINSKI, C. D., BROWN, J. E., LUO, W. & PANKOW, J. F. 2016. Flavour chemicals in electronic cigarette fluids. *Tobacco Control*, 25, (1), 10-15

[3] Kong G, Morean ME, Cavallo DA, et al. Reasons for electronic cigarette experimentation and discontinuation among adolescents and young adults. *Nicotine Tob Res* 2015;17:847-54.

[4] BOLD, K., KONG, G., CAVALLO, D., CAMENGA, D. & KRISHNAN-SARIN, S. 2016. Reasons for Trying E-cigarettes and Risk of Continued Use. *Pediatrics*, 138, (3), e20160895.

[5] STANTON, C. A., VILLANTI, A. C., WATSON, C. & DELNEVO, C. D. 2016. Flavoured tobacco products in the USA: synthesis of recent multidiscipline studies with implications for advancing tobacco regulatory science. *Tobacco Control*, 25, (1), 1-3.

[6] HARRELL, M. B., WEAVER, S. R., LOUKAS, A., CREAMER, M., MARTI, C. N., JACKSON, C. D., HEATH, J. W., NAYAK, P., PERRY, C. L., PECHACEK, T. F. & ERIKSEN, M. P. 2017. Flavoured e-cigarette use:



Characterizing youth, young adult, and adult users. *Preventive Medicine*, 5, (1), 33-40.

[7] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

[8] McDonald EA, Ling PM. One of several "toys" for smoking: young adult experiences with electronic cigarettes in New York City. *Tob Control* 2015;24:588–93.

[9] Zare S, Nemati M, Zheng Y. A systematic review of consumer preference for e-cigarette attributes: flavour, nicotine strength, and type. *PLoS One* 2018;13:e0194145.

## 11. What evidence is there of effective measures to limit the appeal of vapes to children?

The appeal of flavours on young people should continue to be monitored and it is possible that restrictions of e-cigarette flavours may be necessary to limit this appeal. New Zealand has prohibited generic retailers (e.g., supermarkets and service stations) from selling e-cigarette flavours other than tobacco, mint and menthol while still allowing specialist vape retailers to sell other flavours and this could be a potential path for UK regulations to follow [1]. We suggest reviewing the name and descriptions of e-cigarette flavours as this may be a compelling way in which the appeal of flavours to youths can be reduced without restricting adult smokers' access to different flavoured e-cigarettes.

[1] Library of Congress. New Zealand: Bill to Regulate Vaping Introduced. Library of Congress, March 2020. Available at: <https://www.loc.gov/item/global-legal-monitor/2020-03-12/new-zealand-bill-to-regulate-vaping-introduced/>

## 12. Are there any potential unintended consequences to the measures you have suggested?

It is argued that removing flavours will promote more combustible tobacco use and remove a product that facilitates smoking cessation [1-3] as research has shown that flavourings may help reduce the number of cigarettes used by adult smokers in the short term [4].

[1] Polosa R, Caponnetto P, Maglia M, et al. Success rates with nicotine personal vaporizers: a prospective 6-month pilot study of smokers not intending to quit. *BMC Public Health* 2014;14:1159.

[2] Adriaens K, Van Gucht D, Declerck P, et al. Effectiveness of the electronic cigarette: an eight-week Flemish study with six-month follow-up on smoking reduction, craving and experienced benefits and complaints. *Int J Environ Res Public Health* 2014;11:11220–48.

[3] Dawson, A and Smith, J. Vaping Regulation in 2022: Identifying gaps in the regulation of e-cigarettes <https://apo.org.au/sites/default/files/resource-files/2022-08/apo-nid319258.pdf>

[4] Hajek P, Phillips-Waller A, Przulj D, et al. A randomized trial of e-cigarettes versus nicotine-replacement therapy. *N Engl J Med* 2019;380:629–37.

## 13. Is there any other evidence on the appeal of vapes to children that the government should be aware of?

Yes. See below for other evidence.

Tatum Z, Leventhal A, Wipfli HL. Playtime: vaping devices designed as cartoons and toys may appeal to kids *Tobacco Control* Published Online First: 29 March 2023. doi: 10.1136/tc-2022-057908

Knopf, A. (2020), Do you know what vaping companies are telling your children?. *The Brown University Child and Adolescent Behavior Letter*, 36: 9-10. <https://doi.org/10.1002/cbl.30498>

## 14. Do you have any evidence to provide on the marketing and promotion of vape

**products?**

- Yes
- No

**15. What evidence is there that vapes are being targeted specifically at children?**

E-cigarettes are promoted creatively through social media and considering the potential influence of social media marketing on young people. Youths in Smith and Hilton's [1] research highlighted a variety of tactics e-cigarette companies use, including influencer or celebrity endorsement, attractive youth flavours, bright colours and emotional appeal to advertise and promote their products directly to young people [1]. Social media influencers who advertise e-cigarettes were described as portraying e-cigarettes as 'cool' and 'fashionable' to entice viewers to try the products [1]. Youths discussed the positive portrayal of e-cigarettes by social media influencers, and they were enticing the viewer to buy the product [1]. Youths highlighted that e-cigarette and/or tobacco companies use social media influencers to advertise their products on social media and by advertising on social media platforms, they will increase the reach of the adverts to a wider audience [1].

Previous studies which examined e-cigarette-related social media [2-6] found that the vast majority of the content depicted positive attitudes towards vaping, while negative characterisations were mostly absent. Youths in Smith et al. [7] research discussed the positives of the compact design of the product as this allowed them to be discretely carried and hidden when in school. Furthermore, Smith et al. [7] found that youths commonly mistake the products for other everyday products, such as highlighters and tins of mints. This combined with the compact design of the products raises concerns about the way manufacturers design the products and if this has been done intentionally to target a younger audience. Consequently, there is a risk that youths will be exposed to, and possibly engage with, content that promotes vaping while staying uninformed about the negative aspects, including potential health harms.

[1] Smith, MJ and Hilton, S (2023). Youth's exposure to and engagement with e-cigarette marketing on social media: a UK focus group study. [under review]

[2] Chen Y, Tilden C, Vernberg DK. Adolescents' interpretations of e-cigarette advertising and their engagement with e-cigarette information: results from five focus groups. *Psychol Health*. 2020;35(2):163-76.

[3] Scheffels J, Tokle R, Linnansaari A et al. E-cigarette use in global digital youth culture. A qualitative study of the social practices and meaning of vaping among 15-20-year-olds in Denmark, Finland, and Norway. 2023;111:103928.

[4] Johnson AC, Mays D, Hawkins KB et al. A Qualitative Study of Adolescent Perceptions of Electronic Cigarettes and Their Marketing: Implications for Prevention and Policy. *Child Health Care*. 2017;46(4):379-92.

[5] Malik A, Li Y, Karbasian H et al. Live, Love, Juul: User and Content Analysis of Twitter Posts about Juul. *Am J Health Behav*. 2019;43:326-36.

[6] Smith MJ, Buckton C, Patterson C, Hilton S. User-generated content and influencer marketing involving e-cigarettes on social media: a scoping review and content analysis of YouTube and Instagram. *BMC Public Health*. 2023 Mar 20;23(1):530.

[7] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466.

**16. What evidence is there of effective measures to limit the marketing and or promotion of vapes to children?**

There are methods to deter youths from viewing the content (age and/or health warnings), however, Smith et al's [1] research found a large proportion of the social media content containing e-cigarettes did not use such methods. Although it is not possible state for certain that youths are extensively exposed to vaping content, but we can state that should youths



actively access this content or be exposed to this indirectly, a large portion of vaping content promotes e-cigarette use, and typically the content does not contain age and/or health warnings, which is concerning.

[1] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

**17. Are there any potential unintended consequences to the measures you have suggested?**

We urge policymakers to consider implementing measures to restrict the advertising and marketing of e-cigarettes to deter youth experimentation with e-cigarettes, while not making the products inaccessible to vulnerable groups who may use them as a smoking cessation option.

**18. Is there any other evidence on the marketing and or promotion of vapes to children that the government should be aware of?**

Yes. See below for other evidence.

Gilley, Meghana; Beno, Suzanneb. Vaping implications for children and youth. *Current Opinion in Pediatrics* 32(3):p 343-348, June 2020. DOI: 10.1097/MOP.0000000000000889

Knopf, A. (2020), Do you know what vaping companies are telling your children?. *The Brown University Child and Adolescent Behavior Letter*, 36: 9-10. <https://doi.org/10.1002/cbl.30498>

**19. Do you have any evidence to provide on the role of social media?**

- Yes
- No

**20. What evidence is there that social media influences children's behaviour relating to vapes?**

Social media is widely used by young people with user-generated content and influencer marketing particularly influential in promoting products. E-cigarettes are promoted creatively through social media, with well-designed features including colours, flavour variations, incentives (such as price promotions and discount vouchers), and even celebrity endorsements [1]. Online marketing that leads to exposure to e-cigarette advertising, including where it is concealed as information or recommendations from peers, can increase the likelihood of vaping in individuals, including among younger people and non-smokers [2-4]. Research by Smith et al. [5] examined the content and characteristics of vaping videos on YouTube and posts on Instagram. In doing so, Smith et al. [5] offer key insights into the prevalence of vaping-related content on social media platforms. The dominant presence of reviews of vaping products and the lack of age and health warnings highlights that social media can expose youths to an array of products meant for adult use only. Smith et al. [5] found that the vast majority of information on YouTube and Instagram about vaping promotes products/use and depicts the use of e-cigarettes as socially acceptable. This can have implications for youths who may be susceptible to such advertising. Although there are methods to deter youths from viewing the content (age and/or health warnings), Smith et al's [5] research found a large proportion of the videos and posts did not use such methods. Although it is not possible state for certain that youths are extensively exposed to vaping

content but we can state that should youths actively access this content or be exposed to this indirectly, a large portion of vaping content promotes e-cigarette use, and typically the content does not contain age and/or health warnings, which is concerning.

[1] Zhu S, Sun J, Binnevie E, Cummins S, Gamst A, Yin L, et al. Four hundred and sixty brands of e-cigarettes and counting: implications for product regulation. *Tob Control*. 2014;23(3):3–9.

[2] Chu KH, Colditz JB, Primack BA, Shensa A, Allem JP, Miller E, et al. JUUL: spreading Online and Offline. *J Adolesc Health*. 2018;63(5):582–6.

[3] Phua J, Jin SV, Hahm JM. Celebrity-endorsed e-cigarette brand Instagram advertisements: Effects on young adults' attitudes towards e-cigarettes and smoking intentions. *J Health Psychol*. 2017;23(4):550–60.

[4] Amin S, Dunn AG, Laranjo L. Social Influence in the Uptake and Use of Electronic Cigarettes: a systematic review. *Am J Prev Med*. 2020;58(1):129–41.

[5] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

## **21. What evidence is there of effective measures to ensure vapes are not targeted to children through social media platforms?**

Social media platforms require the use of age restrictions for all tobacco-related content, and vaping companies/organisations' pages may not voluntarily elect to employ these restrictions [1,2]. As highlighted by the results from Smith et al. [2], the majority of YouTube videos and Instagram posts are not restricted and/or contain age and/or health warnings. Social media platforms should consider implementing more robust measures, such as age restrictions and portraying the negative aspects of vaping, to ensure the prevention of vaping-related content targeted at underage users. Policymakers should require social media platforms to build more robust measures to protect youths and to restrict the ability of marketers to reach youths with social media content promoting e-cigarettes.

[1] Soneji S, Gerling M, Yang J, Sargent J. Online electronic cigarette marketing—violation of self-regulated Standards by Tobacco Companies. *J Am Med Association Pediatr*. 2016;170(5):511–2.

[2] Smith MJ, Buckton C, Patterson C, Hilton S. User-generated content and influencer marketing involving e-cigarettes on social media: a scoping review and content analysis of YouTube and Instagram. *BMC Public Health*. 2023 Mar 20;23(1):530. doi: 10.1186/s12889-023-15389-1.

## **22. Are there any potential unintended consequences to the measures you have suggested?**

## **23. Is there any other evidence on the marketing and promotion of vaping products to children through different channels that the government should be aware of?**

E-cigarettes are promoted creatively through social media and considering the potential influence of social media marketing on young people. Youths in Smith and Hilton's [1] research highlighted a variety of tactics e-cigarette companies use, including influencer or celebrity endorsement, attractive youth flavours, bright colours and emotional appeal to advertise and promote their products directly to young people. Social media influencers who advertise e-cigarettes were described as portraying e-cigarettes as 'cool' and 'fashionable' to entice viewers to try the products. Youths discussed the positive portrayal of e-cigarettes by social media influencers, and they were enticing the viewer to buy the product. Youths highlighted that e-cigarette and/or tobacco companies use social media influencers to advertise their products on social media and by advertising on social media platforms, they will increase the reach of the adverts to a wider audience.

[1] Smith, MJ and Hilton, S (2023). Youth's exposure to and engagement with e-cigarette marketing on social media: a UK focus group study. [under review]

#### 24. Do you have any evidence to provide on effective educational approaches?

- Yes
- No

#### 25. Do you have any evidence of the environmental impact of disposable vapes?

- Yes
- No

#### 26. What evidence is there of the impact of disposable vapes on the natural environment when they are discarded?

Disposable e-cigarettes are designed for single use and the environmental impact of the waste was raised by participants. The increased popularity of disposable e-cigarettes (such as PuffBar and ElfBar) has resulted in the generation of more single-use plastic waste. Both users and non-users were aware of the negative environmental impact of using disposable e-cigarettes. E-cigarettes remain subject to political and public health debates for various reasons, including the lack of evidence on their long-term health impact, and now there is a new topic in the scientific debate; disposable e-cigarettes are a rising environmental threat [2,3]. Thus, regulation should not only focus on the health effects of e-cigarette products but may wish to consider their environmental impact. As disposable e-cigarettes contain valuable materials such as lithium batteries and copper, they are classed as Waste Electrical and Electronic Equipment (WEEE). If damaged when thrown away, lithium batteries can cause fires at waste disposal plants, so consumers should dispose of them at a local electronics recycling centre or at the shop where they bought the device. However, there appears to be confusion across the marketplace with respect to the WEEE Regulations [4] and how to comply. Material Focus, a non-profit organisation, are pushing for e-cigarette recycling to be made much easier, and for manufacturers and retailers to install collection points inside shops. Some observers of e-cigarette debates suggest that banning disposable e-cigarettes would be a step in the right direction, arguing that e-cigarettes would still be available in a rechargeable form, which, although not without their own environment impacts, is the eco-friendlier option. Others argue that this approach is hypocritical as cigarettes, which also pose an environmental threat, are still on the market. Results from Smith et al. [1] highlighted that policymakers could consider measures to discourage youth experimentation with disposable e-cigarettes, while not making the products inaccessible to vulnerable groups who may use them as a smoking cessation option. In addition, we suggest the growing need for policymakers to work together to develop and implement comprehensive policies to prevent initiation of e-cigarette use among young people and evaluate the safe recycling and disposal of disposable e-cigarettes.

[1] Smith MJ, MacKintosh AM, Ford A, et al Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study *BMJ Open* 2023;13:e068466. doi: 10.1136/bmjopen-2022-068466

[2] Pourchez J, Mercier C, Forest V. From smoking to vaping: a new environmental threat? *Lancet Respir Med* 2022;10:e63–4. doi:10.1016/S2213-2600(22)00187-4

[3] Delnevo C, Giovenco DP, Hrywna M. Rapid proliferation of illegal pod-mod disposable e-cigarettes. *Tob Control* 2020;29:e150–1. doi:10.1136/tobaccocontrol-2019-055485

[4] <https://www.gov.uk/guidance/regulations-waste-electrical-and-electronic-equipment>





35-47.

These are outwith the scope of our research but are areas of real concern and require further research.

**When was the response submitted?**

5<sup>th</sup> June 2023

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<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15389-1>

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