

**Vaping-associated nicotine dependence amongst children  
and young people in the UK – time to act.**

Journal:	<i>Perspectives in Public Health</i>
Manuscript ID	Draft
Manuscript Type:	Current Topics & Opinions
Keywords:	Addictions, Paediatrics, Health Services
Abstract:	This type of article does not have an abstract.

SCHOLARONE™  
Manuscripts

1  
2  
3 Vaping-associated nicotine dependence amongst children and young people in the UK –  
4 time to act.  
5  
6  
7

8 In the UK it is illegal to sell vapes (also known as e-cigarettes) to children and young people  
9 (CYP) under the age of 18, in the same way it is illegal to sell them combustible tobacco in  
10 the form of cigarettes.  
11

12 Nevertheless, recent data from Action on Smoking and Health (ASH) suggest that 18% of  
13 UK 11-17-year-olds (around 980,000 children) have tried vaping and just over 7% are  
14 current vapers, with around 230,000 reporting vaping more than once a week (1). Our  
15 engagement work with CYP in North West England suggests this may be an underestimate,  
16 partly due to CYP being unwilling to disclose vape use to adults.  
17

18 Available data suggest that the likelihood of vaping increases with age amongst CYP (1).  
19 This pattern continues into early adulthood, with recent evidence showing that in England,  
20 increasing vaping levels amongst adults who had never regularly smoked was primarily  
21 amongst 18-24-year-olds (2). Although the ASH survey does not include participants under  
22 the age of 11, locally-collected surveys suggest primary school-aged children are also trying  
23 vaping (e.g. 3).  
24  
25

26 These concerns formed part of the rationale for the currently paused Tobacco and Vapes  
27 Bill, which includes content around youth vaping (4). Despite this new law, which seeks to  
28 create “a smokefree generation and tackle youth vaping”, when it is finally enacted it is likely  
29 to be too late for those CYP already dependent on nicotine as a result of their vaping. While  
30 there is a lack of data around the prevalence of this phenomenon, reports suggest “...there  
31 is reason to think vapers are becoming more dependent...”, with 44% of regular vapers  
32 subjectively describing “strong, very strong, or extremely strong” urges to vape – levels that  
33 are comparable with urges to smoke cigarettes amongst CYP (1). A US study found 10.3%  
34 of only-vapers aged 11-18 were using their vape within 5 minutes of waking (5).  
35  
36

37 Aside from the issue of nicotine dependence, vape use appears to be linked with mental (ill)  
38 health (6) and broader inequalities – for example CYP who have experienced Adverse  
39 Childhood Experiences or have social services involvement are more likely to vape (7).  
40 Vaping is associated with symptoms such as cough and wheeze, and side-effects may be  
41 more common in those with underlying respiratory conditions such as asthma (8). ASH data  
42 show that the majority of 11-17-year-olds think that vaping is at least as dangerous as  
43 smoking (1). Although the dangers of smoking are well-established, the long-term impact of  
44 vaping on CYP are unclear and unlikely to be harm-free.  
45  
46

47 The utility of vapes as an effective harm reduction strategy for adults dominates debate  
48 around their use (9), meaning mixed and confusing messaging exists for CYP around  
49 vaping. CYP consistently identify vaping as something they are worried about (7, 10-12).  
50 Several national reports have also called for better data around levels of vaping-associated  
51 nicotine dependence in CYP and the development of “non-judgemental support” for those  
52 who are addicted to vaping (and smoking), delivered via services which are distinct from  
53 those offered to adults (9, 10). However, the current healthcare landscape in the UK is  
54 almost completely devoid of services to support those under the age of 16 who want to  
55 address their vaping. A mismatch between vaping rates amongst CYP and the number of  
56 parents/carers who think that their child vapes may also make it difficult to identify those who  
57 need services and may make it more likely that they will come through a “punitive” route  
58 such as getting in trouble at school. Where interventions are offered, they are rarely CYP-  
59 focused.  
60

1  
2  
3 There are currently no established evidence-based interventions that can be offered in this  
4 age group. A 2023 Cochrane review looking at cessation of electronic cigarette use in  
5 children and adolescents reported no completed randomised controlled trials (RCT) that met  
6 the criteria for inclusion (13), although some studies are currently underway globally. In the  
7 UK, were pharmacotherapy to be used as part of an intervention (as it is in the US), nicotine  
8 replacement therapy (NRT) would need to be prescribed off-licence for anyone under the  
9 age of 12, restricting who could deliver services to this younger age group.

11 Worrying trends including the presence of synthetic cannabinoids such as “Spice” in vapes  
12 confiscated in schools, the sale of “illicit” vapes, and the fact that “given” was a very common  
13 source of vapes for 11-17-year-olds who participated in the ASH survey, further complicate  
14 things. Vaping does not occur in isolation – it is part of the bigger puzzle currently having a  
15 negative impact on CYP and captured by a participant in a local vaping survey in Greater  
16 Manchester “Most of us know the risks we just don’t care enough about our lives to do  
17 anything about it. If the world around us is visibly screwed and we might not last long, why  
18 try? Why care?” (12).

21 The co-existence of unmet mental health need in CYP who vape (6) and the mixed evidence  
22 of the relationships between vaping and smoking, and vaping and other drug use, mean that  
23 any services developed will need to be holistic and inclusive, and accompanied by clear  
24 messaging that vaping is not safe (i.e. risk-free) in adolescence. The case for co-  
25 development and co-production of services and interventions is strong, as is the argument  
26 for dedicated services, staffed by those with experience working with this age group.

29 High levels of vaping, confusion around health effects, unknown levels of nicotine  
30 dependence, a lack of services, an absence of evidence-based interventions, and perhaps  
31 most importantly, a consistent call for help from CYP, mean that action needs to be taken  
32 now to avoid further harm. This action must take place in the context of wider work around  
33 vaping, including the co-development of interventions to prevent vaping amongst non-  
34 vapers, addressing the mixed messages around the safety of vaping, the passing of the  
35 Tobacco and Vapes Bill, and the introduction of appropriate support for those CYP for whom  
36 the Bill is too late.

## References

1. Action on Smoking and Health. Use of vapes (e-cigarettes) among young people in Great Britain. August 2024. Available at: <https://ash.org.uk/resources/view/use-of-e-cigarettes-among-young-people-in-great-britain> (last accessed 28 Oct 2024).
2. Jackson, Sarah E et al. Vaping among adults in England who have never regularly smoked: a population-based study, 2016–24. *The Lancet Public Health*. 9(10): e755 - e765.
3. Nottinghamshire County Council Public Health. July 2024. Vaping in Nottinghamshire – latest information. Available via: <https://padlet.com/kaymassingham/notts-vape-free-schools-resource-pack-v201ldho8fvd4u3r/wish/94PGWn8RrNneQLRV> (last accessed 28 Oct 2024).
4. Department for Health and Social Care Media Team. 15 April 2024. Creating a smokefree generation and tackling youth vaping: what you need to know. Available at: <https://healthmedia.blog.gov.uk/2024/04/15/creating-a-smokefree-generation-and-tackling-youth-vaping-what-you-need-to-know/> (last accessed 26 Octo 2024).

- 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 11
  - 12
  - 13
  - 14
  - 15
  - 16
  - 17
  - 18
  - 19
  - 20
  - 21
  - 22
  - 23
  - 24
  - 25
  - 26
  - 27
  - 28
  - 29
  - 30
  - 31
  - 32
  - 33
  - 34
  - 35
  - 36
  - 37
  - 38
  - 39
  - 40
  - 41
  - 42
  - 43
  - 44
  - 45
  - 46
  - 47
  - 48
  - 49
  - 50
  - 51
  - 52
  - 53
  - 54
  - 55
  - 56
  - 57
  - 58
  - 59
  - 60
5. Glantz, S et al. Nicotine Addiction and intensity of e-cigarette use by Adolescents in the US, 2014-2021. *JAMA Network Open*. 2022; 5(11): e2240671.
6. Reynolds, C.M.E., et al. 2024. A review of systematic reviews on the health effects of e-cigarette use in children and adolescents. Institute of Public Health: Dublin and Belfast. Available at: <https://www.publichealth.ie/news/report-review-systematic-reviews-health-effects-vaping-children-and-adolescents> (last accessed 26 Oct 2024).
7. The Children's Commissioner. The Children's Commissioner's response to 'Youth vaping: call for evidence'. 9 June 2023. Available at: <https://www.childrenscommissioner.gov.uk/resource/the-childrens-commissioners-response-to-youth-vaping-call-for-evidence/> (last accessed 26 Oct 2024).
8. DiCicco M. et al. How E-cigarettes and vaping can affect asthma in children and adolescents. 2022. *Curr Op Allergy Clin Immunol*. 22(2): 86-94.
9. <https://www.nhs.uk/live-well/quit-smoking/using-e-cigarettes-to-stop-smoking/> (last accessed 26 Oct 2024).
10. Public Health Wales. Vaping amongst Children and Young People in Wales, Incident Response Group, Incident Report. 18 April 2024. Available via: <https://phw.nhs.wales/news/tackle-dependency-visibility-and-availability-to-address-rapid-rise-in-youth-vaping-say-public-health-experts/> (last accessed 26 Oct 2024).
11. Amato MS et al. "It's really addictive and I'm trapped:" A qualitative analysis of the reasons for quitting vaping among treatment-seeking young people. *Addict Behav*. 2021 Jan;112:106599.
12. Healthwatch Trafford. The Vaping Habits of Children and Young People in Trafford. July 2024.
13. Barnes C, et al. Interventions to prevent or cease electronic cigarette use in children and adolescents. *Cochrane Database of Systematic Reviews*. 2023, Issue 11. Art. No.: CD015511. DOI: 10.1002/14651858.CD015511.pub2. (last accessed 26 Oct 2024).