

Vaping and Young People with Special Educational Needs and Disabilities: Desktop Review

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Introduction

This project was funded by Healthwatch Brighton and Hove and conducted in partnership with Amaze, Parent Carers' Council (PaCC) and Brighton and Hove City Council.

Brighton and Hove City Council's 2023 'Safe and Well at School Survey' (of nearly 14,000, 8-16 year olds) revealed a rise in numbers trying e-cigarettes and vaping¹ regularly and found that older students (Key Stage 4/ 14-16 year old) are more likely to regularly vape (13%) compared with Key Stage 3 /11-14 year old students (3%).

As a result of these findings and the speed at which vaping has arisen as a complex issue across the country, Healthwatch Brighton and Hove, Amaze, PaCC and Brighton and Hove City Council, decided to conduct some research into vaping with young people aged under 25 in Brighton and Hove.

The research will include:

- This desktop report which summarizes current knowledge on vaping in the UK
- A survey on young people with SEND and vaping
- A survey of parents and carers of young people with SEND
- Focus groups to explore the issues and themes that emerge from the surveys.

The research will allow us to learn more about the reasons behind why young people are vaping, their experiences of vaping, their beliefs and

¹ Note: E-cigarettes refer to the device and vaping is the act of using the e-cigarette

knowledge of the harms and risks associated with vaping and their thoughts on how to encourage young people to stop vaping.

There is a particular interest in learning about the experience of young people with Special Educational Needs and Disabilities (SEND) as so little is known about this group's experiences, beliefs and knowledge around vaping.

Moreover, this research is timely as one of the proposed priorities for the Joint Strategic Needs Assessment (Brighton and Hove) is children and young people with SEND. It is anticipated that results from this project could be used by mental health practitioners in schools and school mental health services in Brighton and Hove.

Desktop Research Findings

The aim of this desktop research is to consolidate information about young people's experiences of vaping and provide some contextual knowledge for the project. Twelve reports were reviewed and summarized, drawing mostly from national data. Each report is summarized in Appendix 1 and the key trends and findings are reported below.

The findings of this desktop research are presented in three sections: general trends in young people's vaping habits, findings of past research on SEND and vaping and future research needed into SEND and vaping.

General trends: Young people and vaping

- Rates of vaping amongst 11-17 years olds appear to have stabilized since 2022 after a period of increase from 2013. The current vaping rates for 11-17-year-olds is 7.2%. (ASH, 2024).
- The Office for National Statistics has also published data on e-cigarette use in Great Britain. It showed that, in 2022, 16-to-24-year-olds were more likely to report daily or occasional vaping than all other age groups (Balogen, 2024).
- Exposure to vape promotion remains high, having increased between 2022 and 2023. In 2024, 72% of 11-17-year-olds who are

aware of vapes being exposed to some form of vape promotion, the main sources being in shops (55%) and online (29%) (ASH, 2024).

- Disposable models (which are pre-filled with liquid and used only once) were the most popular type of vaping device in the 2024 (ASH, year). These were used by 52.8% of 11- to 18-year-olds who currently vaped, and 18.7% used tank models (which are reusable and rechargeable kits that users can refill with liquid) (UK Government, 2022).
- The variety of fruity and sweet flavors, colourful packaging and low price point of many disposable e-cigarettes, make vaping appealing to children and young people (Healthwatch Blackpool, 2023, Healthwatch Camden, 2024).
- The ASH 2024 survey revealed that the most frequently used e-cigarette flavouring for young people is 'fruit flavour' chosen by 59% of current e-cigarette users. The next most popular are sweet flavours, including chocolate, candy, coffee and vanilla flavours. Children aged 11-17 are less likely to choose tobacco and mint and menthol flavours (ASH, 2024).
- Children and young people have generally good levels of knowledge of harm associated with vaping. In the International Tobacco Control Policy Evaluation Project - Youth Tobacco and Vaping survey, 2022 report, 84% of young people in England, aged 16-to-19-years, acknowledged that there was some degree of harm associated with daily vaping (cited in UK Government, OHID Research and Analysis, Nicotine vaping in England report, 2022)
- However, there is evidence that many children and young people think the level of harm from vaping is similar to tobacco. For example, when asked "Do you think vaping is safer than smoking cigarettes?", 1188 children and young people agreed compared to 1315 children and young people who thought it was 'just as bad as smoking cigarettes' (Healthwatch Blackpool, 2023). The ASH 2024 survey also shows that most children aged 11-17 (58%) wrongly believe that vaping is about the same or more harmful than smoking. This includes nearly half (46%) of those who have tried vaping. Believing vaping is harmful does not appear to be putting children off from trying vaping.

- This review could find no evidence that children and young people viewed smoking cigarettes as safer than vaping due to cigarettes originating from a more 'natural' product.
- Interestingly, there is no conclusive evidence that vaping is acting as a gateway drug to smoking for children and young people as levels of smoking are still reducing in the 11–15-year-old age group (Balogun, 2024). More research is required to confirm this.

Past research on SEND and vaping

- This review found limited research on SEND and vaping – most research done on SEND and vaping has tended to be conducted within a subsample of other surveys on vaping (e.g. Healthwatch Blackpool engaged SEND schools to participate alongside mainstream educational settings and found generally low prevalence of vaping among these students).
- Past research has, however, identified an association between e-cigarette use and a range of mental health conditions. Khan et al (2023) found in their research significant associations between mental health outcomes, including depression and suicidality, among current electronic cigarette users and those who had ever used electronic cigarettes. Compared to adolescents who had never used electronic cigarettes, both depression and anxiety were reportedly higher among electronic cigarette users.
- Other mental health conditions with an association with vaping include disordered eating, Attention Deficit Hyperactivity Disorder (ADHD), impulsivity and perceived stress, with additional limited evidence for an association with anxiety (Balogun, 2024)
- The association between ADHD symptoms and vaping among adolescents is perhaps the most well documented. Evidence that shows that people with ADHD are more likely to vape and /or smoke cigarettes. Researchers have found that the impulsivity and risk taking associated with ADHD means it is more likely that people with ADHD are more likely to try/ take up vaping. (Goldenson et al, 2018) (Becker & Rice, 2021) (Taylour, et al, 2022).
- There is also some evidence which demonstrates that people with ADHD are likely to find it harder to quit nicotine. As nicotine is a

stimulant, some people with ADHD report it calming them down. Findings from research with adult smokers with ADHD for example, who had made several attempts to quit, reported those with ADHD who smoked nicotine experienced intense withdrawal symptoms, and relapsed early and often. They also often perceived a worsening of ADHD symptoms with nicotine abstinence (Liebrenz et al, 2016).

- There is also evidence to suggest that young people are vaping to relieve stress and anxiety. For example, 13 out of the 24 young people who currently or previously vaped said that 'vaping had a positive impact on their mental well-being'. (Healthwatch Camden, 2024) Notely et al (2024) in their research also noted that many of the young people they spoke to 'used vapes as a way of managing stress and anxiety'.
- In summary, there is a significant association between vaping and ADHD and some limited evidence around the association between mental health and vaping. However, more evidence is needed to better understand how ongoing mental illness affects the uptake, use and cessation of vaping in children and young people.

Future research on SEND and vaping.

- This desktop review has highlighted the need to conduct further research into the experiences of children and young people with SEND around vaping as such little research has been done on the topic.
- Past research has confirmed an association between mental health and vaping, and it would be particularly interesting to learn more about this at a local level.
- There is also a case to involve parents and carers of young people with SEND as again little has been done to examine the views of parents and carers around young people and vaping.
- This research will allow us to learn more about why young people with SEND are vaping, their experiences of vaping, their beliefs and knowledge of the harms and risks associated with vaping and their thoughts on how to encourage young people to stop vaping in Brighton and Hove.

- This project is a real opportunity to do some innovative research with SEND children and young people to raise knowledge about this group's views and beliefs in Brighton and Hove.
- And, as the use of e-cigarettes for those under 18 is illegal, there is no current pathway to support children and young people to stop vaping. Results from this research could therefore also help shape and inform content of support to help young people stop vaping in Brighton and Hove.

Appendix 1

Report citation	Study details	Issues specific to Vaping/ Young people/ SEND
<p>B. Balogun (2024)</p> <p><i>'Youth vaping in England'</i> House of Commons Library</p> <p>Youth vaping in England - House of Commons Library (parliament.uk)</p>	<p>A briefing which provides discussion on vaping in young people in England</p>	<p>The Office for National Statistics has published data on e-cigarette use in Great Britain. It showed that, in 2022, 16-to-24-year-olds were more likely to report daily or occasional vaping than all other age groups.</p> <p>A survey from ASH found that 54% of young people aged 11 to 18 in England report having begun vaping "just to give it a try". The International Tobacco Control study (ITC, an international cohort study on smoking and vaping found that other commonly reported reasons for vaping (PDF) include enjoying the flavour of e-cigarettes, dealing with stress and anxiety and curiosity.</p> <p>Mental health - Vaping in young people has been associated with an increased incidence of mental health conditions. In one</p>

		<p>systematic review, researchers identified 40 studies examining the prevalence of mental health conditions among adolescents and young adults who use e-cigarettes. They concluded that e-cigarette use in this demographic is associated with greater mental health problems compared with the non-use of e-cigarettes. Researchers identified an association between e-cigarette use and a range of mental health conditions. This included depression, suicidality, disordered eating, attention deficit hyperactivity disorder (ADHD), impulsivity and perceived stress, with additional limited evidence for an association with anxiety.</p> <p>Gateway to smoking? There is concern that, with children and young people, e-cigarettes could act as a “gateway” to tobacco smoking for young people. There are behavioural similarities between tobacco smoking and vaping. This underpins fears that vaping could renormalise tobacco smoking while undoing the decades-long work that has gone into making smoking socially</p>
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		<p>unacceptable. The concerns are that young people with no prior smoking history may take up vaping before eventually transitioning into tobacco smoking. However, this has not been demonstrated in data for England. Data published by NHS Digital shows a continued decline in smoking prevalence among pupils (aged 11-to-15-years-old) since 1996.</p>
<p>The Children’s Commissioner’s response to ‘Youth vaping: call for evidence’ (2023)</p> <p><u>The Children’s Commissioner’s response to ‘Youth vaping: call for evidence’ Children’s Commissioner for England (childrenscommissioner.gov.uk)</u></p>	<p>In this report, the Children’s Commissioner for England, draws together findings from her recent nationally representative survey of children aged 8-17 and their parents, as well as qualitative findings from The Big Ask, the largest ever survey of children in England.</p>	<p>Outlines how children and young people’s vaping is a fast-growing problem and one that is poorly understood by many parents and services. This report also highlights the glaring gaps in evidence on drivers and the long-term effects of vaping on children’s health.</p> <p>When asked in the survey what the Government should do to make children’s lives better, both children and parents mentioned vaping, its health risks, and the need to stop children from vaping, for example through enforcing bans. Parents also highlighted the need to prevent vapes from attracting children using packaging and flavourings, while children mentioned that</p>

		vaping negatively affected their experiences at school
<p>Children & Young People’s Vaping report, Healthwatch Blackpool (2023)</p> <p><u>Healthwatch-Children-and-Young-Peoples-Vaping-Report.pdf</u> <u>(healthwatchblackpool.co.uk)</u></p>	<p>Healthwatch Blackpool were commissioned by Public Health Blackpool to conduct a comprehensive engagement exercise, to better understand e-cigarette and vaping behaviours amongst the population.</p>	<p>Healthwatch Blackpool engaged with 4170 children and young people across Blackpool on the topic of e-cigarettes and vaping, through a survey and focus groups. Alongside this, 297 local parents and carers and 138 teachers and professionals shared their views via the online survey</p> <p>Findings included:</p> <ul style="list-style-type: none"> • 31% of respondents vape or sometimes vape • 75% of those who vape use disposable vapes • 65% of children and young people prefer fruity flavored vapes • 30% of young people do not know the reason why they or their peers vape
<p>Your voice, Your Health Camden Series: Vaping report (2024)</p>	<p>Healthwatch Camden set out to explore the health concerns of young people between the ages of 13-24years in Camden, in three key areas: Mental Health, Sexual</p>	<p>According to the most recent national survey data, there are now more children aged 11-18 years old who vape regularly than those who smoke normal cigarettes regularly, with numbers increasing steadily over the past few years. Interestingly, the number of</p>

<p><u>Your Voice Your Health Camden Series:</u> <u>Vaping Report April 2024 – Healthwatch Camden</u></p>	<p>Health, Use of E-Cigarettes (Vaping)</p>	<p>children vaping just once or twice is higher than those who vape regularly, and this number has jumped by 50% year on year¹ indicating a trend towards experimentation. The increase in experimentation and regular vaping, is more noticeable in the older age groups (16-19 years).</p> <p>Mental health: We asked participants whether they thought vaping helped with their mental well-being in a positive way (Fig.2.3.). As expected, majority of the responses came from young people who were currently vaping. 13 out of the 24 young people who currently or previously vaped said that vaping had a positive impact on their mental well-being. The growing perception among some young people that vaping relieves stress is a worrying insight, given the risk of poor mental health outcomes of vaping and nicotine. Education about the mental health effects of vaping must include increased awareness about the numerous healthy alternatives and support available to young people.</p>
<p>Notely, Varley, People, Dawkins and Ward (2024) Young People’s use of disposable</p>	<p>Youth use of disposable vapes has increased markedly in the United</p>	<p>Twenty-nine young people aged 16–20 years participated in qualitative interviews. At the</p>

vapes: A qualitative study, Society for the Study of Addiction

<https://doi.org/10.1111/add.16570>

Kingdom in recent years, yet little is known about the motivations, experiences and perceptions of young people themselves. This study aimed to explore young people's experiences and use of disposable vapes.

individual level, participants discussed how characteristics of disposable vapes were important to them—particularly price, accessibility and the attractive designs, colours, names and flavours. Young people frequently engaged in both vaping and tobacco smoking, seeing the behaviours as interchangeable dependent on context, and having inaccurate relative harm perceptions of vaping compared with smoking. Experimentation was widespread and many used vapes as a way of managing stress and anxiety. Vaping was positioned as a social behaviour, common among peers. Parental influence on vaping behaviour was minimal, although vaping initiation could be influenced by family vaping norms. Culturally, vaping was a widespread normalized behaviour. Young people were aware of media reports and potential harms, but were less aware of smoking related harms as a consequence.

Conclusions: Disposable vapes appear to be attractive and accessible to young people in the United Kingdom. Vaping is normalized in this population, despite being seen as

		<p>potentially damaging to health, and vaping and smoking are engaged in interchangeably. Underage sales of vapes are reportedly widespread. Strict regulation, such as banning products or increasing prices, may prompt UK youth to switch from vaping to smoking.</p>
<p>Goldenson et al (2018) 'Associations of ADHD Symptoms with Smoking and Alternative Tobacco Product Use Initiation During Adolescence', <i>Journal of Pediatric Psychology</i>, 43(6), 2018, 613–624</p> <p><u>Associations of ADHD Symptoms With Smoking and Alternative Tobacco Product Use Initiation During Adolescence - PubMed (nih.gov)</u></p>	<p>This study provides new evidence that a well-known risk factor for combustible cigarette use, ADHD symptomatology, is associated with the increased likelihood of e-cigarette initiation during adolescence in survey conducted in 2014–2015.</p>	<p>There is a well-documented association between attention-deficit hyperactivity disorder (ADHD) symptoms and combustible cigarette smoking among adolescents</p> <p>ADHD symptoms may be a risk factor for the increased likelihood of e-cigarette use initiation during high school, as well as single- and poly-product use initiation outcomes. The trajectory shape of e-cigarettes use over time does not appear to differ by ADHD, suggesting that the increased odds of e-cigarette use uptake conferred by ADHD result in a pattern that is similar to the general population of youth who initiate use of e-cigarettes during high school. Targeting ADHD-related behavioural factors, particularly those related to hyperactivity and impulsivity, in pediatric psychology treatment</p>

		<p>and prevention may be beneficial for preventing e-cigarette use.</p>
<p>Khan, Admed, Sarfraz & Farahmand (2023) 'Vaping and Mental Health Conditions in Children: An Umbrella Review', SAGE publications, Substance Abuse: Research and Treatment Volume 17: 1–11</p> <p><u>Vaping and Mental Health Conditions in Children: An Umbrella Review - PubMed (nih.gov)</u></p>	<p>The e-cigarette (EC) epidemic began in the United States (US) in 2007; since 2014 EC is the most commonly used form of tobacco. However, the mental health implications of vaping are grossly unknown. The aim of this umbrella review is to provide a state-of-the-art summary of existing research concerning vaping and mental health conditions in children</p>	<p>This umbrella review included data from 846,510 children aged 21 years or younger, representing a diverse range of ethnicities and geographical backgrounds.</p> <p>Overall, significant associations were found between mental health outcomes, including depression and suicidality, among current EC users and those who had ever used EC. Compared to adolescents who had never used EC, both depression and anxiety were reportedly higher among EC users. Impulsive behaviours, reported as impulsivity, were also found to be correlated with the adoption of EC use.</p> <p>However, there is a lack of evidence regarding the impact of EC use on mental health outcomes in children.</p> <p>This umbrella review highlights the urgent need to further explore the effects of current EC use from a psychiatric and public health perspective</p>

<p>Liebrenz et al (2016) 'Adult attention-deficit/hyperactivity disorder and nicotine withdrawal: a qualitative study of patient perception' BMC Psychiatry (2016) 16:208</p> <p><u>Adult attention-deficit/hyperactivity disorder and nicotine withdrawal: a qualitative study of patient perceptions BMC Psychiatry Full Text (biomedcentral.com)</u></p>	<p>20 participants fulfilling criteria for ADHD and a past or current dependence from nicotine were recruited from the in- and outpatient clinic of the Zurich University Psychiatric Hospital and the Psychiatric Services Aargau (Switzerland). We conducted in-depth interviews to explore their motivations to quit, past experiences with and expectations about quitting using a purposeful sampling plan.</p>	<p>Adult smokers with ADHD had made several attempts to quit, experienced intense withdrawal symptoms, and relapsed early and often. They also often perceived a worsening of ADHD symptoms with nicotine abstinence. We identified three motives to quit smoking: 1) health concerns, 2) the feeling of being addicted, and 3) social factors. Most participants favoured a smoking cessation program specifically designed for individuals with ADHD because they thought ADHD complicated their nicotine withdrawal and that an ADHD-specific smoking cessation program should address specific symptoms of this disorder</p>
<p>Becker & Rice (2021) 'Youth vaping: a review and update on global epidemiology, physical and behavioral health risks, and clinical considerations' European Journal of Pediatrics (2022) 181:453–462</p> <p><u>Youth vaping: a review and update on global epidemiology, physical and behavioral</u></p>	<p>Worldwide, youth electronic cigarette use (vaping) has risen significantly over the past decade. This public health concern has spurred many high-quality studies characterizing country-specific prevalence, risk factors, physical and behavioural health complications, and optimal methods of assessment and counselling for youth vaping.</p>	<p>Youth with mental illness may be attracted to ECs due to beliefs that ECs may help to modify their psychiatric symptoms, in attempts to offset side effects of psychotropic medications, or due to common underlying risk factors for mental illness and substance use</p> <p>Conclusions: Youth vaping is now a well-studied phenomenon with various physical and behavioural health risks, some of which differ from traditional smoking. Although</p>

<p><u>health risks, and clinical considerations European Journal of Pediatrics (springer.com)</u></p>		<p>vaping-specific treatments remain underdeveloped, paediatricians and other youth clinicians can apply the lessons of recent research to counsel youth and their families and prevent long-term complications of vaping-related nicotine addiction.</p>
<p>Action on smoking and health (ASH) Fact Sheet on ‘Use of vapes (e-cigarettes) among young people in Great Britain’, July 2024</p> <p><u>Use-of-vapes-among-young-people-in-Great-Britain-2024.pdf (ash.org.uk)</u></p>	<p>This factsheet analyses how behaviour and attitudes to vapes (e-cigarettes) among young people have changed over time. The ASH Smokefree GB Youth Survey analysis is based on data concerning young people aged 11-18 collected by YouGov for ASH and is carried out in the Spring each year</p>	<p>Rates of vaping; The rates of vaping among 11-17-year-olds appear to have stabilised after a period of increase. The proportion of young people aged 11-17 who have ever vaped has not significantly changed between 2023 (20%) and 2024 (18%).</p> <p>Current vaping among 11-17-year-olds, which includes vaping less than once a month, is 7.2%, and has not significantly increased since 2022.</p> <p>Although our survey suggests the rapid rise in youth (aged 11-17) vaping since the pandemic has stabilised in 2024, it is not yet clearly declining. And although the vast majority (81%) of children aged 11-17 have never tried vaping, over a third of those who have tried vaping have never smoked</p>

		<p>Promotion of e-cigarettes/ vaping: There has been a significant increase in awareness of promotion in shops and online over these years and a decline in those saying they don't see e-cigarettes being advertised</p>
<p>Taylor, Carrasco, Carrasco and Basu (2022) 'Tobacco and ADHD: A Role of MAO-Inhibition in Nicotine Dependence and Alleviation of ADHD Symptoms' Mini review article <i>Frontiers in Neuroscience</i> Vol 16 https://doi.org/10.3389/fnins.2022.845646</p>	<p>Attention-deficit/hyperactivity disorder (ADHD) is a relatively commonly occurring neurodevelopmental disorder affecting approximately 5% of children and young people. The neurobiological mechanisms of ADHD are proposed to particularly centre around increased dopamine receptor availability related to associated symptoms of reduced attention regulation and impulsivity. ADHD is also persistent across the lifespan and associated with a raft of impulsive and health-risk behaviours including substance abuse and smoking. Research highlighting the potentially significant levels of monoamine oxidase (MAO) inhibitory properties in tobacco smoke and e-cigarettes may</p>	<p>Attention-deficit/hyperactivity disorder is associated with increased risk of smoking initiation at an early age, maintenance of smoking, and reduced propensity for smoking cessation for adults, possibly mediated by dopamine receptor activity patterns, in turn mediated by MAO-inhibitory contents and nicotine in cigarettes and e-cigarettes</p> <p>This scoping review demonstrated promising evidence for the additional (or even primary) role of MAO-inhibitory compounds in cigarettes and e-cigarettes in greater vulnerability to smoking abuse and dependence among individuals with ADHD. This hypothesis is based on dual factors: evidence to suggest that MAO-inhibitors in cigarettes and e-cigarettes may have a stronger effect on dopaminergic systems than nicotine</p>

	<p>provide a mechanism for increased tobacco smoke dependence among those with ADHD, in addition to the role of nicotine.</p>	
<p>UK Government. Office for Health Improvements and Disparities, Nicotine vaping in England: 2022 evidence update summary</p> <p><u>Nicotine vaping in England: 2022 evidence update - GOV.UK (www.gov.uk)</u></p>	<p>This report is the eighth in a series of independent reports originally commissioned by Public Health England (PHE) and now the Office for Health Improvement and Disparities (OHID) in the Department of Health and Social Care. The series aims to summarise the evidence on vaping products and to inform policies and regulations.</p>	<p>Our findings of higher absolute exposure to toxicants from vaping, compared with not using any nicotine products, reinforce the need to discourage people who have never smoked from taking up vaping (or smoking). Cuts to government bodies responsible for overseeing vaping products are concerning. The recent increase in young people using disposable vaping products makes this an even greater concern, because if it continues, it could undermine the approach and regulatory framework for vaping products adopted in England. As well as educational materials aimed at older smokers on why and how to vape to stop smoking, educational materials are also needed for young people starting vaping who would otherwise not have smoked, and for those who need support in stopping smoking.</p>

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