

# **The Children's Commissioner's response to 'Youth vaping: call for evidence'**

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June 2023

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## Foreword from Dame Rachel de Souza



I want all children to be able to grow up physically and mentally well, with access to support quickly and locally when they need it. As part of The Big Ask, I asked children about all aspects of their health and wellbeing. I was shocked and concerned to hear from children as young as 12 who told me that vaping was normalised among their peers – even on school premises.

The data in this report interrogates this troubling trend further, underlining that children and young people's vaping is a fast-growing problem – and one that is still poorly understood by many parents and services supporting children.

Both legal and illegal vapes pose risks to children's health and wellbeing, not least because they are often highly addictive. It is deeply worrying to hear accounts from children who now struggle to concentrate for whole lessons, unable to use their vape. Other children are avoiding using school toilets, for fear of peer pressure to join in. Schools have been horrified to discover that vapes confiscated from their students contain dangerously high levels of chemicals like nickel and lead, exposure which can affect the central nervous system and brain development.

This report has also highlighted the glaring gaps in evidence on drivers and the long-term effects of vaping on children's health. For adults overcoming nicotine addiction, vapes may represent a lower-risk alternative to smoking cigarettes. However, the risk calculation for children is not the same. Many

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children who are addicted to vaping have never smoked tobacco, with vaping acting as a gateway rather than a quitting strategy. I am unequivocal in my view that to lead healthy lives, children should not be smoking or vaping. We have failed a generation if we allow these highly addictive, and sometimes dangerous, products to become mainstream.

Both children and parents are crying out for more information about, and regulation of, this 'Wild West' market. It is insidious that these products are intentionally marketed and promoted to children, both online and offline. I strongly welcome the Government's recent move to close the loophole that allows companies to give free vaping samples to children – but this should have never been legal. Other measures, including the new Illicit Vape Enforcement Squad, are also welcome. However, to avoid even more children becoming addicted to these products, we need stricter regulation now. For children for whom it is sadly too late to prevent them from becoming addicted, we must provide swift and non-judgmental health-based support to them.

Children deserve to lead long, happy, healthy lives. The Department for Health and Social Care's consultation on youth vaping is a timely opportunity to listen to both the evidence on the harms and unknown risks of youth vaping, and what children and parents tell us they want and need. I strongly hope it will be the catalyst for change that is so urgently needed.

## Executive Summary

*'At my school, you can see children going in the bathrooms vaping and saying it looks cool.'* –  
**Girl, aged 13, The Big Ask.**

In this report, the Children's Commissioner for England, Dame Rachel de Souza, 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. These findings are new and are presented in response to the call for evidence from the Department for Health and Social Care into children and vaping, to inform evidence-based policy decisions.

Findings from the Children's Commissioner's 2023 survey support existing research that the likelihood of vaping amongst children increases with age. New analysis also suggests that children with existing vulnerabilities, including having a social worker or a disabled parent, are more likely to vape than those who do not.

The majority of children surveyed thought that all types of vapes are harmful to children's health and wellbeing. However, our analysis suggests that children who have vaped were less likely to believe it is harmful than those who haven't.

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 vaping negatively affected their experiences at school.

In The Big Ask, children mentioned vaping in responses to the question 'What do you think stops children/young people in England achieving the things they want to achieve when they grow up?'. Analysis found that children's concerns about vaping fell broadly into three themes: a lack of parental awareness of vaping or support from parents to stop vaping, peer pressure from other children to vape, and the influence of social media on the social acceptability of vaping.

## 1. Background

### 1.1 Prevalence of youth vaping

Vaping is becoming increasingly prevalent among children and presents a number of risks to their health and wellbeing. The latest survey data from 2022 suggests that 16% of 11–17-year-olds had tried vaping, compared to 11% in 2021 and 14% in 2020<sup>1</sup>.

These figures varied by age group: 10% of 11–15-year-olds had tried vaping, compared to 29% of 16–17-year-olds, and 41% of over 18s<sup>2</sup>. The same survey also asked children which type of vape product they used. For the first time, the most frequently used product by children was disposable vapes, which increased from 8% of those who vaped in 2021 to 52% in 2022<sup>3</sup>.

### 1.2 Harmfulness of vaping for children

Current evidence suggests that vapes carry a risk to health through vapour inhalation and nicotine addiction, but lifetime cancer risks from vaping are estimated to be less than 0.5% of the risk of smoking.<sup>4</sup> However, there is very little longitudinal data available on the harmfulness of vaping. The long-term health effects are not yet known and even less is known specifically about the potential harms for young people.

There is additional concern regarding vapes containing nicotine, as a single e-liquid pod can contain as much nicotine as a pack of tobacco cigarettes and lasts on average 600 puffs (depending on the brand) which can be used up in only a few hours of continuous use.<sup>5</sup> Nicotine exposure during the teenage years can harm brain development, impacting learning, memory, and attention until the age of around 25.<sup>6</sup>

The flavours used in vapes are also potentially harmful. Research from the Royal College of Physicians concluded that the vapour from flavoured vapes can be more cytotoxic than unflavoured vapour. For example, Diacetyl, a flavour often used in popcorn, is safe for oral consumption but when heated and inhaled in large doses over long periods of time, can cause irreversible bronchitis.<sup>7</sup>

## 2. The Children's Commissioner's findings from a nationally representative survey of parents and children

The nationally representative survey was completed by 3,593 children aged 8 to 17 in England, and their parents, including boost samples for children receiving Free School Meals (FSM) and children from single parent and ethnic minority households.

The survey provides up to date (March 2023) data on the prevalence of vaping in young people and children's perceptions of the harmfulness of vapes compared to other controlled substances such as NOS (Nitrous Oxide, also known as Laughing Gas) and cigarettes.

The survey also asked parents whether they believed their children had ever vaped/used e-cigarettes, and these responses are directly compared to their child's perceptions of the harmfulness of vaping.

### 2.1 Parent's views on vaping

In our nationally representative survey, we asked parents the following question: **Has your child ever vaped (used e-cigarettes)?**

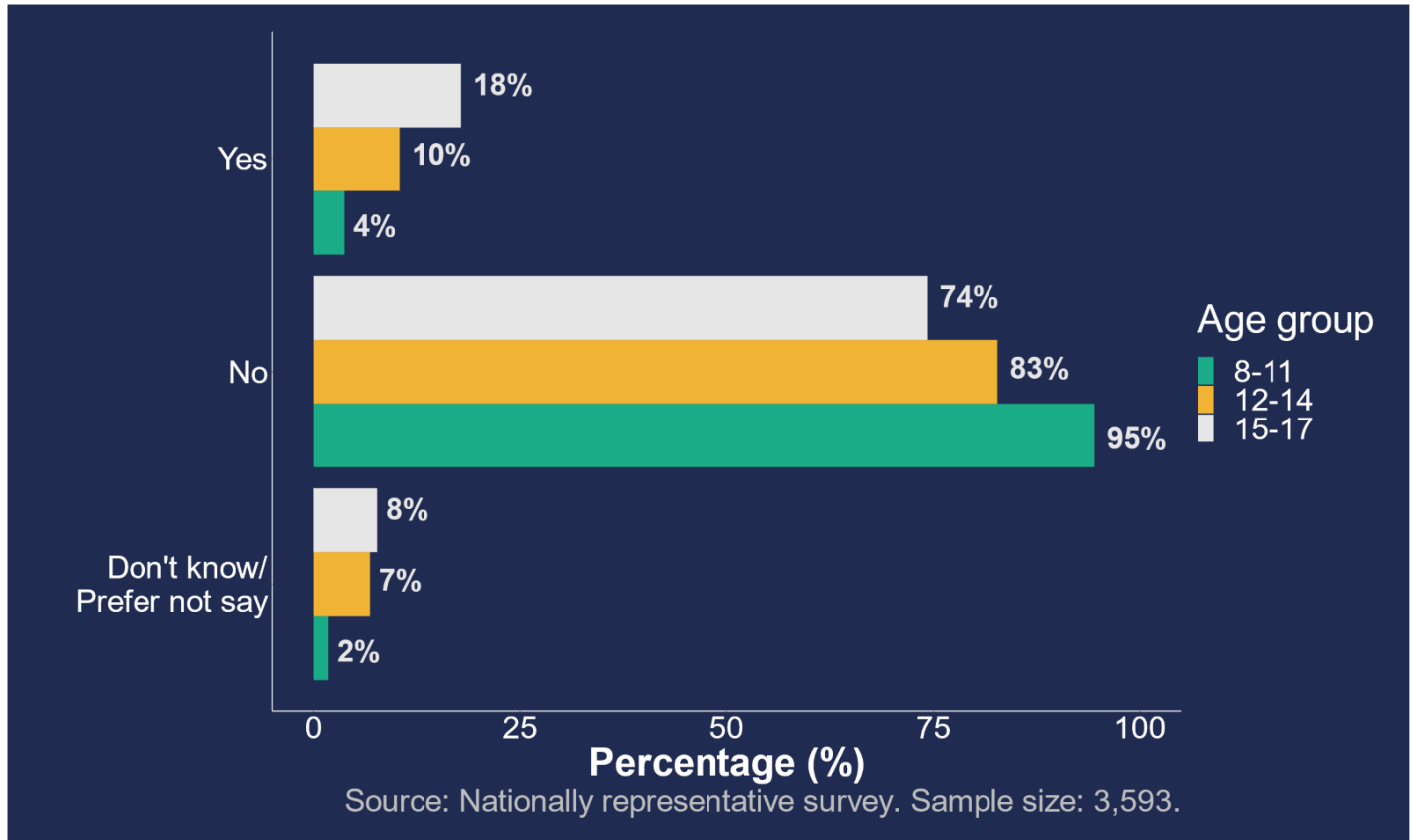
10% of parents were aware that their child had vaped while 85% of parents thought their child had not, and 5% were unsure.<sup>1</sup> The proportion of parents who thought their child had tried vaping increased with child age: 4% for children aged 8-11, 10% for children aged 12-14 and 18% for children aged 15-17 (Figure 1 and Table A1). Given existing estimates of the prevalence of vaping amongst teens (see section 1.2.), our findings suggest that parents' awareness of children's exposure to vaping is fairly accurate.

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<sup>1</sup> The survey was in two parts; the first section was completed by a parent or carer; the parent then handed the survey over to their child aged between 8 and 17 years old. We asked parents to pick one child if they had more than one. Responses to this question related only to the child also completing the survey. See section 5.1.2 for more details.

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**Figure 1. Parents views on whether their child has vaped, by child's age group.**



Further breakdown of parent responses suggest that some groups of children are more at risk of vaping than others. While parents of boys and girls were similarly likely to think their children had vaped (9% and 11% respectively – Table A1), parents of children with a social worker were more likely to think their children vape compared to those without a social worker (29% vs. 7%). Parents who were disabled were also more likely to think their children had vaped, compared to all other children (21% vs 7%).

In our nationally representative survey, we asked parents the following question: **What do you think the Government should do to make children's lives better?**



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In response to this open-text question, 51 parents mentioned at least one keyword related to vaping, smoking and other drugs, and of these parents, 76% (n=39) specifically mentioned vapes or vaping.<sup>11</sup>

The key themes within parents' responses included a desire to stop youth vaping using age restricted bans and the prevention of selling of vapes to children. This was consistent across parents. As one parent identified that the products were being marketed to be appealing to children and said: **'Stop vapes being bright colours and flavours' – Mum of child aged 8.** Another mother requested greater age restrictions on buying vape products: **'Put vapes and cigarettes [restriction] ages up and not let it be too easy buying them' – Mum of child aged 9.** Other parents called for harsher restrictions on those who provide children with vapes and other illegal products: **Stop children being able to buy vapes and get the police to arrest people who provide illegal drugs to children or anyone' – Mum of child aged 15.** Parents also suggested that more information and education was needed on the effects of vapes, and more help and advice was needed for parents to support their children to stop vaping: **'More information on the effects of vaping' – Mum of child aged 15.**

## 2.2 Children's views on vaping

In our nationally representative survey, we asked children the following question: **'To what extent, if at all, do you think the following things are harmful to children's health and wellbeing?'**

- Vapes/e-cigarettes which contain nicotine.
- Vapes/e-cigarettes which contain CBD.
- Vapes/e-cigarettes which do not contain nicotine or CBD.

Children aged 13 and over were asked to rate a series of types of vapes according to their harmfulness to children from 'very harmful' to 'not that harmful'. They were also asked about cigarettes/tobacco and NOS in the same question format.

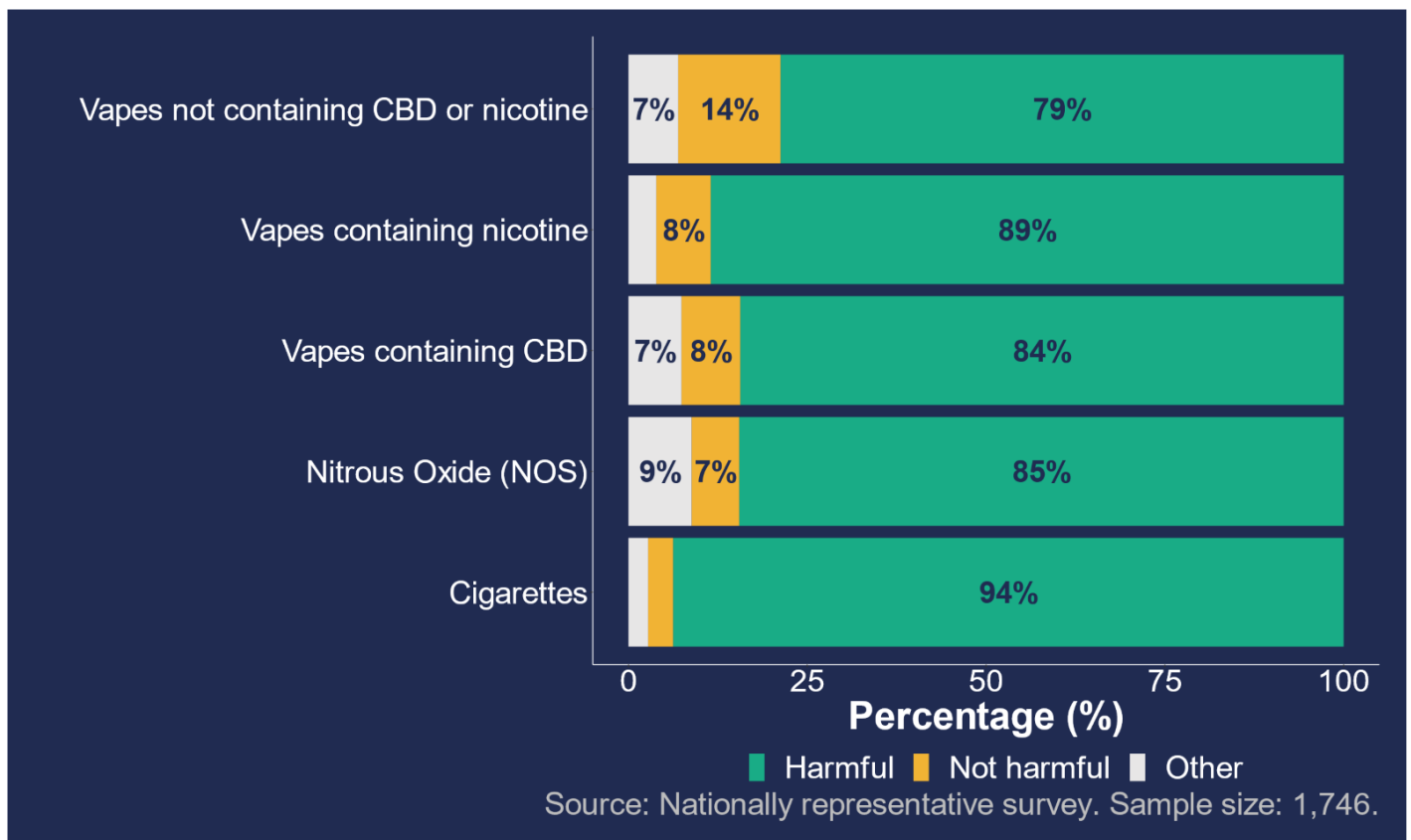
Children were not asked directly about their own use of vapes in this survey as it is illegal for individuals under the age of 18 to purchase these products, meaning self-reported prevalence would likely be inaccurate.

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<sup>11</sup> It should be noted that this number may be inflated by the previous question on vaping but should not have influenced their opinions on the topic.

Amongst types of vapes, vapes containing nicotine were perceived as most harmful to children (Figure 2). 89% of children perceived vapes containing nicotine as harmful and only 8% perceived them as not harmful. Vapes containing CBD were considered the next most harmful (84% harmful, 8% not harmful) then vapes not containing nicotine or CBD (79% harmful, 14% not harmful). By comparison, children perceived cigarettes as more harmful than any form of vape (94% harmful, 3% not harmful) and NOS was perceived as comparably harmful to vapes (85% harmful, 7% not harmful).

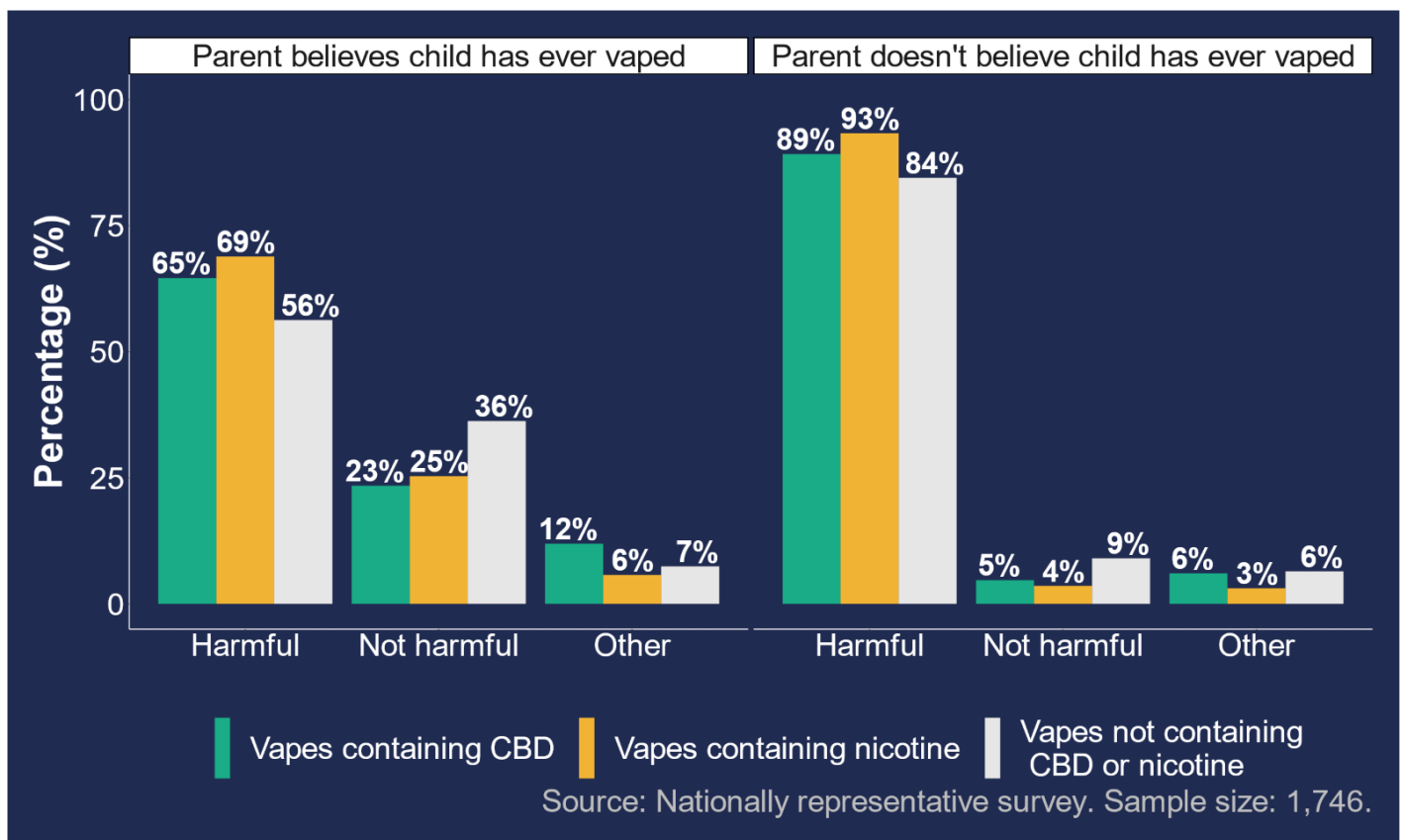
**Figure 2. Children’s perceptions of the harmfulness of three types of vape, compared to smoking cigarettes and using NOS. Note: ‘Other’ is a combination of ‘Don’t know’ and ‘Prefer not to say’. Values below 5% are suppressed for clarity.**



By a wide margin, the biggest effect on whether a child perceived vaping as harmful was whether their parents believed that they had vaped (Table A2). Children with parents who believed that they had vaped were much more likely to not consider vaping as harmful to children. However, even within this group, the majority of children still considered vaping to be harmful (Figure 3).

Figure 3 shows the difference in the perceived harmfulness in all three types of vapes between children whose parent believes that have vaped compared to those whose parent does not believe they have vaped. This suggests that children who vape or have vaped in the past are less likely to believe vapes are harmful to children than those who have not ever vaped.<sup>iii</sup>

**Figure 3. Children’s perceptions of the harmfulness of three types of vape, by whether their parent believes they have ever vaped.**



In our nationally representative survey, we asked children: **‘What do you think the Government should do to make children’s lives better?’**

<sup>iii</sup> It should be noted that children who vape without their parent’s knowledge are not captured in this analysis and could perceive the harmfulness of vaping differently to those whose parents are aware.

Of the responses that included keywords related to vaping, smoking or other drugs, all were negative in sentiment. For example, one 14-year-old boy suggested the Government should: **'Ban smoking and vaping completely'**. Of these children, half mentioned vaping specifically, most often in the context of stopping children vaping. For example: **'Have harsher restrictions on vaping/smoking etc.'** - **Girl, aged 17**. Children also told us that vaping negatively affected their experiences of school: **'vaping is horrible. I can't use the toilets at school because everyone is vaping in there.'** – **Boy, aged 14**.

## 3. Findings from The Big Ask

The Big Ask, collected over 550,000 responses from children across England between April-May 2021, including over 250,000 open text responses to the question: **‘What do you think stops children/young people in England achieving the things they want to achieve when they grow up?’**.

### 3.1 Mentions of Vaping

Some individual responses to this free-text question mentioned ‘vape’ or ‘vaping’. It is important to note that, unlike the 2023 survey, vaping was not mentioned elsewhere in The Big Ask and so these mentions are unprompted, implying that the topic is a priority for these young people. The average age of children who mentioned vaping was 13 years old, and girls and boys were similarly likely to mention vaping (17 girls, 16 boys). None of the children who mentioned vaping also mentioned nicotine or CBD.

Through analysis of the responses that mentioned vaping, three key themes emerged: a lack of parental awareness of vaping or support from parents to stop vaping; peer pressure from other children to vape; and the influence of social media on the social acceptability of vaping. Each of the themes are explored below, including quotes from young people.

#### 3.1.1. Parental awareness

A girl mentioned that parents are often unaware of vaping, which sometimes happened at school, in areas such as the bathrooms: **‘... Also, it’s their parents not being aware of anything such as if they smoke or take drugs in fact in my school, you can see children going in the bathrooms vaping and saying it looks cool...’** – Girl, aged 13. A 12-year-old boy said that parents might be aware of children vaping but allow them to do it: **‘Kids’ parents letting them do what they want (smoking, vaping, etc.)’**.

#### 3.1.2. Peer pressure

Children also mentioned the influence of peer pressure in relation to vaping, and that vaping was synonymous with being ‘cool’ or ‘popular’ both within and outside of school. For example, one boy said: **‘...I’ve also noticed how some of the popular kids in my school have found their interest in vapes,**

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**drugs and that speaks for itself and most of us are only 13!** – **Boy, aged 13.** Another girl, aged 16, said: **'...In some areas it is cool to perform badly/ drink/ vape - people don't achieve well as they want to fit in.'**

### **3.1.3. Social media**

One girl mentioned the glamorisation of vaping, as well as doing drugs, smoking and teenage pregnancy on social media, and the influence this has over children from a young age: **'I believe many children are being influenced to do wrong things because social media is promoting them such as drugs, teen pregnancy, smoking and vaping etc. Some of these things are seen as cool at a young age making want to do it...'** – **Girl, aged 12.**

## 4. Conclusions

Growing evidence suggests a consistent rise in the proportion of children vaping regularly in England, posing a potentially significant issue for children's health.

The analysis for this report shows for the first time that certain more vulnerable groups of children, such as those with a social worker or with a disabled parent, are more likely to vape. It also shows that children who have vaped are less likely to believe that vapes are harmful to children, compared to those who have never tried a vape.

It is clear from speaking to children that alongside the potential harm to children's physical health, vaping is potentially affecting their well-being, including their ability to participate fully in the classroom, and feel safe at school. Children have expressed concern about being peer-pressured into vaping and being exposed to promotion of vaping over social media. Parents and children alike want to see change when it comes to vaping.

### 4.1 Recommendations

#### **Increasing awareness of vaping among children and teachers**

The CCo welcomes that the health risks of vaping will be included in Relationships, Sex and Health Education (RSHE) lessons, as part of the Government's ongoing review of RSHE, in order to further discourage children from taking up or continuing vaping. Updates to the statutory guidance should make clear the risks of addiction, in terms of physical and mental health, as well as financial risks. It should also be clear about the distinct risks associated with illegal vapes.

#### **Increasing awareness of vaping among parents**

DHSC and DfE should produce separate information for parents, to increase awareness of vaping and e-cigarettes, and how they can speak to their children about the risks of vaping.

#### **Improving understanding of reasons for vaping**

DHSC should commission further research to understand the drivers of vaping among children, and opportunities to prevent children from vaping and provide support. Further research should seek to

understand why prevalence of use is higher among particular cohorts of children, for example children who have a social worker and/or a disabled parent. It should also aim to provide robust evidence on drivers of children's vaping, such as any relationship between being exposed to online content involving vaping on online platforms and how vapes are marketed.

### **Support for children with nicotine addiction**

NHS should provide non-judgemental support to children who are addicted to smoking/vaping. As part of their Joint Forward Plans, Integrated Care Boards should identify levels of need in their local area, and pathways for information and support for children.

### **Marketing of vapes**

The CCo welcomes the recent Government announcement that shops in England will no longer be able to offer free samples of vaping products to children – which should have never been legal. However, the Government should also consider the following measures:

- Vapes should be sold in plain packaging.
- Age-of-sale signage on vaping products should be mandated in the same way that it currently is for cigarette products.
- The Government should ban the vaping industry from selling 'nicotine-free' vapes to under 18s.
- The new Illicit Vape Enforcement Squad should update local Trading Standards to make on-the-spot fines and fixed penalty notices for shops selling vapes to under 18s illegally easier.
- A ban on disposable vapes.



## 5. Methodology

This report combines findings from two surveys: The Big Ask, conducted in April-May 2021 and a nationally representative survey of children and their parents conducted in March 2023.

### 5.1 Data collection

#### 5.1.1 The Big Ask

The Big Ask was the biggest ever survey of children, with over half a million responses. The survey was open to any child in England aged 4–17 and was launched online between April and May 2021, running for six weeks. It was a publicly available survey and children’s participation was anonymous and voluntary, to ensure that as many children could be reached as possible, and they could feel comfortable speaking freely. As the age range crosses several developmental levels, different survey forms were designed for the age groups 4-5, 6-8, 9-12 and 13-17.

This report includes only responses from children aged 6 to 17, as children within this age group completed surveys with one qualitative question. The wording of the question varied by age group, but the questions were designed to capture the same theme, allowing the responses to be analysed as a single set of qualitative responses.

The age 6-8 survey asked: **‘If you could change anything to make your life better when you grow up, what would it be?’**

The age 9-12 and age 13-17 surveys asked: **‘What do you think stops children/young people in England achieving the things they want to achieve when they grow up?’**

All responses were combined into a single dataset, alongside demographic and quantitative data collected during the survey.

#### 5.1.2 Nationally representative survey

The CCo commissioned a nationally representative survey of 3,593 children aged between 8 and 17 years old and their parents. The total sample size includes additional boost samples of single parent

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households, ethnic minority households and households with children receiving free school meals (FSM). The survey was conducted in March 2023.

The survey used a custom accessible theme and was designed to take respondents less than 15 minutes to complete. The survey was in two parts; the first section was completed by a parent or carer, the parent then handed the survey over to their child aged between 8 and 17 years old, though some questions were only shown to older children. We asked parents to pick one child, if they had more than one. The survey findings have been weighted to be nationally representative by the child's age and gender, and the geographic region of the household.

**Table 1. Overview of sample demographics, including age, gender and ethnic group and household region at the time of the survey.**

Demographic variable	Unweighted count	Weighted count	Weighted percent of sample	National population*
<b>Age group</b>				
8-11	1,507	1,471	41%	41%
12-15	1,096	1,084	30%	40%
16-17	990	1,038	29%	19%
<b>Gender</b>				
Female	1,761	1,789	50%	51%
Male	1,821	1,789	50%	49%
<b>Region</b>				
East Midlands	334	305	8%	9%
East of England	315	405	11%	11%
London	510	562	16%	16%
North East	168	162	5%	5%
North West	498	477	13%	13%
South East	621	597	17%	16%
South West	332	337	9%	10%
West Midlands	416	396	11%	11%

Yorkshire & The Humber	399	351	10%	10%
<b><i>Ethnic group</i></b>				
Asian background	285	286	8%	9%
Black background	161	164	5%	4%
Mixed/multiple ethnic background	128	131	4%	3%
White	2,989	2,980	83%	82%
Other ethnicities	22	23	1%	2%
I don't know/ Prefer not to say	8	8	<1%	-
<b>Total sample</b>	<b>3,593</b>	<b>3,593</b>	-	-

\*National population estimates for age, gender and region are calculated using the [Overview of the UK population – Office for National Statistics \(ons.gov.uk\)](#) and ethnicity is calculated using the [2021 UK Census](#).

## 5.2 Data analysis

All analysis included in this report was conducted in R with weights applied to all analysis unless otherwise stated. Significance testing was conducted using the 'weights' package.

Relevant quotes for both The Big Ask and nationally representative survey were searched within R using the 'tm' package<sup>8</sup>. All text data was converted to lowercase and punctuation was removed for consistency and allow the extraction of quotes using a series of keywords relating to vaping, smoking and drugs. Quotes were extracted using the following keywords: 'vape, vaping, smoking, cigarette, cbd, nicotine, drug, drinking, alcohol'.

## Annex

**Table A1. Binomial regression results on the factors explaining variation in parents' perceptions of whether their child had ever vaped.**

<i>Predictors</i>	<b>Parent's perceptions of whether their child has ever vaped</b>		
	<i>Estimate</i>	<i>Conf. Int (95%)</i>	<i>P-Value</i>
(Intercept)	0.02	0.02 – 0.02	<b>&lt;0.001</b>
Child's gender [Male]	0.74	0.70 – 0.77	<b>&lt;0.001</b>
Child's age group [12-14]	3.31	3.08 – 3.56	<b>&lt;0.001</b>
Child's age group [15-17]	6.72	6.29 – 7.18	<b>&lt;0.001</b>
Child receives FSM [Yes]	1.64	1.56 – 1.73	<b>&lt;0.001</b>
Child has SEND [Yes]	1.36	1.28 – 1.43	<b>&lt;0.001</b>
Child has a social worker [Yes]	3.82	3.61 – 4.05	<b>&lt;0.001</b>
Parent has a mental or physical disability [Yes]	2.42	2.30 – 2.54	<b>&lt;0.001</b>
Observations	3212		
R <sup>2</sup> Tjur	0.155		

**Table A2. Binomial regression results on the factors explaining variation in the perceived harmfulness of three types of vape products.**

### Perceived harmfulness of vaping

<i>Predictor</i>	<b>Vapes without nicotine or CBD</b>			<b>Vapes with nicotine</b>			<b>Vapes with CBD</b>		
	<i>Estimate</i>	<i>Conf. Int (95%)</i>	<i>P-Value</i>	<i>Estimate</i>	<i>Conf. Int (95%)</i>	<i>P-Value</i>	<i>Estimate</i>	<i>Conf. Int (95%)</i>	<i>P-Value</i>
(Intercept)	1.7	1.6 – 1.9	<b>&lt;0.001</b>	2.5	2.3 – 2.8	<b>&lt;0.001</b>	3.4	3.1 – 3.7	<b>&lt;0.001</b>
Child's gender [Male]	0.9	0.8 – 0.9	<b>&lt;0.001</b>	1.2	1.1 – 1.3	<b>&lt;0.001</b>	1.1	1.0 – 1.2	<b>0.023</b>
Child's age group [15-17]	0.8	0.8 – 0.9	<b>&lt;0.001</b>	1.3	1.2 – 1.4	<b>&lt;0.001</b>	1.2	1.1 – 1.3	<b>&lt;0.001</b>

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Whether child receives FSM [Yes]	1.1	1.0 – 1.2	<b>0.001</b>	0.8	0.8 – 0.9	<b>&lt;0.001</b>	0.7	0.7 – 0.8	<b>&lt;0.001</b>
Whether child has SEND [Yes]	1.1	1.0 – 1.2	<b>0.007</b>	1.1	1.0 – 1.2	<b>0.011</b>	0.8	0.8 – 0.9	<b>&lt;0.001</b>
Whether child has a social worker [Yes]	0.9	0.9 – 1.0	0.166	0.7	0.7 – 0.8	<b>&lt;0.001</b>	0.7	0.6 – 0.7	<b>&lt;0.001</b>
Parent believes child has ever vaped [No]	5.9	5.6 – 6.3	<b>&lt;0.001</b>	8.5	7.9 – 9.2	<b>&lt;0.001</b>	5.5	5.1 – 5.9	<b>&lt;0.001</b>
Observations		1431			1478			1425	
R <sup>2</sup> Tjur		0.101			0.106			0.088	

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## 6. References

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<sup>1</sup> Action on Smoking and Health (ASH), 2022. Use of e-cigarettes (vapes) among young people in Great Britain. [Link](#). Accessed 16/05/2023.

<sup>2</sup> Action on Smoking and Health (ASH), 2022. Use of e-cigarettes (vapes) among young people in Great Britain. [Link](#). Accessed 16/05/2023.

<sup>3</sup> Action on Smoking and Health (ASH), 2022. Use of e-cigarettes (vapes) among young people in Great Britain. [Link](#). Accessed 16/05/2023.

<sup>4</sup> Stephens, W. E, 2017. Comparing the cancer potencies of emissions from vapourised nicotine products including e-cigarettes with those of tobacco smoke. *Tobacco Control*. [Link](#)

<sup>5</sup> Vaping 101: How long do vapes last. [Link](#)

<sup>6</sup> Leslie FM, 2020. Unique, long-term effects of nicotine on adolescent brain. *Pharmacol Biochem Behav*. [Link](#)

<sup>7</sup> Royal College of Physicians, 2016. Nicotine without smoke: Tobacco harm reduction. [Link](#).

<sup>8</sup> Feinerer I, Hornik K, 2023. *tm: Text Mining Package*. R package version 0.7-11. [Link](#).



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