

Use of e-cigarettes (vapes) among young people in Great Britain

July 2022

Summary of key findings

The evolving youth use of e-cigarettes in Britain is monitored using the ASH Smokefree GB survey of 11-18 year olds 2013-2022 (see Appendix 2 for methodology), in the context of changes in tobacco use and the regulation of e-cigarettes (see Appendix 1). We present the results for 11-17 year olds separately from 18 year olds. It is an offence to sell e-cigarettes to children under 18 in the United Kingdom.

USE AND AWARENESS OF E-CIGARETTES

- A large majority of 11-17 year olds have never tried or are unaware of e-cigarettes (83.8%).
- In 2022, 15.8% of 11-17 year olds had tried vaping, compared to 11.2% in 2021 and 13.9% in 2020.
- In 2022, 7.0% of 11-17 year olds were current users, compared to 3.3% in 2021 and 4.1% in 2020.
- Children under 16 are least likely to try e-cigarettes. 10.4% of 11-15 year olds have tried vaping, compared to 29.1% of 16-17 year olds. Among 18 year olds 40.8% report having tried an e-cigarette.
- Use among 11-17 year olds who have never smoked remains low and largely experimental, while 7.5% of never smokers have tried an e-cigarette in 2022 only 1.7% report at least monthly use.

ATTITUDES TOWARDS VAPING

- Reasons for using e-cigarettes differ between children who smoke and those who haven't. While children who haven't smoked are significantly more likely to report their main reason for using one was 'just to give it a try' (65.4%) among those who smoke they are significantly more likely to report that they 'enjoy the experience' (17.5%) are 'trying to quit smoking' (10.7%) or are 'addicted to them' (10.3%).
- The misperception that e-cigarettes are more than or equally harmful as tobacco cigarettes rose from 2013 onwards and in 2022 was 40.9%, the same as in 2020. Only 42.1% of 11-17 year olds in 2022 believed that e-cigarettes were less harmful than cigarettes.

MAIN SOURCE AND TYPE OF PRODUCT USED

- In 2022 for the first time the most frequently used product was a disposable vape (52.0% compared to 7.7% in 2021), with the most popular brands by far being Elf Bar and Geek Bar.
- The main source for both cigarettes and e-cigarettes is shops. 51.9% of 11-17 year olds get their cigarettes from shops and 46.5% get their e-cigarettes from shops.

In conclusion, use of e-cigarettes has increased in 2022 compared to 2021. However, use among never smokers remains low and mostly experimental. Likelihood of trying or currently using e-cigarettes increases with age and smoking status. The big increase in the use of disposable products has happened concurrently with higher levels of youth use, although the survey is cross sectional and so does not prove this is causal in either direction. Continued surveillance is needed.

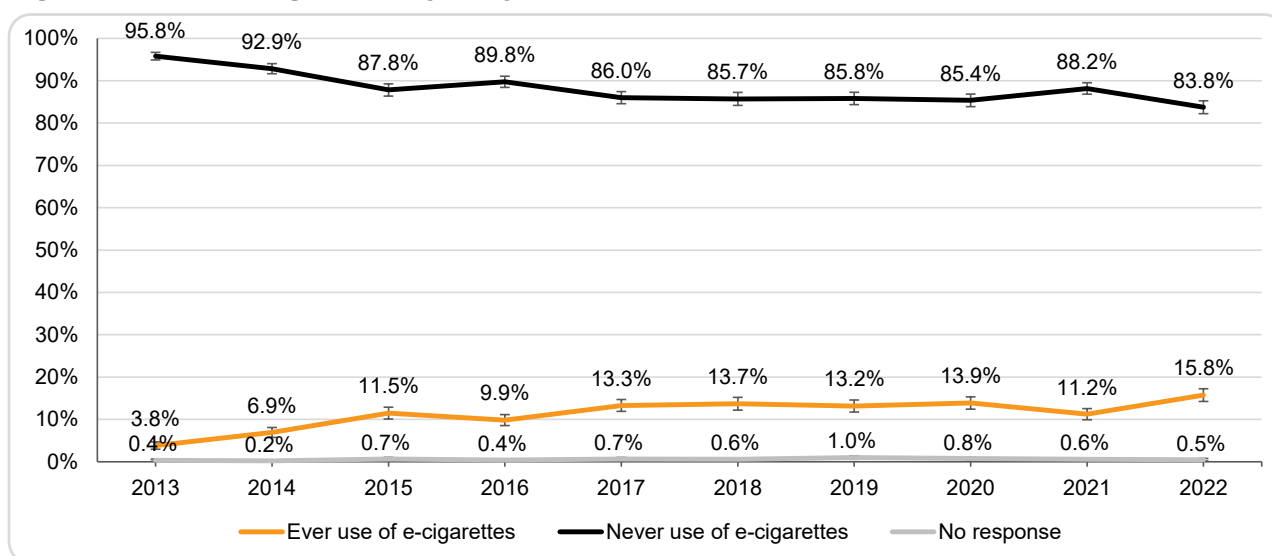
Introduction

Unless otherwise specified the data are from the ASH smokefree GB survey of 11-17 year olds 2013-2022 (for methodology see Appendix 2). For more information on adult vaping see our fact sheet on adult use.¹ For a summary of regulations on e-cigarettes see Appendix 1.

Awareness of e-cigarettes is high but regular use remains very low

Awareness of e-cigarettes amongst young people has risen significantly from 2013 when 64% of 11-17 year olds were aware of e-cigarettes to 2015 when it reached 91%. It has remained at a similar level since then: in 2022 the rate of awareness of e-cigarettes in young people was 90%.

Figure 1. Use of e-cigarettes by GB youth (11-17), 2013-2022

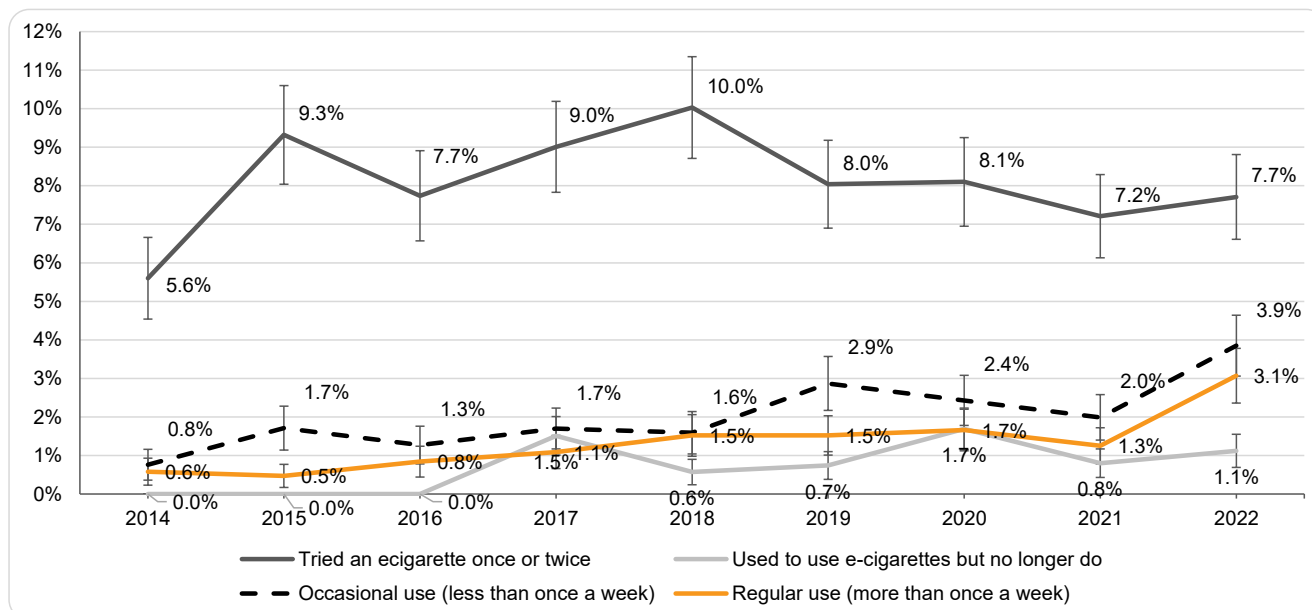


ASH Smokefree GB Youth Surveys, 2013-2022. Unweighted base: All 11-17 year olds (2013 = 1,895, 2014 = 1,817, 2015 = 1,834, 2016 = 1,735, 2017 = 2,151, 2018 = 1,807, 2019 = 1,982, 2020 = 2,029, 2021 = 2,109, 2022 = 2,111).

A large majority of 11-17 year olds have never tried e-cigarettes (83.8%). In 2022, 15.8% of 11-17 year olds had tried vaping, compared to 11.3% in 2021 and 13.9% in 2020. Data collection for 2020 was mainly prior to the first lockdown while data collection in 2021 followed almost a year of the pandemic, as we were beginning to emerge from the third lockdown. Lower levels of vaping in 2021 may therefore be associated with the impact of the pandemic on young people's lives.

Regular use of e-cigarettes has significantly increased, although it continues to be low in young people aged 11-17 overall. In 2022, 3.1% of respondents reported regular use of e-cigarettes (more than once a week) and 3.9% reported occasional use (less than once a week). Most use among 11-17 year olds remains experimental (tried an e-cigarette one or twice); just under half of all use among 11-17 year olds falls into this category.

Figure 2. Level of use of e-cigarettes, GB youth (11-17), 2014-2022



ASH Smokefree GB Youth Surveys, 2013-2022. Unweighted base: 11-17 year old respondents who said they have tried an e-cigarette (2014=118, 2015=210, 2016=168, 2017=279, 2018=254, 2019=301, 2020=327, 2021=266, 2022=390).

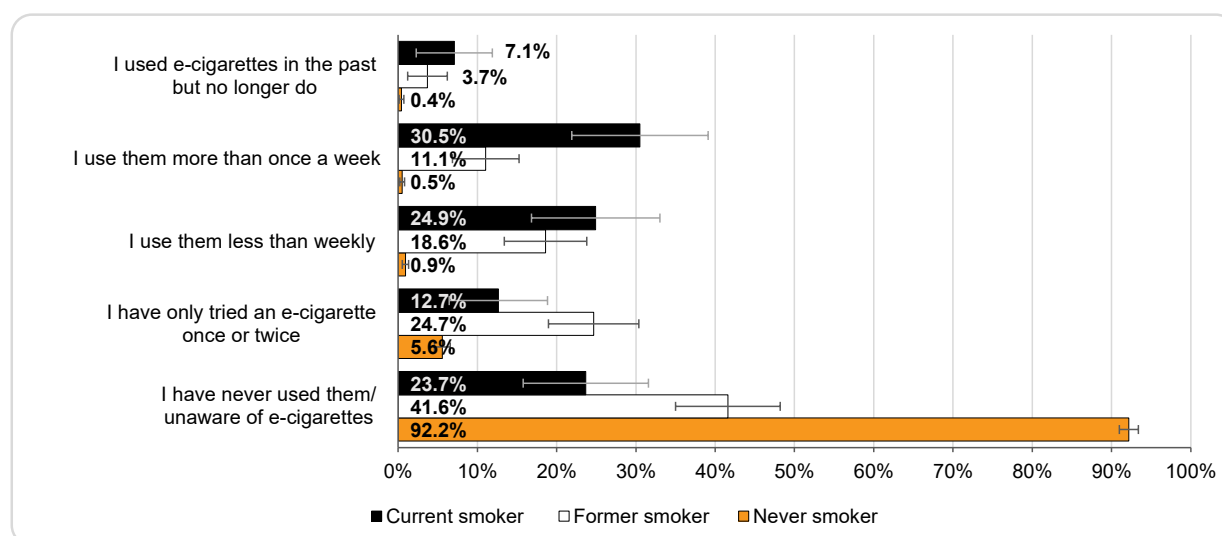
Regular use of e-cigarettes remains rare in young never smokers

Use of e-cigarettes remains largely confined to current or former smokers. The overwhelming majority, 92.2% in total, of 11-17 year old never smokers have either never used an e-cigarette (83.9%) or are not aware of them (8.2%). (Figure 3)

Of 11-17 year old never smokers, 7.5% have ever tried an e-cigarette that includes 5.6% who have tried e-cigarettes once or twice, 0.9% use them less than weekly, and 0.5% use e-cigarettes more than once a week.

Current use of e-cigarettes among 11-17 year olds is considerably higher among current smokers (55.4%) than former smokers (29.7%).

Figure 3. Use of e-cigarettes by tobacco smoking status, GB youth (11-17), 2022

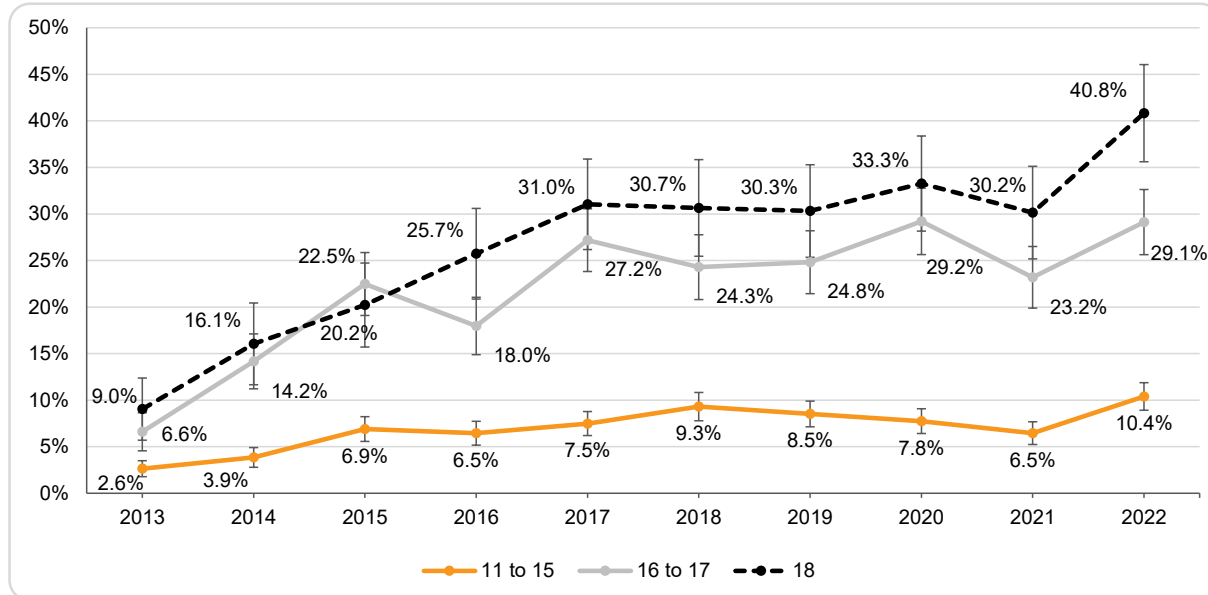


ASH Smokefree GB Youth Survey 11-17 year olds, 2022 (Unweighted bases: Never smokers = 1,723, former smokers = 229, current smokers = 118).

There is a gradient in use by age

The prevalence of regular use and experimentation increases with age. Ever use has increased across all age groups but is highest in the older age groups with 10.4% of 11 to 15 year olds ever having vaped compared with 29.1% of 16 and 17 year olds and 40.8% of 18 year olds (Figure 4).

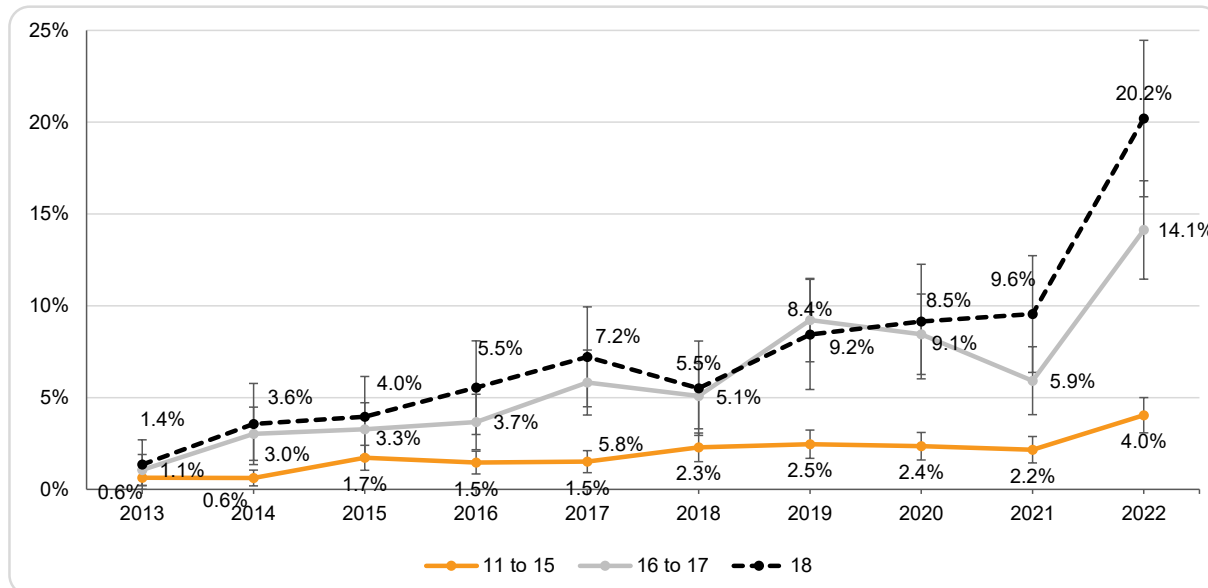
Figure 4. Ever use of e-cigarettes by age, GB youth (11-15, 16-17 and 18), 2013-2022



ASH Smokefree GB Youth Survey, 2022. Unweighted bases: All 11-18 year olds (counts in table in the appendix).

Of 11-15 year olds only 4.0% currently use e-cigarettes compared to 14.1% of 16-17 year olds (Figure 4). Current use is defined as any use of e-cigarettes, thus excluding those only trying them once or twice or saying 'I used to use e-cigarettes in the past but no longer do'.

Figure 5. Current use of e-cigarettes by age, GB youth (11-15, 16-17 and 18), 2013-2022

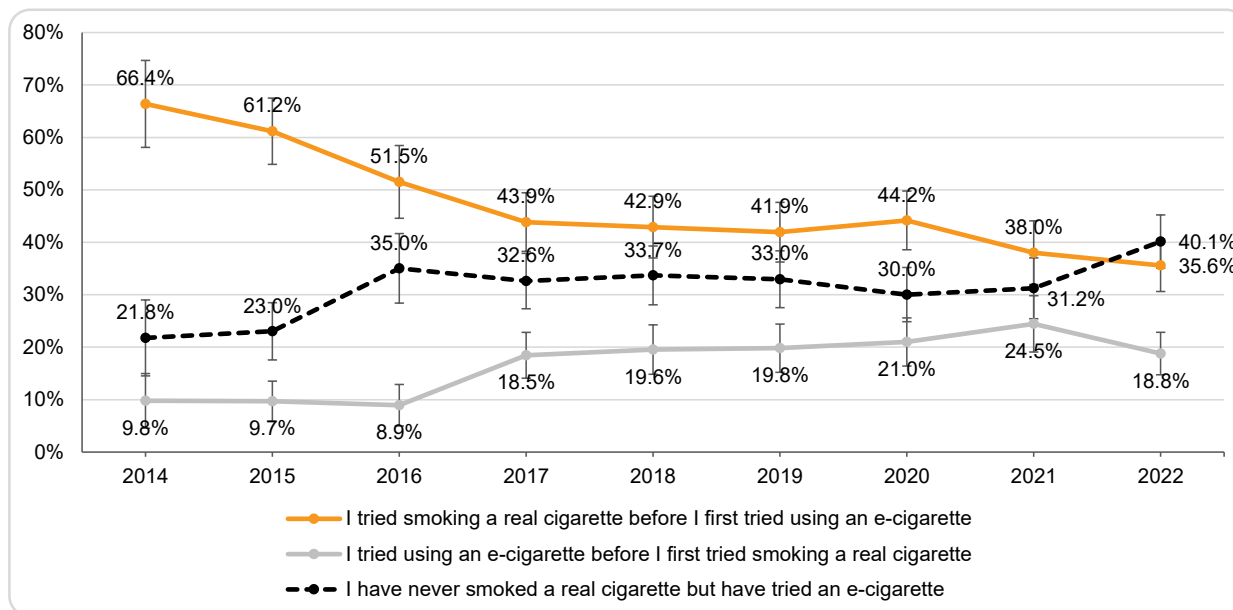


ASH Smokefree GB Youth Survey, 2022. Unweighted bases: All 11-18 year olds (counts in table in the appendix).

Order of use of e-cigarettes and tobacco cigarettes among 11-17 year olds

Over time the order of use between tobacco cigarettes and e-cigarettes has changed. The proportion of 11-17 year olds smoking before vaping has decreased: in 2022, 35.6% who had tried e-cigarettes had tried a tobacco cigarette beforehand (66.4% in 2014). This is the lowest level recorded by this survey. The proportion of young people trying e-cigarettes first increased to its highest recorded level at 24.5% in 2021 (from 9.8% in 2014) but has fallen in 2022 to 18.8%. Among 11-17 year olds who have tried vaping a greater proportion have never smoked (40.1%) than smoked (35.6%) in 2022 for the first time.

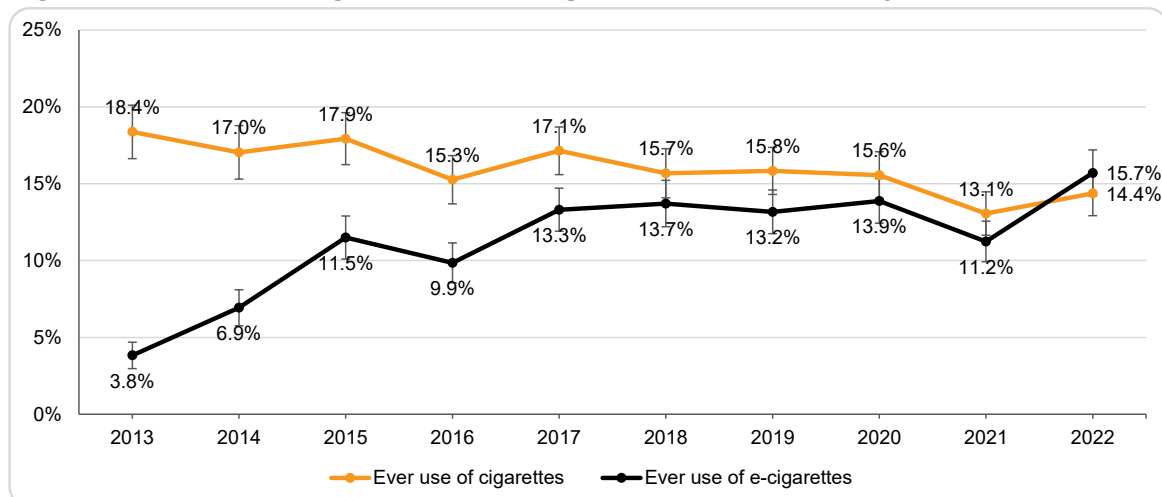
Figure 6. Order of use between tobacco cigarettes and e-cigarettes, GB youth who had tried an e-cigarette (11-17), 2014-2022



ASH Smokefree GB Youth Surveys, 2014-2022 Respondents who said they have tried an e-cigarette (Unweighted bases: 2014 = 118, 2015 = 210, 2016 = 168, 2017 = 279, 2018 = 254, 2019 = 301, 2020 = 327, 2021=266, 2022 = 390).

As noted above in 2022 there has been a significant increase in ever use of e-cigarettes among 11-17 year olds compared to 2021. While there is a small increase in smoking this is not significant and is in line with the downward trend prior to the pandemic.

Figure 7. Ever use of cigarettes and e-cigarettes over time, GB youth (11-17), 2013-2022



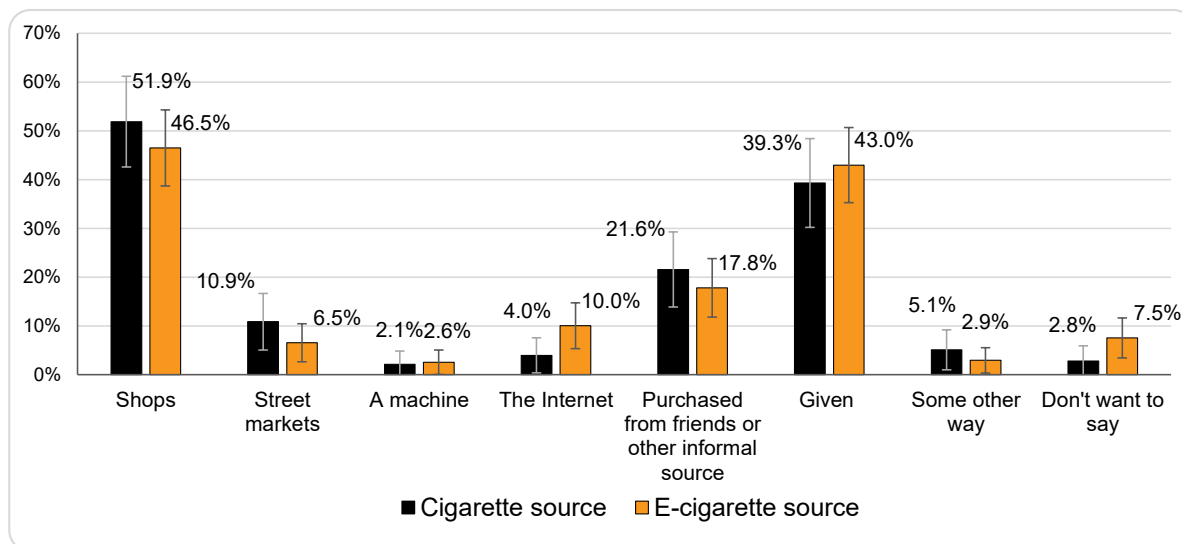
ASH Smokefree GB Youth Survey(s), 2013-2022. Unweighted base: All 11-17 year olds (2013 = 1,895, 2014 = 1,817, 2015 = 1,834, 2016 = 1,735, 2017 = 2,151, 2018 = 1,807, 2019 = 1,982, 2020 = 2,029, 2021=2,109, 2022 = 2,111).

How underage users access e-cigarettes and cigarettes

The sale of tobacco and e-cigarettes to people under the age of 18 is an offence, however the most common way to access both cigarettes and e-cigarettes among 11-17 year olds was purchase from shops with 51.9% buying cigarettes and 46.5% buying e-cigarettes. The next most common source was being given them, at 39.3% for cigarettes, 43.0% for e-cigarettes.

Online purchases of e-cigarettes (10.0%) are much more common than cigarettes (4.0%), while street markets are a more common source of cigarettes (10.9%) than e-cigarettes (6.5%). Young people tend to be given their first cigarette (73.5%) and their first e-cigarette (69.4%), most frequently by peers.

Figure 8. Sources of cigarettes and e-cigarettes among young people 2022 (11-17 years)



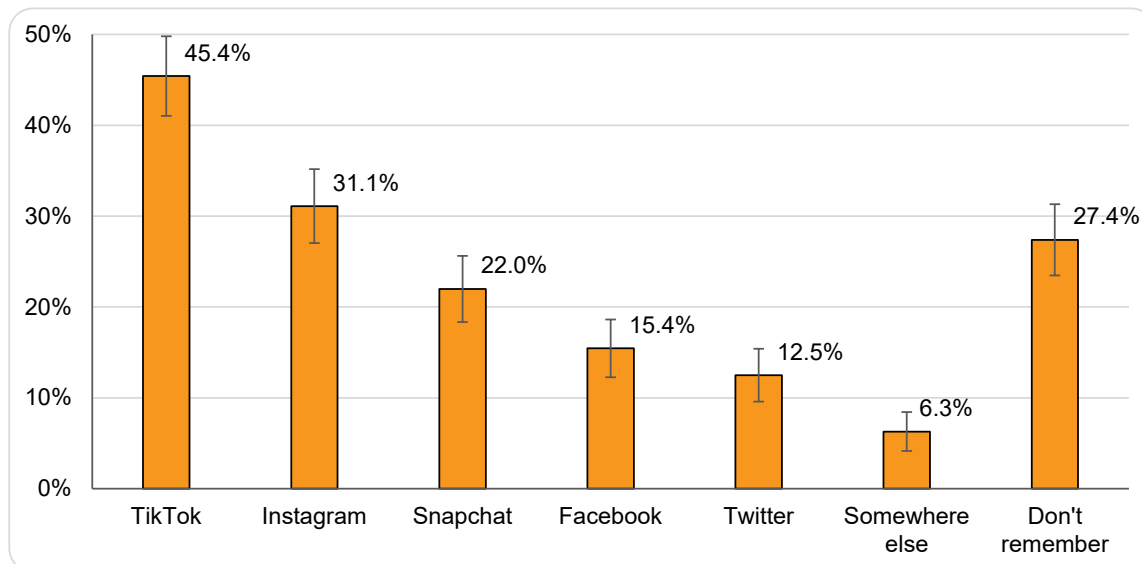
ASH Smokefree GB Youth Survey, 2022. Unweighted base: respondents (11-17) who currently use cigarettes: 118, respondents (11-17) who currently use e-cigarettes: 172. Percentages have been rounded to the decimal place. Respondents allowed to tick more than one box if more than one usual source.

Promotion of e-cigarettes

For the first time in 2022 the survey asked 11-17 year olds about their awareness of the promotion of e-cigarette. Over half of all 11-17 year olds reported awareness of some form of e-cigarette promotion (55.8%). Those who have ever used an e-cigarette are more likely to report awareness of e-cigarette promotion (71.5%) than those who have not (52.7%), however, the sources of exposure were common for all groups; in shops (46.5% ever vapers, 34.8% never vapers) and online (35.8% ever vapers, 21.7% never vapers).

Of those who reported seeing e-cigarettes promoted online the most common place was on TikTok (45.4%). (Figure 9, next page)

Figure 9. Location of online e-cigarette promotion seen 2022 (11-17)



In the 2021 survey images of different e-cigarette starter packs were shown to 11-18 year old respondents to our survey who were asked to tell us which packs they would be interested in trying. Respondents were randomly allocated either to packs with their usual brand imagery or packs with the brand imagery removed, but the brand name retained. The experiment sought to assess if young people were more likely to be interested in packs with brand imagery than those without.

Among those shown the branded packs 40% expressed a preference for one of the brands. Among those shown packs without brand imagery 32% expressed a preference – a statistically significant difference. Among the children who had never tried an e-cigarette the difference was slightly larger with 37% expressing a preference when shown the fully branded packs and 27% expressing a preference when shown the packs without brand imagery.

We showed the same packs to respondents in our survey of adult (18+ years). Among current smokers there was no statistically significant difference in trying an e-cigarette starter pack whether it had brand imagery (31%) or not (27%). Smokers who had never vaped were less likely to express a preference for packs with brand imagery removed than smokers who had tried vaping (13% compared to 36%). However, again there was no statistically significant difference between packs with brand imagery (14%) and those without (12%).

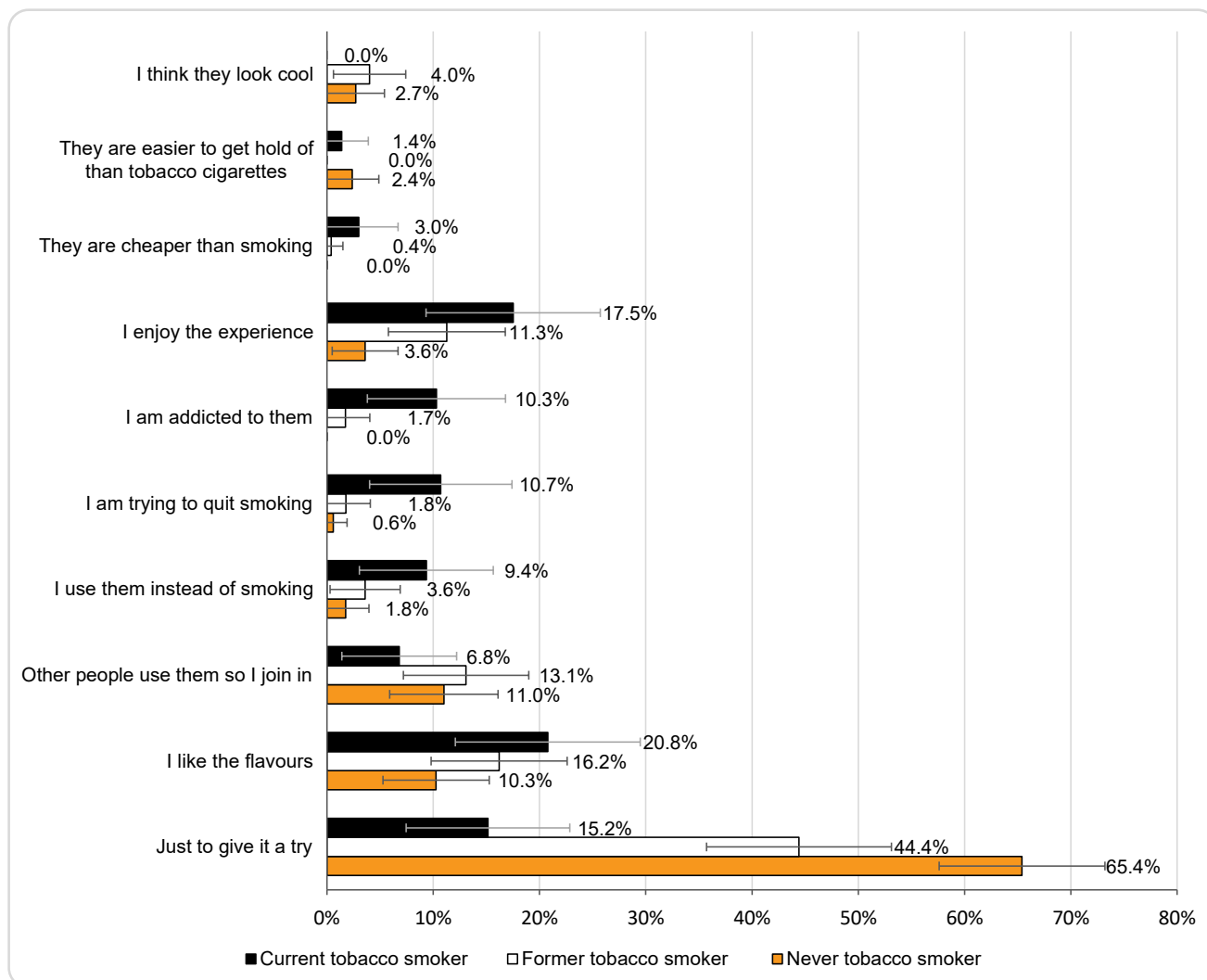
These findings suggest that removing brand imagery could have an impact in reducing the appeal of e-cigarettes to young people without compromising their appeal to adult smokers.

Reasons why 11-17 year olds experiment with, and use, e-cigarettes

Respondents who had ever used an e-cigarette (including current, ex-users and those who had tried them at least once) were asked what reason best described why they use or used an e-cigarette. The most frequent reason 11 to 17 year olds picked was *'Just to give it a try'* (45.7%), this was most common among never-smokers (65.4%).

Among current smokers who had tried e-cigarettes, reasons for e-cigarette use were more divided. The most common reason was *'I like the flavours'* (20.8%), followed by *'I enjoy the experience'* (17.5%), with the response *'Just to give it a try'* third at 15.2%. They were also more likely to cite reasons linked to smoking *'I am trying to quit smoking'* (10.7%) and *'I use them instead of smoking'* (9.4%). Some current smokers who vape were also more likely to report *'I am addicted to them'* (10.3%) which was not reported by any vapers who had never smoked. (Figure 10).

Figure 10. Reasons for e-cigarette use, GB youth (11-17), 2022

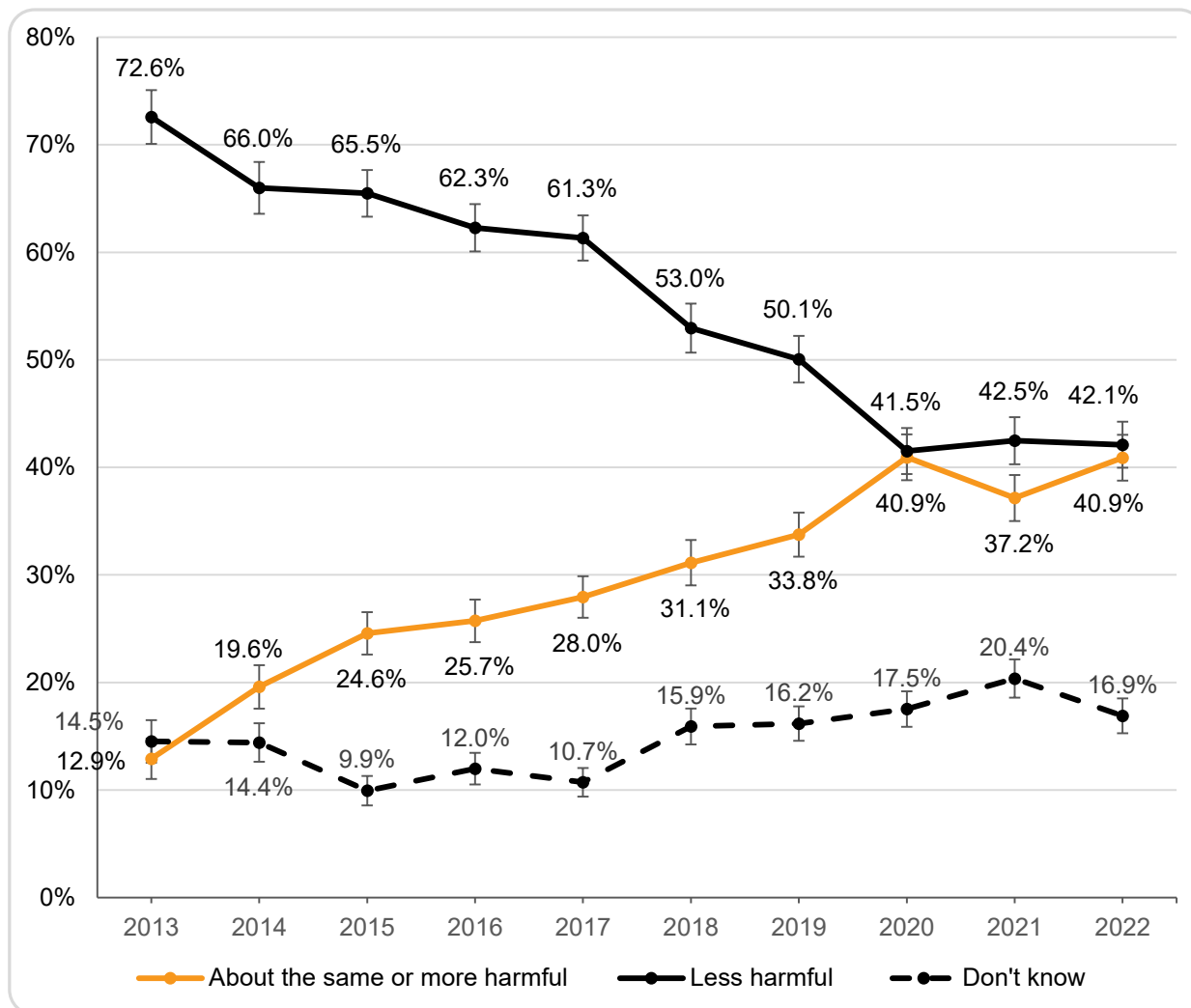


ASH Smokefree GB Youth Survey, 2022. Respondents that have tried e-cigarettes (Unweighted bases: Never smokers = 149, former smokers = 140, current smokers = 93).

An increasing proportion of 11-17 year olds incorrectly believe that e-cigarettes are as harmful as tobacco cigarettes

Since 2013 there has been a gradual fall in the number of young people who correctly identify vaping as being relatively less harmful than tobacco smoking. In 2013, 72.6% of young people correctly said that e-cigarettes were less harmful than smoking, falling to 42.1% in 2022. The proportion of young people incorrectly saying that e-cigarettes are more or equally harmful as tobacco cigarettes has grown from 12.9% in 2013 to 41.0% in 2022. (Figure 11)

Figure 11. Perceptions of harm of e-cigarettes compared to smoking, GB youth (11-17), 2013-22



ASH Smokefree GB Youth Survey(s). Unweighted base: All 11-17 year olds aware of e-cigarettes (2013 = 1,190, 2014 = 1,483, 2015 = 1,700, 2016 = 1,607, 2017 = 1,968, 2018 = 1,687, 2019 = 1,863, 2020 = 1,909, 2021 = 1,905, 2022 = 1,916)

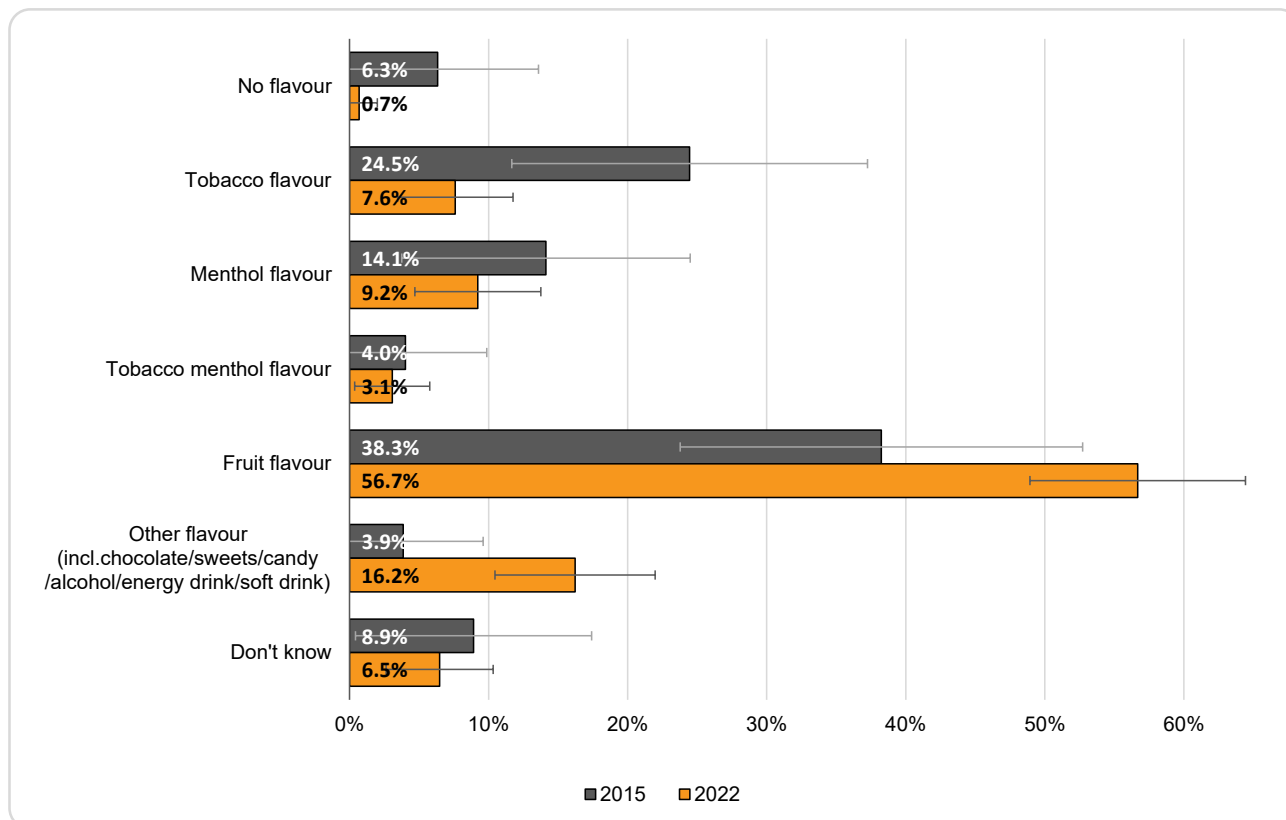
Types of products used

E-LIQUIDS

In 2022, 46.1% of 11-17 year olds said that the e-cigarette they used most often always contained nicotine; 30.4% said it sometimes contained nicotine; 12.8% that it never contained nicotine; with 10.7% saying they didn't know.

The most frequently used e-cigarette flavouring for young people is 'fruit flavour' chosen by 56.7% of current e-cigarette users. The next most popular flavour is from the 'other flavour' category (a wide variety including 'chocolate, desserts, sweet, or candy, alcoholic drink, energy drink and soft drink flavour') chosen by 16.2%, followed by 'menthol/mint flavour', chosen by 9.2%. Tobacco flavour is less popular now than in the past, with only 7.6% of young people who use e-cigarettes choosing this flavour in 2022 compared with 24.5% in 2015. (Figure 12)

Figure 12. Most frequently chosen e-cigarette liquid flavour, current GB youth (11-17) users of e-cigarettes, 2015 and 2022

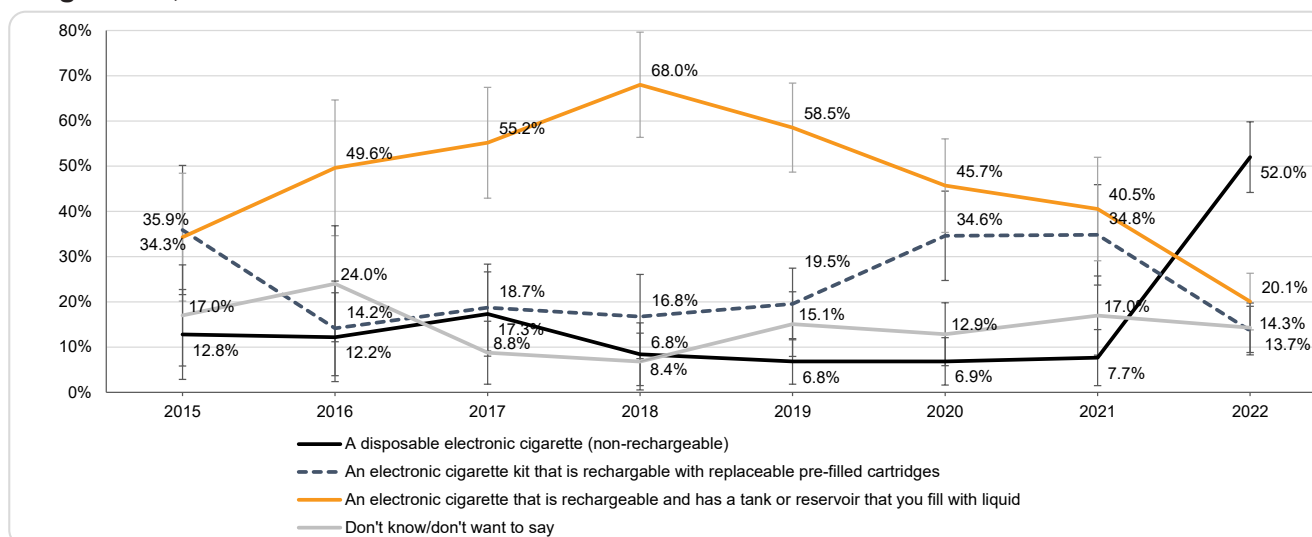


ASH Smokefree GB Youth Survey, 2022. Unweighted base: 11-17 year olds, respondents who are current users of e-cigarettes in 2022: 172; current users of e-cigarettes in 2015: 41. Percentages have been rounded to the nearest decimal place.

DEVICES

The most frequently used device has changed significantly over time. This year for the first time the most popular type of e-cigarette amongst GB youth was disposable e-cigarettes, with 52.0% of respondents favouring this device. This is more than a 7-fold increase between 2020 and 2022. (Figure 13)

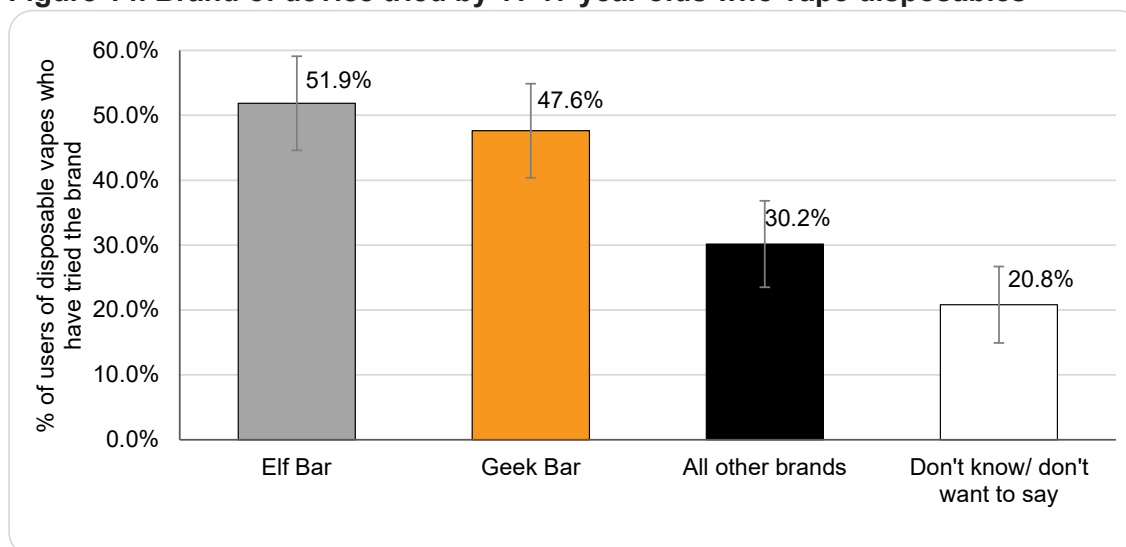
Figure 13. Most frequently used e-cigarette by device type, current GB youth (11-17) users of e-cigarettes, 2015-2022



ASH Smokefree GB Youth Survey, 2022. Unweighted base: 11-17 year olds, respondents who are current users of e-cigarettes (2015 = 41, 2016 = 36, 2017 = 60, 2018 = 59, 2019 = 94, 2020 = 94, 2021 = 76, 2022 = 172) Percentages have been rounded to the nearest decimal place.

Over the last year a new generation of disposable vapes have come on to the market. Generically these are known as ‘puff bars’ and the most popular brands by far are ‘Elf Bar’ and Geek Bar’ with only 30.2% of young vapers using disposable vapes reporting using a different brand.

Figure 14. Brand of device tried by 11-17 year olds who vape disposables

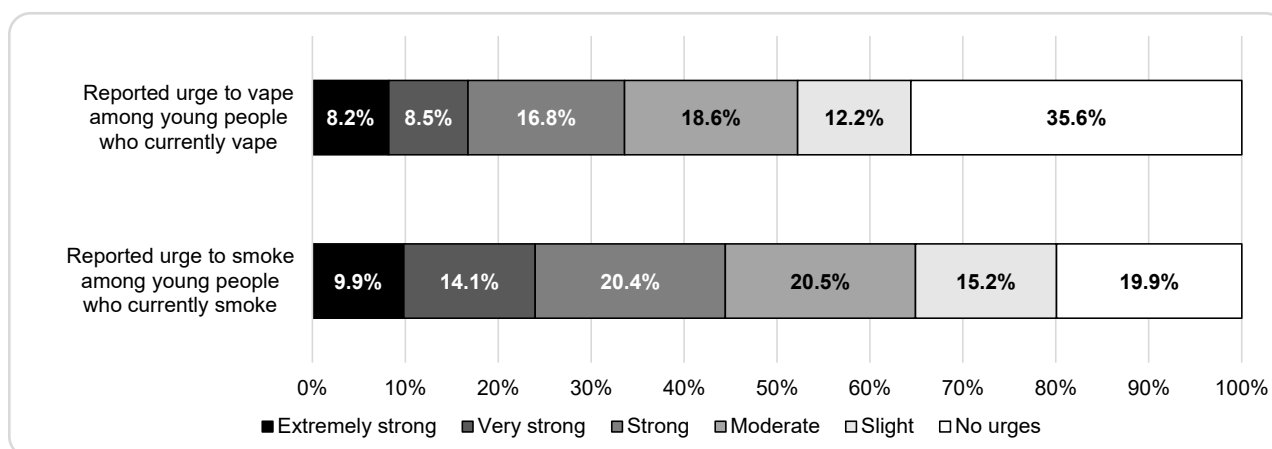


Urges to smoke compared with urges to use e-cigarettes

YouGov asked young people about the frequency and intensity of the urge to smoke and use e-cigarettes. In 2022 young smokers were more likely to report any type of strong urges to smoke (44.4%) than young vapers were to report strong urges to vape (33.5%). Of e-cigarette users aged 11-17, 35.6% reported no urges to vape, while 19.9% of 11-17 year old smokers reported no urges to smoke. (Figure 15).

These questions are used to make assessments about the level of addiction an individual may have. While it is difficult to make a comparison between two different behaviours (smoking and vaping) in two different but overlapping populations (young current smokers and young current vapers), the results indicate that young vapers may have lower levels of addiction than young smokers. However, it may not be justified to draw strong conclusions.

Figure 15. Reported urges to vape and smoke, GB youth (11-17) users of e-cigarettes and smokers, 2022



ASH Smokefree GB Youth Survey, 2022. Unweighted base: 11-17 year olds, respondents who are current users of e-cigarettes 172; respondents who are current smokers 118

Appendix 1: Context - regulatory framework and how it has evolved

From October 2015 a minimum age of sale for e-cigarettes of 18 was introduced in England and Wales, making it illegal to sell e-cigarettes containing nicotine to under 18s or to purchase them on behalf of under 18s.² However, a loophole in the law does not make it illegal to give free samples of e-cigarettes to under 18s. Scotland implemented their own age of sale and proxy purchasing regulations in April 2017,³ and Northern Ireland in February 2022.⁴

From 20th May 2016, a regulatory framework for e-cigarettes was introduced in the UK under the EU Tobacco Products Directive (TPD).⁵ From that date, the advertising or promotion, directly or indirectly, of electronic cigarettes and re-fill containers on a number of media platforms, including on television, radio, newspapers and magazines, was prohibited. The only advertising still allowed is at point of sale and other local advertising such as billboards. Scotland is currently in the process of consulting on whether to tighten its regulations to further limit the way vape products can be advertised and promoted.⁶

The new product rules under the TPD for e-cigarettes introduced a notification process for manufacturers and importers in May 2016.⁷ Non-compliant stock was allowed on sale for a further year until 20th May 2017.⁸ See below for a summary of the key product standards:

NICOTINE STRENGTH OF E-LIQUID

- Electronic cigarettes which contain up to 20 mg per ml of nicotine are regulated as consumer products.
- Products containing over 20mg per ml of nicotine are not legal unless they have a medicinal licence.⁹
- Zero nicotine products are not covered by the TPD and do not require a medicinal licence.

QUANTITY OF E-LIQUID

- Disposable electronic cigarettes, cartridges and tanks can contain a maximum of 2ml of e-liquid, while dedicated refill containers can contain up to 10ml.

SAFETY

- Products must be child-resistant and tamper evident.

HEALTH WARNINGS

- The pack must carry a health warning covering 30% of the surfaces of the unit packet and any outside packaging stating '*This product contains nicotine which is a highly addictive substance.*'

The Medicines and Healthcare products Regulatory Agency (MHRA) is the competent authority for the notification scheme for e-cigarettes and refill containers in the UK. Consumers and healthcare professionals can report side effects and safety concerns with e-cigarettes or refill containers to the MHRA through the Yellow Card reporting system.¹⁰ They can also report products suspected to be defective or non-compliant to their local Trading Standards service or to TPDsafety@mhra.gov.uk.

The MHRA assesses all reports received in associated with nicotine-containing e-cigarettes and works with local Trading Standards teams to investigate as needed. Should any potential safety concerns be identified regulatory action would be taken and communicated as appropriate.

The Department for Health and Social Care carried out a post-implementation review of tobacco regulations including e-cigarette regulations, and concluded that the regulations were fit for purpose in its responses published in January 2021,¹¹ and March 2022.¹² ASH uses its annual online survey to ask e-cigarette users questions about the type of product they use to inform our understanding of the impact of the current regulations and how the market for e-cigarettes is evolving.

Appendix 2: ASH Smokefree GB Youth Survey methodology

The ASH Smokefree GB Youth Survey is an annual survey of young people in Great Britain ages 11-18 which has been running since 2013. The survey is carried out online by YouGov and is commissioned by Action on Smoking and Health (ASH) and funded by a combination of the British Heart Foundation, Cancer Research UK and the Department of Health and Social Care.

Since 2021, the analysis in the factsheet focuses on 11-17 year olds as it enables a clear picture to be presented of underage use (since 2015 it has been illegal to sell e-cigarettes to anyone under the age of 18). With no legal distinctions in tobacco or e-cigarette usage within this age bracket, the relative group homogeneity allows greater analysis power.

Results have been weighted and are representative of GB children aged 11 to 17. This year's survey was carried out online in 2022 and relevant comparisons with previous years are covered in this briefing. Numbers have been rounded up from the first decimal place, but down from the second decimal place.

ASH Smokefree GB Youth Survey Participant Counts

Year	Age 11-15	Age 16-17	Age 11-17	Age 18	All ages 11-18	Dates
2022	1335	776	2111	502	2613	1st – 29th March
2021	1347	762	2109	404	2513	25th March – 16th April
2020	1295	734	2029	476	2505	11th – 31st March
2019	1243	739	1982	541	2523	12th March – 3rd April
2018	1288	519	1807	484	2291	28th February – 17th March
2017	1538	613	2151	472	2623	10th March – 5th April
2016	1326	409	1735	596	2331	11th March – 10th April
2015	1291	543	1834	457	2291	6th -22nd March
2014	1348	469	1817	251	2068	21st March - 1st April
2013	1422	473	1895	283	2178	21st - 28th March

References

Online links last checked July 2022.

1. 2022 ASH Smokefree GB Adult Survey. Total sample size was 13,088 respondents. The online survey was undertaken between 16th February – 21st March 2022. The figures have been weighted and are representative of all GB adults.
2. [The Nicotine Inhaling Products \(Age of Sale and Proxy Purchasing\) Regulations 2015](#)
3. Scottish Government. [E-cigarette restrictions](#). April 2017. [accessed 28 June 2022]
4. NI Department of Health. [New smoking and e-cig regulations are important to protect children](#). December 2021. [accessed 28 June 2022]
5. [EU Tobacco Products Directive 2014/40/EU](#) Article 20.
6. Scottish Government. [Tightening rules on advertising and promoting vaping products](#). Consultation closed 29 April 2022. [accessed 28 June 2022]
7. Medicines and Healthcare products regulatory Agency. [E-cigarettes: regulations for consumer products](#). 2019
8. [Tobacco and Related Products Regulations 2016](#)
9. Medicines and Healthcare products regulatory agency. [Licensing procedure for electronic cigarettes as medicines](#). 2017
10. [Yellow Card, MHRA](#)
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12. DHSC. [Post-Implementation Review of Tobacco Legislation: The Tobacco and Related Products Regulations 2016](#). March 2022. [accessed 28 June 2022]

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