

Policy brief on vaping – February 2023

Purpose of the Brief

- 1. This brief sets out our policy recommendations for Government in the light of growing evidence of increases in underage vaping.
- 2. E-cigarettes are proven to be a more effective quitting aid for smokers than nicotine patches or gum.¹ Yet over a quarter of smokers have never tried vaping, and there remain widespread misperceptions that vaping is more than, or equally harmful as, smoking. These need to be addressed.
- 3. Vaping, however, is not risk free, and is not recommended for children and nonsmokers. Although vaping among children remains largely experimental, the significant growth in 2022 compared to previous years is of concern.²
- 4. ASH has produced resources for local authorities and trading standards on tackling youth vaping. Sheffield City Council, with our help, have published educational materials for schools, teachers, parents and carers which are available online.³
- 5. However, better education on its own is not sufficient to discourage children from taking up vaping, strengthened regulation and enforcement is also needed. When the Government reviewed the regulations in 2021 ASH and the SPECTRUM public health research consortium recommended strengthening regulation of e-cigarettes,⁴ but no changes were made.⁵
- 6. Government action is urgently needed, and further delay is unacceptable. This policy brief reiterates our previous recommendations and further strengthens them as set out below. Our top recommendation, to add an excise tax to single use (disposable) vapes to reduce the affordability of the products which are cheapest and most popular with children, could be implemented in the March 2023 Budget.

Summary and recommendations

- 7. ASH recommends a set of policies in line with those set out in the independent Khan Review: Making Smoking Obsolete,⁶ which are designed to both:
 a) minimise the risks of children taking up vaping or smoking;
 b) maximise the potential of e-cigarettes as a quitting aid for the millions of smokers at risk of premature death, disability and disease.
- 8. A summary of our policy recommendations is set out below:

To minimise the risk of children taking up vaping or smoking (page 2):

- 1) Reduce the affordability of disposable e-cigarettes to make them less accessible to children.
- 2) Reduce the appeal of e-cigarettes to children.

- 3) Reduce the availability of e-cigarettes to children.
- 4) Extend the e-cigarette regulations to include all consumer nicotine containing products (e.g. nicotine pouches)
- 5) Extend the e-cigarette regulations to related non-nicotine containing products such as zero nicotine e-cigarettes.

To maximise the potential of e-cigarettes as a quitting aid (page 6):

- 1) Offer vaping as a substitute for smoking, alongside accurate information on the benefits of switching, including to healthcare professionals
- 2) Accelerate the path to making e-cigarettes available on prescription
- 3) Provide free 'Swap to Stop' packs in deprived communities,
- 9. This brief also summarises the evidence on vaping both in adults and young people as set out below (pages 6 to 9):
 - 1) What is vaping
 - 2) How many adults and children vape
 - 3) Why vaping is much less harmful than smoking
 - 4) Why vaping helps people stop smoking
 - 5) Why more smokers should be encouraged to use e-cigarettes to help them quit smoking
 - 6) Why youth smoking is much more harmful than youth vaping
 - 7) Why vaping is not risk-free and more should be done to discourage youth vaping
- 10. The myths about nicotine and vaping are addressed in Appendix 1 (fully referenced). (pages 9 to 11)

Policy recommendations

To minimise the risk of children taking up vaping or smoking

- 1) Reduce the affordability of disposable e-cigarettes to make them less accessible to children
 - Implement an excise tax on single use (disposable) vapes.
- 11. While youth vaping has grown rapidly in the last year or so, the most rapid growth by far has been in the new single use (disposable) e-cigarettes which have come on to the market in the last few years and are cheap and widely available. These are now the most used product among young people who currently vape, up more than 7-fold from 7% in 2020 and 8% in 2021, to 52% in 2022. (detailed information on vaping behaviour from the ASH Smokefree GB youth survey).
- 12. Increasing the price makes products less accessible to children who are on limited budgets. This is also likely to reduce availability through the other two main sources being given them or purchasing them from friends.
- 13. Currently single use (disposable) vapes are the cheapest e-cigarettes on the market and can be bought for under £5, below the hourly minimum wage for 16

and 17 year olds in 2023,⁷ and well within the budget of most teenagers.⁸ There is good evidence that making products less affordable is the most effective method of reducing uptake and encouraging quitting for smoking, and the same will be true for e-cigarettes.

- 14. For example, the most popular single use e-cigarette among young people in 2022, Elf Bar, cost £4.99 in January 2023, while the equivalent reusable device the Elfa Bar pod kit costs £7.99 with refill pods £5.99 for a pack of two.⁹ Disposable cigalike vapes were on sale for £3.49 in February 2023.¹⁰
- 15. There are also good environmental arguments for disincentivising the use of single use vapes. These products contain a lithium battery in a plastic device, and they are being discarded in large numbers, with most ending up in landfill. It's been estimated that over a million single use vapes are thrown away every week, amounting to 10 tonnes of lithium a year, equivalent to the lithium in batteries inside 1,200 electric vehicles.¹¹
- 16. Affordability could be reduced relatively quickly and easily through taxation. We recommend making e-cigarettes an excisable product and setting a tax on single use (disposable) vapes. A zero rating should be applied to the re-chargeable and refillable products which have to date been the main products used by adult exsmokers who used e-cigarettes to help them quit smoking. The joint ASH and SPECTRUM Budget representation sets this out in more detail.¹²
- 2) Reduce the appeal of e-cigarettes to children by:
 - Stricter regulation of packaging, labelling and product presentation;
 - Stricter regulation of point of sale advertising and promotion;
 - In addition:
 - Review other e-cigarette regulations which relate to their appeal in the light of the recent increases in youth vaping.
- 17. E-cigarettes are age restricted products and their packaging and labelling must be strictly regulated so that it does not appeal particularly to children.^{13 14} For example this could include prohibition of:
 - cartoon characters and bright colours on packs;
 - product names or descriptors associated with sweets or sweet names (e.g. gummy bears); and
 - design features such as "light up" vapes which can be used in the dark like glow sticks.¹⁵
- 18. In 2022 over half (56%) of 11-17 year olds reported being aware of e-cigarette promotion, most frequently in shops with awareness highest amongst those who had ever vaped (72%). The Advertising Standards Authority and Committee on Advertising Practice does not currently set rules for advertising and promotion at point of sale and this is a loophole which needs to be addressed.
- 19. Advertising and promotion of e-cigarettes at point of sale should be regulated by the Committee on Advertising Practice (CAP) in line with the rules for all other forms of advertising of e-cigarettes and other age restricted products,¹⁶ such that advertising and promotion of e-cigarettes at point of sale:

- must not encourage non-smokers or non-nicotine-users to use e-cigarettes.
- must not be likely to appeal particularly to people under 18, especially by reflecting or being associated with youth culture.

20. However, it may be that other regulations need revising. For example DHSC should review:

- Whether the current warning on e-cigarettes is effective at discouraging use by young people while not discouraging use by adult smokers and revise if necessary.
- consider whether a point of sale display ban in retail premises should be applied to electronic cigarettes and other consumer nicotine containing products. Exemptions to the ban could be applied for specialist shops which restrict access to under 18s, as is the case with tobacco products.¹⁷
- If making disposable vapes less affordable to young people is insufficient to discourage youth uptake, further measures should be considered including a complete ban.

3) Reduce the availability of e-cigarettes to children by:
 Prohibiting free distribution and nominal pricing of e-cigarettes and vaping products
 Requiring mandatory age verification by retailers for tobacco and nicotine containing products
 Requiring e-cigarettes and vaping products to be held behind the counter
 Applying e-cigarette notification fees to supporting enforcement by trading standards
 Require a mandatory registration scheme for e-cigarette and other nicotine containing products other than those licensed for medicinal purposes

- Legislating to give powers to Border Force to reject entry for any products found to be non-compliant with UK standards.
- 21. Prohibit free distribution and nominal pricing of e-cigarettes and vaping products to children, currently allowed by the Tobacco and Related Product Regulations 2016.¹⁸ It is an unacceptable loophole in the law that while e-cigarettes cannot be sold to children, they can be given away free to anyone, whatever age they are, and can be sold cheaply at far below market value.
- 22. Require e-cigarettes and vaping products to be held behind the counter, so they cannot be displayed on open shelves. Vapes and vaping products have been found displayed on open shelves in shops next to sweets, increasing their availability and appeal to children.
- 23. Despite it being illegal to sell vapes to under 18s, the most common source of supply of e-cigarettes for underage vapers is shops, with nearly half (47%) saying this is how they access e-cigarettes. Cuts to trading standards in recent years have halved the numbers of trading standards officers,^{19 20} limiting their ability to tackle underage sales, both of tobacco and e-cigarettes.

- 24. Funds raised through the e-cigarette notification scheme which are not required for the administration of the scheme should be allocated to enforcement activity. And a registration scheme should be introduced, requiring all retailers to register both to sell tobacco and vaping products and to be subject to sanctions if they do not. This would support enforcement activity by providing comprehensive information about where e-cigarettes are on sale, in every locality.
- 25. Enforcement would also be improved by requiring mandatory age verification for sales of tobacco and e-cigarettes, as is already the case in Scotland.
- 26. Legislate to give powers to Border Force to reject entry to any products found to be non-compliant with UK standards. Currently products can be seized, but unless trading standards are able to assess their compliance within a limited period of time, products are allowed on to the market. And if they are found to be noncompliant trading standards are then responsible for their disposal. This puts significant time and cost burdens on trading standards, rather than on the importers of these products, who should be made to carry the financial burden of import of non-compliant products.
 - 4) Extend the regulations to include all consumer nicotine containing products (e.g. nicotine pouches) to include:
 - Advertising and promotion
 - Nicotine content and other ingredients and emissions
- 27. The market for other nicotine containing products, in particular nicotine pouches, is growing, and these should be brought within the remit of existing regulations on advertising and promotion, and the proposed extensions recommended by ASH.
- 28. Nicotine containing products other than those which are licensed medicines, are currently only regulated under General Product Safety Regulations (GPSR). This is not sufficient for products which contain nicotine, an addictive psycho-active drug.
- 29. Product contents and emissions for all non-medicinally licensed nicotine containing products must be notified to the MHRA, which should be made the competent authority as it is for e-cigarettes. The MHRA, in collaboration with OHID, should be made responsible for setting standards appropriate to the relative risk of the product, prioritising those with greatest market share and highest nicotine content, i.e. nicotine pouches.

5) Extend the e-cigarette regulations to related non-nicotine containing products such as zero nicotine e-cigarettes to include

- Contents and emissions
- Packaging and labelling
- 30.E-cigarette product regulations and regulations on advertising, promotion and packaging and labelling as set out above should also be applied to non-nicotine containing e-cigarettes.
- 31. Any vaping, not just of nicotine-containing products, carries potential risks²¹ and it is important that the standards with respect to contents and emissions apply to all

vapes, not just those containing nicotine. This is in line with the regulation of nonnicotine containing 'herbal' smoked cigarettes in the tobacco regulations.²²

To maximise the potential of e-cigarettes as a quitting aid

- 32. The Khan review recommendations summarised below should be implemented in full:
 - 1) Offer vaping as a substitute for smoking, alongside accurate information on the benefits of switching, including to healthcare professionals
 - 2) Accelerate the path to making e-cigarettes available on prescription
 - 3) Provide free 'Swap to Stop' packs in deprived communities
- 33. Furthermore, e-cigarette product regulations should also be reviewed to see if they can be improved to mitigate environmental impact and better support adult smokers quitting through vaping, without increasing risks to children. This should include reviewing the size of tanks and refills legally allowed.

Summary of the evidence

1) What is vaping?

- 34. Vaping is the use of an electronic device to inhale an aerosol (vapour) derived from a heated liquid. The main ingredients are vegetable glycerine and propylene glycol, but most e-liquids also contain nicotine, which must be no more than 2% or 2 mg per ml, as well as small amounts of flavourings and sweeteners.²¹
- 35. There are many myths about e-cigarettes and vaping, frequently reported in the media, including that vapes contain more nicotine than cigarettes, that vaping is highly addictive and acting as a gateway into smoking for children and young people and that vaping is as harmful as smoking. See below and Appendix 1 for the evidence rebutting these myths.

2) How many adults and children vape

- 36. ASH has monitored vaping annually among adults since 2010 and children since 2013, to help inform our policy recommendations to government, and our results are published online.^{2 23}
- 37. The annual YouGov adult survey carried out in February/March 2022 found that use of e-cigarettes is still largely confined to current and ex-smokers, with use among never smokers remaining low. Of the 4.3 million current vapers, around 2.4 million are ex-smokers, 1.5 million are current smokers, mainly trying to quit or cut down, and 350,000 are never smokers.
- 38. The annual YouGov Smokefree GB youth survey for ASH carried out in March 2022 found regular vaping (more than once a week) among children 11-17 increased from 1.3% in 2020 to 3.1% in 2022, and current vaping from 4.1% to 7%. The proportion of children who admit ever having tried vaping had also risen from 14% in 2020 to 16% in 2022.

- 39. ASH data provides an average for Great Britain as a whole, so it's useful to compare with survey results from localities. Taking into account that the methodology was not identical, the Newcastle Children and Young People's Health and Wellbeing Survey by SHEU (2022) finds results which are similar to those of ASH. This was a schools-based survey given to pupils in years 8 (12-13) or 10 (14-15) in Newcastle, which found 4.4% of pupils regularly vaped (once a week or more) and 19% had ever vaped.²⁴
- 40. Given increases in vaping among young adults during 2022,²⁵ we expect the next ASH survey carried out in Spring 2023 to show further growth. We will continue to monitor the results of local surveys as a comparison.

3) Why vaping is much less harmful than smoking

41. Stopping smoking by vaping leads to a substantial reduction in exposure to toxicants that cause and exacerbate cancer, lung disease and cardiovascular disease. Tobacco smoke inhaled from burning cigarettes is uniquely dangerous, delivering harmful doses of over 250 toxic chemicals, nearly a third of which are known to be carcinogenic. Tobacco smoke includes harmful gases like carbon monoxide and hydrogen cyanide in addition to the multitude of toxic chemicals contained in the sticky tar that smokers also inhale.²⁶

4) Why vaping helps people stop smoking

42. Smoking is very effective at delivering nicotine rapidly to the brain making it highly addictive and hard for smokers to quit. Vaping provides nicotine to help smokers deal with the cravings that make it hard to quit. Vaping is now the most popular quitting aid among UK smokers. The evidence is that vaping nicotine-containing e-cigarettes helps smokers quit, and is more effective than other nicotine quitting aids like patches and gum.¹

5) Why more smokers need to be encouraged to quit with the help of vaping

- 43. There are now estimated to be over 4 million adult vapers in the UK, the majority of whom (57%) are ex-smokers, and most of the rest (35%) are current smokers using e-cigarettes to help them cut down and stop smoking, with 8% saying they have never smoked.
- 44. However, more than a quarter (28%) of adult smokers have never tried ecigarettes and nearly a half have tried but no longer vape. In both cases this is associated with significant misperceptions of the risk of vaping compared to smoking. More than a third (36%) of smokers who have never vaped think vaping is more than or equally harmful as smoking, very similar to those who've tried but no longer vape (35%).
- 45. ASH, the Royal College of Physicians,²⁷ the BMA,²⁸ the National Institute for Health and Care Excellence,²⁹ and the eight independent reviews of the evidence carried out for the government by King's College London,³⁰ all conclude that the use of ecigarettes by smokers as an effective aid to quitting is supported by the evidence.

46. Indeed this is a vital plank in the comprehensive strategy needed to achieve a smokefree 2030 in England. To achieve this, we need to do more to motivate smokers to quit, explain how much more likely they are to succeed with the help of e-cigarettes and communicate accurately the significant reduction in risk to smokers from vaping.

6) Why youth smoking is much more harmful than youth vaping

- 47. The greatest risk to young people is still from experimenting with smoking, not vaping. While child smoking has declined dramatically in recent years there are still significant numbers of children and young adults taking up smoking, particularly those aged 16 and over.³¹ By emphasising the risk of youth vaping without putting it in the context of the greater risks of smoking there is a danger children might be encouraged to take up smoking instead.
- 48. Most adult smokers first tried smoking as children or young adults, with two thirds of those just trying one cigarette going on to become daily addicted smokers.³² Quitting smoking can be tough, on average it takes a smoker 30 attempts before they succeed,³³ and up to two thirds of long-term smokers will die from their addiction.^{34 35 36}
- 49. Vaping is not as harmful as smoking and also has not currently been found to be as addictive. While we are seeing an increase in vaping among children and young adults, the vast majority are young people who've already tried smoking (or were likely to do so in the future). Vaping among those who haven't tried smoking has to date largely been experimental, and young people who vape but don't smoke have been found to low levels of nicotine dependence compared to those who smoke.³⁷

7) Why vaping is not risk-free and more should be done to discourage youth vaping

50. For a number of harmful chemicals delivered by smoking, the exposure in vaping is similar to that for people who don't smoke or vape. However, there is exposure to some toxic chemicals from vaping that are higher than for people who don't smoke or vape, albeit much lower than for people who smoke.³⁰ Therefore there is likely to be some risk from long-term vaping, particularly for people who have never smoked. We need to do all we can to prevent children and young adults who have never smoked taking up vaping.

8) Why other nicotine containing products also need regulating

- 51. Furthermore currently nicotine containing products other than e-cigarettes are only regulated under the General Product Safety Regulations 2005, while market research projects a compound annual growth rate (CAGR) of 35.7% from 2022 to 2030 in the market for nicotine pouches.³⁸
- 52. The Committee on Toxicity (COT) is currently considering the toxicological risks from the use of oral nicotine pouches. The COT has not finalised its recommendations, however its draft report expressed concerns over the current regulatory framework for oral nicotine pouch products as they did not fall under specific regulations and the high levels of nicotine in many commercially available pouches were a cause for concern.

53. The British Standards Institution (BSI) has published a specification for the composition, manufacture and testing of oral nicotine pouches, which recommends a maximum nicotine content of 20 mg per pouch. However, there are many products on the market with far higher nicotine levels than this reaching as high as 120 mg per pouch.³⁹

Appendix 1: Addressing the myths about nicotine and vaping

1. There are many myths about nicotine and vaping, often reported in the media – the facts are set out below:

Vapes DO NOT deliver more nicotine than a packet of cigarettes

- A legal vape, disposable or otherwise, does not contain as much or more nicotine as a packet of 20 cigarettes. Comparing like with like, a UK standard 2 ml disposable vape contains 40 mg of nicotine, an average pack of 20 cigarettes contains 250 mg of nicotine⁴⁰ which is more than six times as much.
- 3. Furthermore, both for smoking and vaping a small proportion of the nicotine content is absorbed by the user and depends largely on *how* a cigarette or vape is used rather than what it contains. A packet of cigarettes takes between 160 and 320 puffs to smoke.⁴¹ Popular disposable vapes such as Elf Bar⁴² and Geek Bar⁴³ are said to contain around 600 puffs, but puffs on vapes are not the same as puffs on cigarettes, and given the nicotine content and lower bioavailability, puffs will deliver less, not more nicotine.

Vaping is currently NOT proven to be a gateway into smoking

- 4. The evidence does not support the idea that vaping is a gateway into smoking for young people.^{44 45 46 47 48 49} Some who try vaping first may go on to smoke cigarettes, but this association works both ways and there are common risk factors for both behaviours (e.g., parental smoking, risk-taking and impulsivity); this does not prove that vaping caused subsequent smoking.^{50 51}
- 5. If vaping were a gateway into smoking, logically as vaping increased smoking rates would stop declining or start to increase again. To the contrary between 2010 and 2018 when e-cigarette use grew rapidly from a low base in England, smoking rates among children continued to fall. Among 11-15 year olds current smoking fell from 11% to 3% and ever having tried smoking from 23% to 16%,⁵² and among those aged 16+ smoking rates fell from 20% to 16%,⁵³ which does not support the gateway hypothesis.

Smoking is much more addictive than vaping

 Young people who vape but don't smoke are much less likely to be nicotine dependent than those who smoke, even in the US where the nicotine concentration limit tends to be much higher (5% compared to the 2% maximum allowed in the UK).³⁷ 7. This is very different from smoking where we know that two thirds of those trying one cigarette will go on to become daily, addicted, smokers.³⁴

The risk of nicotine poisoning is LESS than many other drugs

- 8. Nicotine replacement therapy such as gum and patches are licensed by the MHRA for smoking cessation, not just by adults but also by children from age 12 upwards, pregnant women and people with cardiovascular disease. The WHO includes nicotine replacement therapy in its list of essential medicines which meet the priority healthcare needs of populations, because there is good evidence of efficacy, safety and comparative cost-effectiveness.⁵⁴
- 9. While nicotine is poisonous and nicotine containing e-liquids, like NRT and other drugs, should be kept out of sight and reach of young children, the risk of overdose is low. Taking too much nicotine makes people feel sick and vomit. This makes it difficult to overdose and usually overdosing results in relatively minor symptoms such as vomiting, which are short in duration.⁵⁵

Vaping nicotine has NOT been proven to cause the same level of harm as smoking

- 10. E-cigarettes have been on the market in the UK for 15 years and have been the most popular quitting aid since 2013.⁵⁶ During that time vaping has not been associated with widespread health problems in the UK.
- 11. Between May 2016, when its reporting system was extended to vaping products, and January 2022 the MHRA received 257 yellow card reports covering 720 adverse reaction reports associated with vaping, most of which were non-serious. Between January and December 2021 there were 297 reports covering 601 reactions to the MHRA's interactive Drug Analysis Profiles (iDAPS) for medicinally licensed nicotine replacement therapies such as patches and gums. MHRA reports show association, but do not prove causation.³⁰
- 12. Media reports have highlighted recent growth in hospital admissions linked to vaping among under 18s, which had grown from 8 in 2021 to 32 in 2022.⁵⁷ As with MHRA yellow card reports, however, an association has been made but causality has not been proven. In comparison over 5,000 children a year are admitted to hospital every year because of passive smoking.⁵⁸
- 13. UK regulations prohibit the use of any ingredient in nicotine containing e-liquid that poses a risk to human health in heated or unheated form. Prohibited chemicals include vitamins, and diacetyl⁵⁹ which when people working in factories were exposed to it in large quantities was proven to cause a respiratory disease which became known as 'popcorn lung'.
- 14. In the US in 2019 there was an outbreak of serious respiratory disease linked to vaping which became known as EVALI. EVALI was found to be caused by vitamin E acetate contained in cannabis vaping products, which was used as an additive to dilute the cannabis oil.⁶⁰ Between March 2019 and January 2020 there were more than 2,600 cases of people hospitalised with 'EVALI' and 60 deaths reported to the US Centers for Disease Control and Prevention (CDC).⁶¹ Once the link with vitamin

E acetate was identified the outbreak declined rapidly, as it stopped being used as an additive. Neither cannabis oil nor vitamin E acetate is legal in vapes on sale in the UK and the outbreak of respiratory disease in the US was not replicated in the UK

15. We cannot yet be precise about the longer-term risks of vaping nicotine containing products, but they are likely to be substantially lower than smoking. This is because the levels of exposure to toxic chemicals from vaping are a tiny proportion of those from smoking.³⁰ We also do not yet know whether the same proportion of people will vape throughout their lifetimes as smoke cigarettes, or whether people will have the same persistent difficulties quitting. However, it is much better for people to carry on vaping than relapse back to smoking, which is common among ex-smokers, sometimes years after they quit.⁶²

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NB All electronic links in references accessed on Feb 9 2023 unless otherwise specified

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