Vaping products policy report

Yorkshire Cancer Research

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Introduction

Yorkshire Cancer Research exists so that more people in Yorkshire live longer healthier lives, free of cancer.

Our aim is to reduce incidence, cancer deaths and years lost to cancer. To do this, the charity:

- works to prevent cancer and to detect cancer at the earliest possible opportunity when it's often easier to treat and a full recovery more likely;
- funds vital cancer research and clinical trials so that more people in Yorkshire can benefit from new and innovative cancer treatments;
- pioneers new services for people with cancer, helping increase recovery and cancer survival across the region; and
- attracts cancer experts and world-class researchers to Yorkshire, improving healthcare for the benefit of everyone in the region.

Yorkshire Cancer Research is determined that people living in Yorkshire should not be at a disadvantage when it comes to cancer survival. This is why, as Yorkshire's independent cancer charity, we have been helping to save lives across the region since 1925.

The purpose of this document is to summarise the evidence to date on vaping products and outline the charity's position on their use. The key messages should be used to communicate the safety and effectiveness as a stop smoking aid and regulation of these products with members of the public, providing reliable and up to date information so they can make an informed decision about any associated also be used to inform the charity's research and services operations, as well as external stakeholder engagement activities.

This policy report has been prepared by Yorkshire Cancer Research, using the most up to date information available at time of publication.

To request Yorkshire Cancer Research's full evidence review, please email: **policy@ycr.org.uk**.

Foreword

At Yorkshire Cancer Research, we are dedicated to reducing the number of people who die from cancer each year in Yorkshire. One of the ways we do this is by taking action to prevent cancer in our region.

Smoking seriously harms health and is the cause of hundreds of cancer cases and deaths across Yorkshire each year. As many as two thirds of all people who smoke long-term will die as a result of smoking – but this risk can be reduced by treating tobacco addiction. Vaping products are the most popular stop smoking aid in England and offer people who smoke a smokefree nicotine alternative. Recent evidence reports they are twice as good as other forms of NRT in helping people quit smoking.

We believe there is a need for evidenced-based information on vaping products that provides the facts clearly. Vaping is far less harmful than smoking and switching completely can improve health substantially, compared to continuing to smoke. Despite national consensus from the UK's leading health organisations that they are far less harmful than cigarettes, vaping products have been met with considerable uncertainty by the public and local health providers.

There is also a growing concern surrounding levels of youth vaping and the charity is mindful to be clear that vaping products are not risk-free. They are not for people who do not smoke, or who are not at risk of relapsing to smoking.

Dr Kathryn Scott
Chief Executive
Yorkshire Cancer Research

In light of these concerns, this policy not only provides a review of the latest evidence on the effectiveness of vaping products as tools for stopping smoking and the safety of vaping but also provides a comprehensive set of recommendations. If implemented, these recommendations would help to reduce rates of vaping in the non-smoking population (including in young people) while keeping vaping products accessible to people using them to stop smoking.

Many of the stop smoking services we fund give people who smoke the option to quit using a vaping product if they wish. We make sure people who smoke are given accurate and balanced information about vaping products so that they can make the decision that's right for them. Encouraging the switch to vaping products will help drive down smoking rates across the region and this will have a huge public health benefit in future years.

It is never too late to stop smoking. Even after a diagnosis of cancer, quitting smoking can have positive benefits on treatment and outcomes. We urge people who smoke to make the switch and get in touch with a free local stop smoking service for support.

Our position

There is no safe level of smoking. The best thing a smoker can do for their health is to stop completely and for good.

It is never too late to stop smoking. Quitting at any age can lengthen and improve quality of life, even for those with a smoking-related illness.

To substantially reduce levels of smoking, a significant change in smoking behaviour is required by tens of thousands of people in the Yorkshire population. This change will not come without a concerted effort by Government to lead a new approach helping people treat their tobacco dependence.

Alongside behavioural support and licensed stop smoking aids, we believe that vaping products have a significant role to play in reducing the harm from tobacco, supporting people who smoke to quit and thus improving public health. We take this position for two key reasons:

- Because evidence shows that vaping products are far less harmful than smoking. Switching completely from smoking to vaping is likely to convey substantial health benefits over continued smoking.
- Because they are the most popular stop smoking aid in England and there is strong evidence showing they effectively support people who smoke to quit.

However, we acknowledge that vaping products are not risk-free and therefore recommend that people who do not smoke, or who are not at risk of smoking (for example, relapsing to smoking), should not vape.

A significant rise in young people vaping is of concern and requires action, particularly in the fields of marketing and branding. Vaping products should not be seen as accessible lifestyle products, but as stop smoking aids.

Yorkshire Cancer Research therefore welcomes the reintroduction of the Tobacco and Vapes Bill to Parliament in November 2024. This will gradually raise the age of sale for tobacco products and reduce the availability of vaping products, particularly for children and young people.

Yorkshire Cancer Research welcomes measures in the Bill including:

- The gradual raising of the age of sale of tobacco products, with it being made illegal for an individual to purchase them if they are born on or after 1 January 2009.
- New powers to restrict the packaging and display of vaping products.
- The extension of powers to ban smoking in outdoor public places.
- A new licensing scheme, for which retailers will require a license to sell tobacco, vaping and nicotine products.
- A ban on the advertising and sponsorship of vaping and nicotine products.
- A strengthened enforcement system, with spot fines introduced for the commitment of offences.

Each of these measures will reduce the visibility and accessibility of tobacco products and vaping products to young people, without undermining their value as stop smoking aids for people who smoke.

Yorkshire Cancer Research believes that the Government can go further to ensure that vaping products remain accessible as a stop smoking tool, whilst also reducing access to vaping products for children and young people:

- That regulations are introduced to further decrease the accessibility of vaping products to people who do not smoke, including a '*Challenge 25*' approach for all tobacco and vaping products.
- That Government looks at the current restriction for vaping products to refrain from stating any health claims: it would be helpful if vaping products could include a prominent statement that they are aids to stop smoking, indicating that these are products aimed solely at people who are trying to stop smoking and recommended by NICE for this purpose.
- That Government uses powers granted by the Tobacco and Vapes Bill to move vaping products to behind the counter locations in retail stores. If this is implemented, it is important that retail marketing clearly distinguishes the reduced health risks of vaping compared to smoking.
- That Government and regulators must be challenged to continue to provide a legal and regulatory framework that not only permits but actively assists current and future users to access a product that improves their health by reducing rates of smoking.
- That every local authority stop smoking service should offer vaping products as part of their smoking cessation provision, by utilising the increased funding settlement from 2024/25.
- That a comprehensive public health campaign is required to dispel myths around vaping and provide a reliable source of information for people who smoke, encouraging them to stop smoking completely and for good.
- That Government should invest at least £125m in interventions to reach smokefree 2030 through a '*polluter pays*' levy to tax the tobacco industry for the harm they cause. This would mean more support to stop smoking is available for those who need it.

When regulations are set or updated, we recommend that potential loopholes are closed off as much as possible, and regulations are not only fit for purpose now, but also allow room to cover new products that may enter the market in the coming months and years.

Any restrictions implemented must not have a significant effect on the use and availability of vaping products as a stop smoking tool for those who are using them to quit smoking. Irrespective of age, switching to vaping from smoking still presents a significantly lower level of risk.

Yorkshire Cancer Research is therefore concerned about the following measures outlined in the Tobacco and Vapes Bill which are subject to further Government consultation:

- Restrictions on vape flavours: Restrictions could negatively impact people using vaping products to stop smoking.
- Vaping in public places: The charity would support schools and areas with children and young people becoming vape free. However, public places like hospitals should be exempt to lessen the risk of people who smoke being deterred from using vapes as a quit tool.

More research is required in the following particular areas of note:

- To better understand the levels of use and effects of vaping upon people with cancer.
- To better understand the effectiveness of vaping products as stop smoking aids in specific populations such as people with a mental illness, pregnant women and people with cancer.
- To better understand if a gateway effect exists (whereby people using vaping products move on to tobacco smoking).
- To better understand whether vaping exposes users to any unique harmful chemicals that are not present in tobacco smoke, as well as the long-term effects of vaping both in people who do and do not smoke.
- To better understand the safety of flavour ingredients, the role of flavours in appealing to those who are looking to stop smoking and any impact of flavours on the effectiveness of vaping products in supporting people to stop smoking.
- To better understand specific requirements for the most effective packaging and product designs to deter young people from vaping while not undermining use in people stopping smoking.
- To better understand if there is a difference in the efficacy of disposable and reusable vaping products as a stop smoking aid.

Smoking and cancer

Tobacco smoking is a global public health issue and the leading cause of preventable ill health, health inequalities[1] and early death in England.[1-3] Smoking harms nearly every organ of the body and increases the risk of developing many serious health conditions.[4] As many as two-thirds of people who smoke long-term will die from a smoking-related disease if they do not quit.[5,6] Even people who smoke socially are at a higher risk of illness and death compared to people who have never smoked.

An estimated 64,000 people die from smoking every year in England and the impact of smoking across our region is considerable. In Yorkshire[2], nearly 7,000 people die from smoking each year, which equates to 19 people a day.[7] The societal costs of smoking in Yorkshire are significant, totalling £4.1bn a year.[8]

The link between tobacco smoking and cancer is clear. Tobacco smoke is known to contain at least 80 chemicals which cause cancer and is responsible for approximately 14.7% of all cancers in England.[9] These chemicals enter the blood stream and affect the entire body, which is why smoking has been linked to at least 15 different cancer types, the largest number of cancers compared to any other preventable risk factor.[10] Thus, smoking is the leading cause of preventable cancers and, moreover, the cancers it causes are the ones with very poor outcomes such as cancer of the lung, oesophagus and pancreas.[10,3]

Reducing rates of smoking to prevent future cancers is an important factor in helping people in Yorkshire to live long and healthy lives free of cancer. In 2023, at 12.4%, Yorkshire had the second highest prevalence of adults who smoke in England compared to other regions (England average 11.6%).[7] Smoking prevalence varies hugely across the region with rates as low as 5.5% in Selby and as high as 17.8% in Doncaster.[7] The most deprived areas of our region are also the places with the highest rates of smoking, indicating the need for more free specialist support accessible to those in the local community.[7,11] Smoking accounts for at least half of the difference in life expectancy between the richest and poorest of society.[12]

Cessation is the gold standard for reducing harm from tobacco and declines in smoking tend to be driven by both ends of the spectrum: more people stop smoking and as smoking becomes 'denormalised' in society fewer people start smoking.[13] However, achieving very low rates of smoking requires government to implement a combination of strong tobacco control policies, comprehensive smoking cessation services and clear tobacco harm reduction strategies.[14,4] The UK has some of the most comprehensive tobacco control policies in the world which has halved the number of people who smoke in the last 35 years but more must be done.[15]

[1] Defined as preventable differences in health outcomes between different population groups.[11]
[2] Our definition of Yorkshire is aligned with the Yorkshire and the Humber boundary, with the exception of North and North East Lincolnshire, and Bassetlaw, which are excluded from these calculations. Data for Yorkshire and the Humber may be used for indicators where smaller geographical breakdowns are not available and are labelled as such.
[3] For more information related to how smoking causes cancer, please see Yorkshire Cancer Research's Evidence Review on Tobacco and Smoking (available on request).
[4] For more information, refer to Yorkshire Cancer Research's Evidence Review on Tobacco and Smoking (available on request).

Based on the latest data from 2023, national and regional smoking rates are declining at a steady, but slow, rate. At the current rate of progress, neither England nor Yorkshire are set to reach the 2030 smokefree target of 5% smoking prevalence. The charity estimates Yorkshire will not meet this target until 2043.

Local stop smoking services provide a combination of expert behavioural support and stop smoking aids. They offer people who smoke the best chance of quitting, with people using them being three times as likely to quit successfully compared to those who use willpower alone. Since 2015, there have been significant cuts to public health spending. These cuts are more pronounced in areas of greatest need such as Hull.[16] The Government committed an additional £70 million in 2025/26 to smoking cessation services.

Local stop smoking services should utilise this increased funding settlement to consider innovative offers to attract more people who smoke into the programmes available. Every local authority should utilise this increased funding settlement to offer vaping products as part of their smoking cessation provision.

Tobacco harm reduction strategies recognise that some people who smoke may find it very difficult to stop smoking. The life expectancy of people who smoke could be radically improved by supporting as many as possible to stop smoking completely and for good. Vaping products can support people who are stopping smoking by providing them with the nicotine to which they are addicted without the harmful chemicals found in tobacco smoke. Yorkshire Cancer Research encourages people who are using vaping products as an alternative to smoking, to continue to use them for as long as needed to prevent a relapse to smoking. When there is no risk of relapse to smoking, Yorkshire Cancer Research encourages people to stop using vaping products and become nicotine-free. Some people may be able to stop using vaping products within a few months, but others may need to continue to use them for a longer period of time.

Introduction to vaping products

Vaping products are an effective smokefree harm-reduction option for people who smoke.[14] They are a battery-powered device that simulate the sensation of smoking and can effectively deliver nicotine within an inhalable aerosol by heating an 'e-liquid' that includes propylene glycol and/or glycerol, and flavourings.[17] Users can choose the strength of nicotine in the e-liquid they use, up to the legal limit of 20mg/ml.[18] Non-nicotine containing (0mg/ml) e-liquids are also available.

Despite national consensus from the UK's leading health organisations that they are far less harmful than cigarettes, vaping products have been met with considerable uncertainty by the general public, fuelled by ongoing misinformation and misreporting by the media.[14, 19-23]

Local health providers and health care professionals have also been hesitant to offer vaping products as a treatment option for quitting smoking, with anti-vaping rhetoric and poor science published in academic journals.[21, 24-26] Concerns are expressed regarding their effectiveness as a stop smoking aid, whether they encourage people who do not smoke to experiment with nicotine, their short and long-term safety, and whether current regulations are sufficient to protect those who do not smoke from taking up vaping.

Vaping products as stop smoking aids

The best thing a smoker can do for their health is to stop smoking completely and for good; it is never too late to quit.[27] Stopping smoking before the age of 40 lowers the risk of dying from smoking-related disease by about 90%.[28] Stopping at any age can lengthen and improve quality of life, even for those with a smoking-related illness.[27]

Vaping products have been the most popular stop smoking aid in England since 2013.[29] This is because they provide similar delivery, sensory and behavioural cues to tobacco smoking, they also have a socially acceptable, non-medical image, they are easily accessible and often cost less than tobacco cigarettes. Among adults who had vaped more than once or twice (irrespective of smoking status) the majority of reasons for vaping are centred around factors relating to smoking, such as using as an aid to quit, preventing relapse, or to save money compared to tobacco smoking.[30]

The evidence suggests that vaping products are more effective at supporting people to stop smoking than Nicotine Replacement Therapy (NRT). A 2019 research trial that was carried out in English stop smoking services found that people who smoke using vaping products were nearly twice as likely to stop smoking as those using NRT.[31] It is estimated that there are up to 50,700 additional quitters annually in England because of these products.[32] Yorkshire Cancer Research estimates that there are over 4,600 additional people stopping smoking each year in Yorkshire because of these products.

The scientific evidence of the effectiveness of vaping products compared to NRT in supporting people to stop smoking is growing, with reports of people using them being twice as likely to stop smoking successfully.[31] A recent Cochrane review concluded that there is high-certainty evidence that nicotine-containing vaping products increase quit rates compared to NRT and moderate-certainty evidence that they increase quit rates compared to non-nicotine vaping products.[33] The review also found no evidence of serious harm from using vaping products for stopping smoking, noting that more reliable long-term evidence is still needed but that their use must be weighed against the potential harm from continued smoking.[33]

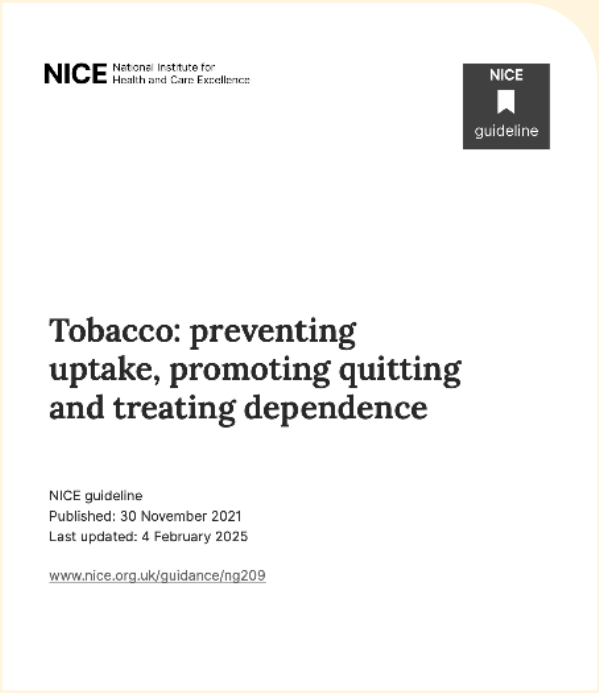
In 2021, the National Institute for Health and Care Excellence (NICE) guidelines for '*Tobacco: preventing uptake, promoting quitting and treating dependence*' were updated to bring together and update all of NICE's previous guidelines on using tobacco.[19] In reference to vaping products, the guidance now states that nicotine-containing vaping products should be made available as a stop smoking intervention to adults who smoke and are trying to stop. This is alongside other interventions such as behavioural support, and medicinally licensed products such as NRT. Coupled with the updated NICE guidance, the National Centre for Smoking Cessation and Training (NCSCT) have updated their related advice to local stop smoking services on how to incorporate vaping products into their service provision.[34]

Yorkshire Cancer Research continues to support the use of vaping products as a stop smoking aid. Furthermore, the charity believes that local authorities which do not currently provide vaping product starter packs as part of their cessation offer should amend their offer to ensure the preferences of a greater proportion of people who smoke are supported.

Vaping after a cancer diagnosis

Stopping smoking after a cancer diagnosis can not only improve recovery from surgery but may also improve outcomes after chemotherapy and radiotherapy.[35-37] Therefore, people with cancer who smoke should be supported to stop smoking with behavioural support and the use of quit aids that work for them. However, there is limited evidence on the prevalence or effect of vaping within this population.

The 2022 Office for Health Improvement and Disparities (OHID) report found no studies that examined how vaping affects people with a previous or existing cancer condition.[20] Indeed, there are very few studies that report smoking or vaping prevalence among cancer survivors, and none from the UK were reported. This is a crucial area that must be more thoroughly researched with current baseline data obtained reliably across large patient groups, to understand the role of vaping as a smoking cessation tool and the effects of vaping on people with cancer.



Trends in vaping product use

Vaping product use in adults

Vaping products have become increasingly popular since they became widely available and almost all adults are aware of vaping products.[23] It is estimated that the current vaping prevalence in adults in Great Britain[5] rose to a record 10.7% in 2024, which is equivalent to 5.6 million adult vapers.[23] However, 53% of vapers are people who used to smoke, indicating that vaping products are a viable option that enable people to become and stay smokefree.

The Yorkshire Cancer Research commissioned YouGov survey asked 2052 adults in Yorkshire about their views and use of vaping products. The survey found that 14% of adults in Yorkshire currently vape.[38]

According to the 2024 Action on Smoking and Health (ASH) survey, current vaping is most common in younger and middle-aged age groups (18- to 54-year-olds) with rates dropping off in the over 55s. The 25- to 34-year-old age group has the highest vaping prevalence overall with 16% of this group thought to currently vape. On the basis of this ASH data, Yorkshire Cancer Research estimates there are at least 446,018 adults in Yorkshire who currently use vaping products. This includes an estimated 236,390 people who used to smoke, 173,947 people who smoke (dual users), and 35,681 people who never smoked.[23,39]

Following many years of increasing rates of vapers being people who used to smoke, the latest data shows a significant decrease in the proportion of vapers who are in this group between 2021 and 2024.[23] This indicates more must be done to communicate the importance of stopping smoking completely when switching to a vaping device, and also ensuring that people have the support needed to stop smoking.

ASH data also shows that vaping in people who have never smoked is rising although regular use in this group remains rare at 1.6%.[23] Increasing rates of vaping product use among this group is concerning. A further 8.1% of this group have tried vaping. Although vaping products are significantly less harmful than smoking, they are not risk-free and therefore may expose this group to harm that would otherwise be avoided. Despite this increase in vaping product use among people who have never smoked, rates of smoking continue to decrease, which suggests that currently, vaping product use is not leading to tobacco smoking.[7]

Vaping prevalence is higher in individuals with a lower socio-economic status.[20] This is unsurprising given that tobacco smoking follows the same pattern. It is more common for people who smoke from this group to use vaping products to quit smoking but then to continue vaping, compared to less deprived populations.[40] People who smoke from higher socio-economic groups are more likely to use vaping products to quit smoking and then also stop vaping.

[5] In this instance, data is available for the adult population at Great Britain level only. England level data is only available for the 16+ population.

Vaping product use in young people

Almost all young people in Great Britain (aged 11 to 17 years) are aware of vaping products. The 2024 ASH report states that most young people in Great Britain have never tried vaping products (82%), while 18% have ever tried them.[23] This was a decrease from 20% in 2023. The majority of this use is likely in young people who either currently or used to smoke. Regular use[6] remains relatively uncommon (4% of all young people), though there have been sustained increases in the percentage of young people regularly using vaping products from 2021, when 1% of young people did so.[23] From this, the charity estimates that there are 18,774 young people who regularly use vaping products in Yorkshire.

Among young people who currently smoke, 54% vape regularly. In comparison, among young people who have never smoked, less than 1% use vaping products regularly. Rates of vaping increase as age increases; however, use of vaping products in young people does not seem to vary by socio-economic status.[23]

Reasons given by young people for using vaping products differ significantly according to smoking status, with smoking-related factors often cited by people who have ever smoked.[23] The 2024 ASH youth survey presented the most common reasons for trying or using vaping products among 11 to 17 year olds. Among young people who had never smoked a tobacco cigarette, only 11% said they used a vaping product because they liked the flavours, whereas the majority (51%) said they used them to give them a try and a further 18% said it was because other people were using them.[23] The main reason for using vaping products in people who have ever cigarette smoked in the 11 to 17 year old group was also 'just to give it a try' or because other people were using them, but this was a much smaller proportion than in the people who have never smoked (24%).[41] People who have ever smoked were far more likely than those who have never smoked to report their reasons for using vaping products as 'I think it helps me with my stress or mental health' (10% vs. 3%), 'I enjoy the experience' (9% vs 5%), or 'I use them instead of smoking' (6% vs 0.4%).[41]

Behaviour in young people has changed over the years that vaping products have been available, with a move to young people trying vaping without ever having tried smoking.[4] The 2024 ASH survey shows that 18% of 11 to 17 year olds in Great Britain have ever tried vaping, and 43% of this group have never tried a cigarette. Of the 11 to 17 year olds who have tried vaping and smoking, the proportion trying a cigarette before vaping has nearly halved between 2014 and 2024 (from 66% to 35%).[41] Of the same group, the proportion trying a vaping product before trying a cigarette has nearly doubled between 2014 and 2023 (from 10% to 19%).[42]

[6] Defined as more than once a week.

Although vaping products are significantly less harmful than tobacco cigarettes, there is still a need to protect against people who do not smoke taking up vaping. Vaping products should not be seen as accessible lifestyle products, but as stop smoking aids for use by people who either already smoke or who are at risk of smoking (for example through relapsing to smoking). Some of the main worries are that non-smoking young people will try vaping products, leading to a generation addicted to nicotine and more worryingly, that vaping product use in people who do not smoke could act as a gateway to tobacco smoking.[43]

A 2025 systematic review found that young people who vape are more likely to progress to smoking, but that it is not clear whether vaping directly causes subsequent smoking. The study finds that as e-cigarettes become more available and use increases, smoking rates decrease more than would have been expected otherwise. However, the evidence reviewed is of very low certainty, reflecting the importance of further research in this area. A Cochrane review investigating vaping products and subsequent smoking in young people has commenced and will provide a more thorough insight into this area: the charity would urge this review to be published as soon as possible to provide more information.[44] Furthermore, analysis of smoking prevalence data in adults and young people shows that despite increasing rates of vaping prevalence, smoking prevalence continues to decrease.[45]

In addition, studies in the UK show that of those young people who do use vaping products, the majority of users are people who currently or formerly smoked.[41]

Qualitative evidence describes young people disapproving of regular vaping when outside the context of stopping smoking and also having high levels of disapproval when it comes to smoking.[46] Therefore, in principle, the current available evidence does not support the gateway theory but more research is needed to ensure that a gateway effect is not being masked by larger numbers of people who smoke quitting, compared to a possible uptake of smoking.

Safety of vaping products

Harm perceptions of vaping products
While there is a growing body of evidence that continues to show that vaping products are relatively low risk compared to tobacco smoking, this is at odds with a growing level of public misunderstanding of vaping products, with sensationalised media stories fuelling this misunderstanding.[14, 20, 21, 47, 48]

The public's perceptions on the harmfulness of vaping products are not in line with the evidence, which may stop people who smoke from switching to vaping products.[23]

The proportion of adults who smoke who thought vaping products were less harmful than tobacco cigarettes has declined from 49% in 2013 to 33% in 2024.[23] Furthermore, the proportion that believed smoking and vaping were equally or more harmful has increased fivefold from 10% in 2013 to 50% in 2024.[23]

Perceptions are similar in the general adult population. The percentage of adults who believed that vaping was less harmful than smoking remained constant between 2013 and 2022 at 42%, but saw a large decrease to 32% in 2024.[23] The percentage of adults who believe that vaping is equally or more harmful than smoking has risen hugely from 8% in 2013 to 50% in 2024.[23]

The YouGov survey for Yorkshire Cancer Research found that among adults in Yorkshire, approximately 32% of Yorkshire adults believe that vaping products were less harmful than cigarettes.[38] By contrast, approximately 59% of adults believed vaping products are equally or more harmful than cigarettes.

The proportion of 11 to 17 year olds who thought that vaping products were less harmful than tobacco cigarettes declined from 73% in 2013 to 31% in 2024.[41] In addition, 58% believed that the harm of both products was the same or that vapes were more harmful compared to 13% in 2013.[41]

The public need to be better informed about vaping products with key messages targeting their intended use and effectiveness as a stop smoking aid, and their reduced harm compared to smoking. Yorkshire Cancer Research recommends that large-scale communication is done via a comprehensive public health campaign which aims to dispel myths around vaping and provide a reliable source of information for people who smoke encouraging them to stop completely and for good, including highlighting the effectiveness of stopping smoking completely when switching to a vaping product. The charity is confident there is appetite for this as, since being published in March 2021, "*Vaping Demystified*" (produced by Yorkshire Cancer Research) has now had over 1.5 million views on YouTube.[49] As trusted individuals, healthcare professionals also need reliable information so they can give accurate advice on vaping products to people who smoke.

Risk of vaping products compared to smoking

Since vaping products came onto the UK market 20 years ago, researchers have been studying their relative harm compared to smoking. Many of the UK's leading health organisations are in agreement that vaping poses only a small fraction of the risk of smoking.[14, 20, 47] In terms of cancer risk, key chemicals of concern are present in much lower levels in vapers compared to people who smoke.[20] The use of vaping products does not involve combustion and so most of the harmful chemicals in tobacco smoke are absent from vapour – and those that are present are at much lower levels. Switching completely from smoking to vaping is likely to convey substantial health benefits over continued smoking. However, there is a need to highlight that levels of harmful chemicals tend to be higher in vapers than non-users, indicating vaping products are not risk-free and therefore should not be used by people who do not already smoke or who are not at risk of smoking.[20] Further research is also needed on whether vaping exposes users to any unique harmful chemicals that are not present in tobacco smoke, the long-term effects of vaping both in people who do and do not smoke and the relevance of pre-clinical studies to human behaviour.

Flavours

Flavours bring appeal to vapers who have switched from smoked tobacco. However, there continues to be much discussion not only around the safety of different flavours, but also in flavours acting as an attraction to people who do not smoke.

The 2022 OHID report summarises recent findings on the effects of flavourings in vaping products.[20] It was found that, regardless of flavour, the levels of some harmful chemicals were significantly reduced in people who smoke that had switched to vaping, but also that there was variation between flavours.[20] There is some concern that heating the chemicals used in flavourings may alter their composition and increase their harm or toxicity, but there are gaps in the research on this subject.[50,51] As some flavour ingredients have been marked as 'possibly carcinogenic to humans' by the International Agency for Research on Cancer (IARC), research into the safety of flavour ingredients should continue through high-quality studies that address some of the current limitations in this space.[51,52] Where chemicals are found to cause harm at a level of exposure equivalent to vaping, these have been banned from UK-regulated products.

Processes must be in place allowing updates to UK regulations so specific ingredients, found conclusively to cause harm, can be quickly banned within the UK market in order to minimise harm from vaping products. The Tobacco and Vapes Bill grants powers to regulate the substances included and flavour of vaping and nicotine products. Regulations will come into force following further consultation by the Government.

A further area of interest is the variety of flavours available which could make vaping products particularly appealing – especially to young people who do not smoke. At the same time, the benefit of a wide variety of flavours means that people who are using vaping products to stop smoking have a large range of products to choose from and have a greater likelihood of finding products that work for them.

Other countries that do not ban vaping outright have recently imposed bans on flavoured products in an effort to curb vaping in people who do not smoke and young people.[53,54] Surveys have demonstrated that fruit flavours are the most popular for young people and adults alike with tobacco flavours reducing in popularity.[23, 41]

Although flavour may have some influence in the uptake and continuation of vaping product use in young people, there is also some evidence to suggest that certain flavours are associated with a higher smoking quit rate.[55, 56] As with many areas of research in relation to vaping products, more high quality research is needed to understand the role of flavours in appealing to those who are looking to stop smoking, and whether there is any impact of flavours on the effectiveness of vaping products as tools to stop smoking. The Tobacco and Vapes Bill grants powers to regulate the content and flavour of vaping and nicotine products. Yorkshire Cancer Research believes that any restrictions of flavours could have a detrimental effect on people who use vaping products to stop smoking and it is proposed that other regulations recommended in this document may better target use in young people and those who do not smoke.

Side effects from vaping

Cochrane's living systematic review of the effectiveness of vaping products as a stop smoking aid provides a good overview of the types of reactions that people have to vaping and finds that in the short-term, people report experiencing throat or mouth irritation, headaches, coughs and feeling sick.[33] It concludes that these effects reduce over time as people continue to vape. Suspected side effects from vaping are currently reported to be at very low levels – lower than those reported for NRT products.[20] This may be because there are fewer side effects to report; however, this could also be due to a lack of knowledge of how to report side effects from vaping. The Medicines and Healthcare Products Regulatory Authority (MHRA) collects information through their Yellow Card scheme on suspected adverse events. To obtain accurate data on side effects from vaping, Yorkshire Cancer Research promotes the discussion of possible side effects by healthcare professionals and vaping product retailers and is calling for information on how to report side effects (via the MHRA's Yellow Card Scheme) to be included on vaping product packaging.

Vaping product users can sometimes generate large clouds of vapour, which has previously raised concerns about the impact on air quality and whether the components of vaping product vapour are harmful to non-users. The latest evidence review within the 2022 OHID report on nicotine vaping in England concluded that the level of chemicals found in exhaled vapour were unlikely to lead to any health implications to bystanders.[20] They found that short exposure to vapour (i.e. normal use) did not result in any noticeable changes to levels of chemicals measured in non-users.[20] However, in situations where exposure to secondhand vapour is heavy and sustained over a long time, levels of nicotine and potentially harmful chemicals were higher and therefore health risks may be present, although this is likely to be at a much lower level than exposure to secondhand tobacco smoke.[20] Some people with specific health conditions may also experience short-term effects from exhaled vapour, for example vapour may act as an irritant for people with asthma.[57] Vapers should be mindful of their environment and follow relevant guidance and signage on vaping across different locations.

There is some risk of fire from vaping products. The root cause of these fires is likely to be through a malfunctioning lithium-ion battery.[58] The rates of fire from vaping products are significantly lower than from traditional smoking materials and more comparable in terms of numbers to fires related to mobile phones.[58]

There is some risk of poisoning from the ingestion of nicotine-containing e-liquids (i.e. swallowing the e-liquid directly rather than inhaling in its vapourised form). Poisoning is rare but of those that do occur the majority of incidents are in young children.[20] These are often accidental and preventable but can be fatal in rare cases. Care should be taken to ensure vaping products are kept out of reach of children, as is done for other nicotine-containing products and common household cleaning products.

Vaping product regulations

The UK has some of the tightest regulations on vaping products in the world.[59, 60] These regulations ensure minimum safety and quality standards and cover nicotine strength, health warnings, advertising, childproof packaging, and a ban on certain ingredients.

However, whilst measures outlined in the Tobacco and Vapes Bill are welcome, recent data indicates further restrictions are required to protect against the use of vaping products in people who do not smoke. Any restrictions implemented must not have a significant effect on the use and availability of vaping products as a stop smoking tool for those who are using them to quit smoking. Irrespective of age, switching to vaping from smoking still presents a significantly lower level of risk.

Purchasing and retail regulations

To protect against the purchase of nicotine-containing vaping products by young people, minimum age of sale and proxy purchasing[7] laws of 18 years were introduced in 2015.[61] However, the 2024 ASH youth survey found that, despite it being illegal, over half (54%) of those aged 11 to 17 regularly using vaping products were given them and 48% purchased them from shops (indicating potential proxy purchasing, or inconsistent identification checks).[41]

The Tobacco and Vapes Bill will ban the free distribution of all vaping and nicotine products. It will also prohibit the purchasing of all vaping and nicotine products on behalf of under 18s. The Bill will introduce a new licensing scheme, for which retailers will require a license to sell tobacco, vaping and nicotine products. These measures will further restrict the ability of children to access non-nicotine containing vaping liquids, known as 'short-fills', which can then be combined with nicotine shots of different strengths.[58]

To tighten regulations and decrease the accessibility of vaping products to people who do not smoke, Yorkshire Cancer Research recommends:

- Introducing a 'Challenge 25' approach for all tobacco and vaping products, as is commonplace for the sale of alcohol.
- Introducing regulations to restrict the display and sale of vaping products to behind the counter locations in retailers such as supermarkets and off-licences, reducing their visibility and accessibility. If this is implemented, it is important that retail marketing clearly distinguishes the reduced health risks of vaping compared to smoking.
- Restrictions should not apply to the free distribution of vaping products when specifically for use as a tool to stop smoking for example, via a local stop smoking service, in a healthcare setting or in a research study.

[7] Proxy purchasing occurs when a person over age 18 buys a vaping product on behalf of someone underage.

Vaping products: advertising, marketing, branding and enforcement

Advertising

Advertising of vaping products through certain channels is prohibited – these channels include television (including on-demand), radio, through information society services (for example, internet advertising, email) and in certain printed publications like newspapers and magazines.[59, 62] Sponsorship of television and radio programmes or product placement of vaping products is also prohibited.[63]

Despite current advertising regulations in the UK being relatively comprehensive, not all platforms are covered to the same extent, for example, advertising and product promotion through social media platforms such as TikTok and Instagram is not as well-regulated as other advertising platforms, despite restrictions being in place.[20] This is an area of significant concern and vaping product promotion must be tackled: regulations must be put in place to remove current loopholes and protect young people from being exposed to images and videos of people vaping on social media platforms and in other environments.

The Tobacco and Vapes Bill seeks to address this issue, by including provisions to regulate the advertising of vaping and nicotine products. The Bill prohibits the design, printing, publication and distribution of advertisements of all tobacco and nicotine-based products, including vaping products. Furthermore, it will be made illegal to provide an internet service which enables an advertisement to be published or distributed.

Another area of concern includes the advertising of vaping products and brands via sports sponsorship where promotion is targeted to a wide global audience.[64, 65] Yorkshire Cancer Research therefore welcomes measures in the Tobacco and Vapes Bill which aim to close existing sponsorship loopholes for all vaping and nicotine products.

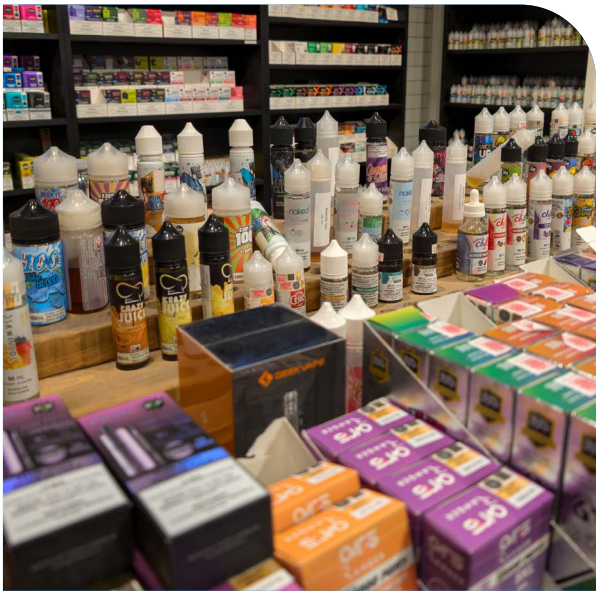
Marketing

It has been reported that a third of young people believe marketing of vaping products is targeted at people who do not smoke.[66] This may be an effect of the current advertising rules that state health claims cannot be made for vaping products unless they are medically licensed, and current regulations include being unable to say that they are an effective tool to help people stop smoking.[67]

Given the high-certainty evidence that now exists for unlicensed but UK-regulated[8] vaping products being effective tools for stopping smoking, and the NICE recommendation that vaping products are used as tools for stopping smoking, Yorkshire Cancer Research proposes that the Government looks into the current Advertising Standards Authority (ASA) requirement for a MHRA licence in order to be able to say that vaping devices can be used for smoking cessation or reduction. It would be helpful if a mandatory prominent statement could be included on all vaping products that undergo the MHRA notification process indicating these products are intended as a tool to stop smoking. Yorkshire Cancer Research would recommend that behaviour change experts are consulted and research conducted into the most effective wording for such a statement.

Branding and packaging

Vaping product branding and packaging covers a wide spectrum of design elements. Some product branding is sleek and elegant, while others are sold in bright packaging with cartoon imagery or branding very similar to confectionery items. There is a concern that vaping product branding could therefore increase appeal to people who do not smoke and particularly young people. The 2021 ASH survey of young people found that, among those who had never smoked, the level of brand preference was higher when brand imagery was present on packaging compared to a lower preference when no brand imagery was included.[41, 68] However, among adults who smoke it has been found that there is no statistically significant difference in likelihood to using a vaping product starter pack whether it had brand imagery or not.[41] Furthermore, a recent study investigated the impact of standardised vaping product packaging and found this reduced the appeal to young people by a quarter but did not discourage adult use.[41, 68]



In a 2022 survey, over two thirds of retailers said they would support the introduction of regulations to reduce the appeal of vaping products.[69] Suggested regulations included prohibiting colours, cartoon characters and the name of sweets that may be appealing to children.[69]

Taken together, these findings indicate that placing restrictions on branding and imagery used for vaping products is another area in which new regulations could reduce appeal to young people without significantly impacting adults who smoke switching to vaping as a method of stopping smoking.

Yorkshire Cancer Research welcomes the measures in the Tobacco and Vapes Bill which will grant powers to regulate the packaging of vaping and nicotine products. The power could be applied to regulate retail packaging, including the internal and external packaging of the product, along with any other material attached to or included with the product. A refill container containing a vaping liquid could be treated as packaging for these purposes. The Government will decide upon regulation following further public consultation.

In addition, Yorkshire Cancer Research supports further research into standardised packaging for vaping products, and if shown to be effective in reducing appeal to young people while not undermining use by people who smoke, would be supportive of its introduction for vaping products.

[8]UK-regulated vaping products: prior to being sold in the UK, a notification must be submitted to the MHRA for all vaping products. The product can only be launched once the MHRA publishes the notification.

Disposable vaping products

There has been a surge in the popularity of single use, disposable vaping products among young people, from 8% choosing disposable products in 2021 to 54% in 2024.[41] Increased popularity of disposables is coupled with an increase in youth vaping, although the causal relationship has not yet been established. There has also been an increase in the popularity of disposable vaping products among adult vapers, albeit on a smaller scale – from 2% in 2021 to 30% in 2024.[23] The most popular type of product in adults generally is a refillable tank model.[23]

The most popular brands are characterised by their vibrant colours and packaging, and are available in flavours such as 'Pink Lemonade' and 'Cherry Cola'. [70, 71] Corresponding to the increase in their popularity, there has been a steady increase in vocal concern over the use of disposable vaping products by young people as well as their negative impact upon the environment.[72, 73]

In October 2024, the Government announced a ban on disposable vaping products from 1 June 2025. The two key reasons cited for the ban were to reduce the appeal of disposable vapes for children and young people and to address their environmental impact.[74] The YouGov survey for Yorkshire Cancer Research found that 79% of Yorkshire adults surveyed support the proposed ban on disposable vapes.[38] Concerningly, of those people in Yorkshire who currently use disposable vapes, 18% said that they will move to cigarettes or other tobacco products when the ban is introduced.

When any vaping regulations are set or updated, Yorkshire Cancer Research recommends that potential loopholes are closed off as much as possible, and regulations are not only fit for purpose now but also try to cover new products that may enter the market in the coming months and years.

Conclusion

Yorkshire Cancer Research believes that the best thing a smoker can do for their health is to stop smoking completely and for good.

Alongside behavioural support and licensed stop smoking aids, the charity believes that vaping products have a significant role to play in reducing the harm from tobacco, supporting people who smoke to quit and thus improving public health. We take this position for two key reasons:

- Because evidence shows that vaping products are far less harmful than smoking.

- Because they are the most popular stop smoking aid in England and there is clear evidence that they effectively support people who smoke to quit

We believe that local authorities which do not currently provide vaping product starter packs as part of their cessation programme should amend their offer to ensure the preferences of a greater proportion of people who smoke are met.

Furthermore, we believe that every person who smokes should be given accurate and balanced information about the relative risks of vaping and smoking, as well as the effectiveness of vaping products as stop smoking aids, to allow them to make informed decisions. More must be done to educate the general public about vaping products reiterating that although vaping poses only a small fraction of the risk of smoking, these are products for people who already smoke. A key way of addressing this is through mass media campaigns.

In the context of a growing proportion of people who have never smoked taking up vaping, Yorkshire Cancer Research are very clear that regardless of age, people who do not smoke, or people who are not at risk of smoking (for example, relapsing to smoking), should not vape and agree that there is a need to prevent uptake in these groups.

To tackle rising rates of vaping in the non-smoking population, particularly among young people, retail restrictions must be increased, stricter rules on advertising must be enforced and branding must be tightly regulated with restrictions on brands and marketing introduced as soon as possible. We also propose that the Government looks into the feasibility of including a mandatory prominent statement on all vaping products that undergo the MHRA notification process, to clearly indicate these products are intended as a tool to stop smoking.

Finally, Government and regulators must be challenged to continue to provide a legal and regulatory framework that not only permits but actively assists current and future users to access a product that improves their health by reducing rates of smoking.

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