The UK Electronic Cigarette Research Forum Briefing

UKECRF

cruk.org

CANCER RESEARCH UK

Together we are beating cancer

Electronic Cigarette Research Briefing – August 2026

This research briefing is part of a series of quarterly updates aiming to provide an overview of new studies on electronic cigarettes (e-cigarettes). The briefings are intended for researchers, policy makers, health professionals and others who may not have time to keep up to date with new findings and would like to access a summary that goes beyond the study abstract. The text below provides a critical overview of each of the selected studies then puts the study findings in the context of the wider literature and research gaps.

The studies selected do not cover every e-cigarette-related study published each quarter. Instead, they include high profile studies most relevant to key themes identified by the UK Electronic CigaretteResearch Forum, including efficacy and safety, smoking cessation, population level impact and marketing. For an explanation of the search strategy used, please see the end of this briefing.

Let's talk e-cigarettes – University of Oxford podcasts Jamie Hartmann-Boyce and Nicola Lindson discuss emerging evidence in e-cigarette research. In the latest episode, they interview
Stefanie Gratale, Rutgers School of Public Health, USA. This podcast is a companion to the Cochrane living systematic reviews of e-cigarettes for smoking cessation and interventions for vaping cessation and shares the evidence from the monthly searches. Subscribe with iTunes or Spotify to listen to regular updates or find all episodes on the University of Oxford Podcasts site. This podcast series is funded by Cancer Research UK (CRUK).

Cochrane Living Systematic Review of E-cigarettes for Smoking Cessation update
The latest update to the CRUK-funded Cochrane Living Systematic Review of E-cigarettes for Smoking Cessation was published in August 2026 and includes 9 new studies.

New Cochrane Living Systematic Review of Interventions for Quitting Vaping
A new Cochrane Living Systematic Review of interventions for vaping cessation was published in November 2025. It includes 15 studies, with low certainty evidence of effectiveness of a text message-based intervention in young people and of varenicline; there wasn't enough evidence on other interventions to draw any conclusions. Searches for this review are now undertaken monthly, with the review updated any time new studies emerge that could change, strengthen or weaken the conclusions. The first update is currently underway.

Visit the website (https://www.cebm.ox.ac.uk/research/electronic-cigarettes-for-smoking-cessation-

You can find our previous research briefings at www.cruk.org/UKECRF.

If you would prefer not to receive this briefing in future, just let us know.

Commentary

Our first three studies this month focus on vaping in youth. **MacGregor *et al*** highlight the potential disruptions posed by youth vaping through a qualitative study in four Scottish schools. Both pupils and teachers reported widespread use of vapes and, to a lesser extent, nicotine pouches. Negative impacts reported included truancy, missed lessons, disciplinary issues, triggering of fire alarms, and potential adverse health effects (although at least some of these may have been due to nicotine pouches rather than vapes). Efforts to counteract vaping and pouch use in schools included patrols, monitoring of toilets, and visiting neighbourhood shops. The authors conclude that school staff require increased training about vaping and pouches, though note schools cannot deal with this issue in isolation and would like support, including from parents and retailers.

Both **Poliakova *et al*** and **O'Connell *et al*** present research that can inform future avenues for intervention and research to curb youth vaping. **Poliakova *et al*** use cross-sectional data from Canada to investigate barriers to vaping cessation amongst adolescents who had tried to quit. The most common barriers included addiction, mood issues, fears of failure, and not knowing how to quit. Weight gain concerns were also commonly expressed as a barrier among females. Overall, females, older adolescents, people using other tobacco products in combination with vaping and those experiencing more socioeconomic disadvantage reported greater barriers. The authors highlight the need for further research into the various challenges to quitting vaping that young people face, as well as tailored interventions for particular groups. **O'Connell *et al*** conducted a cross-sectional survey of young people in the US to investigate associations between hypothetical e-cigarette purchase and advertising and product display locations in retail environments. Advertisements on store doors/windows and near checkouts made participants most likely to want to purchase e-cigarettes, as did product display near snacks or candy. Of the 13-20 year olds surveyed, one in six reported receiving a free sample of an e-cigarette in a retail store. The authors recommend policy and awareness efforts to reduce the impact of advertising, displays and free samples on young people. Powers created by the Tobacco and Vapes Act 2026 allow for regulation addressing these.

The final two studies look at the use of e-cigarettes for smoking cessation. **Soar *et al*** present a synopsis of the SCeTCH trial, which evaluated an e-cigarette smoking cessation intervention compared to usual care amongst British adults accessing homelessness services. More people quit in the e-cigarette arm than usual care arm, but quit rates were low overall and confidence intervals included the possibility of no difference. Zooming out, however, **Wu *et al*'s** overview of reviews provides clear evidence on the effectiveness of e-cigarettes for quitting smoking. The overview synthesizes findings of 14 systematic reviews, and across 21 meta-analytic comparisons of nicotine EC versus other interventions, all reported point estimates favoured nicotine EC for smoking cessation.

Overall, this quarter's findings remind us that the impact of nicotine e-cigarettes varies between groups, and that research and action are still needed to maximise their potential for smoking cessation while preventing uptake among children and those who have never smoked. **You may also be interested in the 2026 ASH Fact Sheets on use of vapes and other novel tobacco and nicotine products among adults and young people in Great Britain.**

MacGregor *et al.* 'I've got a pupil who vapes every 20 minutes': exploration of the wider impact on schools of young people's use of new nicotine products in the UK

Study aims

This qualitative study investigated the experiences and perspectives of students aged 14-16 (n=77) and staff (n=13) from four schools in Scotland on novel nicotine products, including vapes. Focus

groups were carried out with students identified by teachers as either currently vaping or at risk of taking up vaping (having people who vaped in their immediate social circle). Interviews were carried out with teachers. Participants were asked about topics including use of vapes within school and their impacts and measures taken by schools to minimise negative impacts.

Key findings

- Students reported widespread use of vapes, including in school toilets and other locations in and around school grounds.
- Impacts included frequent toilet breaks, truancy and indiscipline. Participants also reported students exhibiting signs of nicotine addiction and some immediate adverse health effects, including nausea and vomiting. However, it was unclear to what extent these were due to use of nicotine pouches rather than vapes.
- Staff reported taking measures including confiscating vapes, reporting vaping to parents and monitoring school toilets and students' toilet breaks.
- Staff expressed the wish for wider support from parents, retailers and society alongside schools in addressing vaping among school students. For example, making it more difficult for young people to purchase vapes underage and parents making it clearer that vaping is not permitted.
- Staff felt more comfortable addressing smoking than vaping in Personal and Social Education classes, due to there being more evidence available on the health effects of tobacco.

Limitations

- Participants were from four schools in Scotland, so the results may not generalise to the wider UK population.
- Students were selected based on staff perceptions of their vaping status or susceptibility, so their perspectives may not reflect the experiences of the wider school population.
- The study was carried out before the ban on disposable vapes came into force, so the findings will not reflect any changes following the implementation of the ban.

MacGregor A, Hamid A, Shields J, Minty S, Morgan AJ, Zheng C, Shortt N, Pearce J, Ford A. 'I've got a pupil who vapes every 20 minutes': exploration of the wider impact on schools of young people's use of new nicotine products in the UK. BMJ Open. 2026 May 5;16(5):e115484. doi: 10.1136/bmjopen-2025-115484. PMID: 42086271; PMCID: PMC13141196.

Poliakova *et al.* Barriers to vape (e-cigarette) cessation encountered by adolescents who attempted to quit

Study aims

This cross-sectional study used data from the 2022-23 Canadian 'COMPASS' longitudinal survey into health and related factors among Canadian secondary school students. It investigated barriers to vaping cessation reported by respondents in Quebec (n=6,808) who reported both ever vaping and ever attempting to stop vaping. Participants responded how much of a barrier seven items had been to stopping vaping (from 'not at all' to 'a large barrier') or could report that a barrier was not applicable. Responses could reflect a single cessation attempt or multiple attempts and were added together to produce a total barrier score from 0 (representing no barriers) to 21 (reporting all items as large barriers). Any associations were investigated between barriers and sociodemographic characteristics (sex, age, ethnicity and level of deprivation) and use of other nicotine and tobacco products and vaping abstinence. Vaping abstinence was defined as not vaping on any of the preceding

30 days. Current use of other nicotine or tobacco products was defined as reporting use of any in the preceding 30 days. Mean scores were adjusted for race/ethnicity, age at cannabis initiation, sex, age, material deprivation and current use of other tobacco/nicotine products.

Key findings

- 57% of participants reported experiencing at least one barrier to stopping vaping.
- The three most frequently cited barriers were 'being addicted to e-cigarette[s],' 'feeling less in control of moods' and 'fear of failing to quit.'
- Scores varied by sociodemographic and nicotine product use characteristics. Female (mean ratio=1.77; 95% CI [1.63; 1.90]) and older (mean ratio=1.37; 95% CI [1.22; 1.52]) respondents, those with higher levels of deprivation (mean ratio=1.12; 95% CI [1.04; 1.19]) and those currently using other nicotine or tobacco products (mean ratio=1.71; 95% CI [1.58; 1.85]) all had significantly higher scores.
- Female participants were more likely than their male peers to report experiencing all barriers, particularly concerns about weight gain (aRR =2.36, 95% CI [1.99-2.79]). Respondents who used other nicotine or tobacco products were also more likely than those who did not use other products to experience all of the barriers. Those experiencing higher levels of deprivation were more likely to report barriers related to lack of family and friends' encouragement, weight gain concerns, and mood control.
- There was an inverse association between overall barrier score and vaping abstinence, so that higher overall barrier scores were associated with lower likelihood of vaping abstinence. The strongest associations were found with not knowing how to stop vaping (aRR 0.35, 95% CI 0.31-0.40), being addicted to e-cigarettes (aRR 0.36, 95% CI 0.32-0.40) and fear of failing to quit (aRR 0.37, 95% CI 0.32-0.42).

Limitations

- As a cross-sectional study, it is unable to establish temporal or causal relationships.
- Findings are from a study using data from one Canadian province and may not generalise to the UK population.
- Age at vaping initiation was not available, so age of cannabis initiation was used as a proxy measure of early substance use.
- Participants were presented with a list of potential barriers, so there may have been others not listed, and there may be unmeasured residual confounding e.g. by vaping-related behaviours such as duration, frequency and nicotine concentration.
- Responses 'not at all' and 'not applicable' were combined, so it was not possible to distinguish between barriers that were relevant but not experienced and those that were not considered relevant.

Natalia Poliakova, Rosalie Bouchard, Slim Haddad, Anne-Marie Turcotte-Tremblay, Scott T. Leatherdale, Richard E. Bélanger, Barriers to vape (e-cigarette) cessation encountered by adolescents who attempted to quit, Addictive Behaviors, Volume 180, 2026, 108707, ISSN 0306-4603, https://doi.org/10.1016/j.addbeh.2026.108707.

O'Connell *et al.* Likelihood of Purchasing E-cigarettes Among Adolescents and Young Adults Exposed to E-cigarette Retail Marketing Characteristics: A Cross-Sectional Survey

Study aims

This cross-sectional US study used an online survey of young people aged 13-24 (n =5326) to investigate any association between location of e-cigarette advertising and products in retail shops and likelihood of purchasing e-cigarettes. Participants were shown photographs designed to illustrate 12 advertising and 16 product display locations in retail settings of a fictional e-cigarette brand. They were then asked how likely they would be, having seen the advertisement/product, to purchase a vape. Participants were also asked about their likelihood of purchasing a vape based on its location within the shop and in relation to the checkout counter and other products. Responses were collapsed into 'Likely' and 'Neutral/unlikely.' Responses were compared between age groups 13-20 and 21-24, as 21 is the legal minimum age of sale for vapes in the US. Covariates adjusted for were age, gender, sexual/gender minority identity, race/ethnicity, and urbanicity.

Key findings

- Associations were found between retail location and product placement and participants' reported likelihood of purchasing e-cigarettes, which differed by age group and retail setting.
- Participants aged 21+ were significantly more likely than those aged under 21 to report being likely to purchase e-cigarettes across all advertising and product locations (all p<.001).
- The highest proportion of respondents aged 21+ (29.5%) and the lowest proportion of those aged under 21 (11.9%) reported being likely to purchase e-cigarettes displayed on the 'Tobacco Power Wall' (the marketing display behind the cashier).
- Compared to participants aged 21+, those aged under 21 reported being significantly more likely to purchase e-cigarettes in a vape/smoke shop if they were kept unlocked in a part of the shop other than behind the checkout counter (p<.001) or unlocked on top of the checkout counter (p=.01).
- In a petrol station or convenience store, participants under 21 reported being significantly less likely to purchase e-cigarettes if they were kept unlocked in a part of the shop other than behind the checkout counter (p<.001), unlocked on top of the checkout counter (p=.004) and near to the snacks/food or sweets (p<.001).
- Participants who had vaped within the past 30 days or more than 30 days previously were significantly more likely than those who had never vaped to report being likely to purchase e-cigarettes after seeing advertising and product placement in all locations (p<.001).

Limitations

- As a cross-sectional study, it is unable to establish causality.
- The study was carried out in the US, so the findings may not generalise to the UK population.
- The study measures participants' perceptions of their behaviour in hypothetical scenarios rather than actual behavioural outcomes.
- The study relies on self-report and so is subject to recall and social desirability bias.
- The analysis did not adjust for current/historic use of other nicotine/tobacco products.

O'Connell MM, Lempert LK, Halpern-Felsher B, Gaiha SM. Likelihood of Purchasing E-cigarettes Among Adolescents and Young Adults Exposed to E-cigarette Retail Marketing Characteristics: A Cross-Sectional Survey. Nicotine Tob Res. 2026 Apr 22;28(5):761-773. doi: 10.1093/ntr/ntaf210. PMID: 41092277; PMCID: PMC13101986.

Soar *et al.* Effects of e-cigarettes vs usual care for smoking cessation when offered at homeless centres: the SCeTCH cRCT synopsis

Study aims

This randomised controlled trial investigated the effectiveness of an e-cigarette smoking cessation intervention compared to usual care among adults (18+) accessing homelessness services (n=475). 32 homelessness centres in Great Britain were randomised to either the e-cigarette arm (participants were provided with an e-cigarette, four weeks' supply of e-liquid and a fact sheet) or usual care (very brief advice on smoking, a support leaflet and signposting to a stop smoking service). The interventions were delivered by centre staff, following training. The primary outcome was biochemically-verified sustained smoking abstinence from 2 weeks after baseline to 24 weeks. Smoking-related secondary outcomes were biochemically-verified 7-day point prevalence abstinence, smoking reduction of 50% or more at 4, 12 and 24 weeks and changes in frequency of risky smoking practices (e.g. smoking discarded cigarettes). 16 staff and 31 participants also took part in qualitative interviews to explore facilitators and barriers.

Key findings

- There was no significant difference between the two study arms in biochemically-verified sustained abstinence at 24 weeks or reduction in risky smoking practices. However, several secondary outcomes favoured the e-cigarette intervention, as noted below.
- 7-day biochemically-verified point prevalence abstinence at 24 weeks was significantly higher in the e-cigarette arm than the usual care arm (aRR 2.95, 95% CI 1.05 to 8.29).
- Self-reported 7-day point prevalence abstinence (aRR 3.32, 95% CI 1.34 to 8.23) and 4-week sustained abstinence (aRR 2.55, 95% CI 1.17 to 5.55) were both higher in the e-cigarette arm than the usual care arm at 4 weeks
- Self-reported smoking reduction of 50% or more was higher in the e-cigarette arm at 4 weeks (aRR 2.55, 95% CI 1.83 to 3.54), 12 weeks (aRR 2.37, 95% CI 1.68 to 3.35) and 24 weeks (aRR 2.02, 95% CI 1.44 to 2.84).
- Qualitative interviews found that the intervention was generally acceptable to staff and that participants were capable of using the e-cigarette, but there were challenges in relation to both delivery (e.g. competing priorities) and effectiveness (e.g. dissatisfaction with vaping, 'smoking culture').

Limitations

- Quit rates were low, so there was insufficient power to detect any differences between study arms in relation to the primary outcome.
- Low quit rates also limited ability to adjust for individual-level characteristics and conduct sensitivity analyses.
- Loss to follow-up was greater in the usual care arm, which may have introduced bias into the qualitative aspect of the study.

Soar K, Ford A, Brown R, Pesola F, Robson D, Notley C, McMillan L, Ward E, Tyler A, Varley A, Brierley J, Lennon J, Mair C, Gardner B, Edwards A, Parrott S, Li J, Mitchell D, Reid L, Bauld L, Hajek P, Cox S. Effects of e-cigarettes vs usual care for smoking cessation when offered at homeless centres: the SCeTCH cRCT synopsis. Public Health Res (Southampt). 2026 Jul;14(18):1-33. doi: 10.3310/GJLD1918. PMID: 42446017.

Wu *et al.* Electronic cigarettes for smoking cessation: An overview of systematic reviews and evidence and gap map

Study aims

This overview synthesised the findings of 14 systematic reviews on the efficacy and safety of nicotine e-cigarettes for smoking cessation in adults published between 2015 and 2023 and meeting the criteria for inclusion in the Cochrane Review on E-cigarettes for Smoking Cessation. Study quality was evaluated using the 'AMSTAR-2' appraisal tool and defined as high or low quality. 7 of the included studies were evaluated as higher quality and 7 of lower quality. Available evidence was mapped in order to identify gaps where further research would be particularly helpful.

Key findings

- The included systematic reviews incorporated 21 underlying meta-analyses of comparisons between e-cigarettes and other smoking cessation interventions. All reported point estimates favouring e-cigarettes compared to other cessation interventions.
- 8 systematic reviews compared nicotine e-cigarettes with nicotine replacement therapy (NRT) (NRT). All meta-analyses found higher quit rates in e-cigarette than NRT arms, and in 5 the confidence intervals excluded the possibility of no difference, with risk ratios (RRs) between 1.49 and 1.67.
- 7 systematic reviews compared nicotine e-cigarettes with non-nicotine e-cigarettes or placebo. All meta-analyses found higher quit rates in the nicotine e-cigarette arms, and in 5 the confidence intervals excluded the possibility of no difference, with RRs between 1.46 and 2.09 and confidence intervals excluding the possibility of no difference.
- 2 systematic reviews compared e-cigarettes with behavioural support, both of which (one of higher quality and one of lower quality) found higher quit rates in the e-cigarette arm with confidence intervals excluding the possibility of no difference. RRs were 1.88 and 1.51.
- 4 systematic reviews compared rates of serious adverse events (SAEs) between e-cigarettes and NRT and found no significant difference, as the confidence intervals included the possibility of no difference.
- Evidence mapping found that research was concentrated on comparing e-cigarettes with NRT, or behavioural support only or no support, adverse events at 1 week or longer and carbon monoxide at 1 week or longer. It identified further comparisons in terms of smoking cessation and health outcomes that would be particularly helpful.

Limitations

- Comparisons including NRT did not distinguish between single and combination NRT.
- There was heterogeneity of underlying reviews and studies.

Wu AD, Conde M, Butler AR, Knight E, Lindson N, Livingstone-Banks J, Hajek P, McRobbie H, Begh R, Theodoulou A, Notley C, Turner T, Zhitnik E, Hartmann-Boyce J. Electronic cigarettes for smoking cessation: An overview of systematic reviews and evidence and gap map. Addiction. 2026 Aug;121(8):1957-1971. doi: 10.1111/add.70388. Epub 2026 Mar 26. PMID: 41887411; PMCID: PMC13357930.

Search strategy

The PubMed database is searched in the middle of every third month, for the previous three months using the following search terms: e-cigarette*[title/abstract] OR electronic cigarette*[title/abstract] OR e-cig[title/abstract] OR (nicotine AND (vaporizer OR vapourizer OR vaporiser OR vapouriser OR vaping)).

Titles and abstracts of newly published e-cigarette studies are screened for relevance to health, the UK and the UKECRF. The findings of the included studies and the views expressed are those of the authors and do not necessarily reflect those of Cancer Research UK. Only peer-reviewed primary studies and systematic reviews are included – commentaries are not included. Please note studies funded by the tobacco industry are also excluded.

This briefing is produced by Julia Cotterill from Cancer Research UK with assistance from Associate Professor Jamie Hartmann-Boyce at the University of Massachusetts Amherst, primarily for the benefit of attendees of the CRUK UK E-Cigarette Research Forum. If you wish to circulate to external parties, do not make any alterations to the contents and provide a full acknowledgement. Kindly note Cancer Research UK cannot be responsible for the contents once externally circulated.